

GOVERNMENT OF TELANGANA



COMMON SCHEDULE OF RATES AS PER T.G. STANDARD DATA FOR THE YEAR 2025-26 (Effective from 1st June 2025)

BOARD OF CHIEF ENGINEERS

MASTER INDEX

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Proc.No. ENC/Admn/Dy.EnC/EE(Tech)/DEE-1/AEE-3/SoR 2025-26/Vol.I Dt:18.06.2025

Sub: Schedule of Rates as per Telangana Revised Standard Data for the year 2025-26 -Irrigation & CAD works(Part-I), Road & Bridge Works (Part-II), Building Work Items(Part-III) and Public Health Items (Part-IV) - **Approved** - Printing & Communication of **SoRs** - Reg.

Ref: 1) G.O.Ms.No.49,I&CAD (PW:Reforms)Dept., dt:02.03.2009
2) The Commissioner, Labour Dept. Lr. No H1/MW/15/2025, Dt.05.05.2025
3) Minutes of Board of Chief Engineers (BOCEs) meeting on finalization of Schedule of Rates 2025-26 held on 30.05.2025.
4) CE (SR & CRN) R&B Dept Lr. No: 1371/SOR/DCE(R)/EE(R)/DEE4/AEE7/2025-26, dt.13.05.2025 & 03.06.2025.
5) ENC (PH) Lr.No.146/ AEE-4/T3/SoR/2025-26, Dt.29.05.2025 & 04.06.2025.
6) CE(Buildings) R&B Dept Lr no.DEE.II/AEE10/Blgds/SOR 2025-26, dt.06.06.2025.
7) CE(Electrical) R&B Dept Lr No. CE/Electrical/R&B/Hyderabad/SOR 2025-26, dt.10.06.2025.

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The Government have approved Revised Standard Data vide ref 1st cited. The Schedule of Rates as per Telangana Revised Standard Data for the year 2025-26 is approved based on the following.

The Engineer-in-Chief (Admn), I&CAD Dept., has furnished the draft rates proposed for Labour Rates and Basic data for Irrigation Items Part-I of Common SoR for the year 2025-26.

The Chief Engineer (SR & CRN), R&B Dept has furnished the draft Schedule of rates for the Part-II of Common SoR for Roads & Bridge items for the year 2025-26.

The Chief Engineer (Buildings), R&B Dept has furnished the draft Building Schedule of rates for the Part-III of Common SoR for Civil, Plumbing & Electrical items for the year 2025-26.

The Engineer-in-Chief (PH), PH&ME Dept has furnished Part-IV of Common SoR for Public Health works items and Public Health Materials for the year 2025-26.

The draft schedule of rates for the year 2025-26 as furnished by the Engineer-in-Chief (Admn), I&CAD Dept., Chief Engineer (SR & CRN), R&B Dept., Chief Engineer (Buildings), R&B Dept., and Engineer-in-Chief (PH), PH&ME Dept were discussed in detail and finalized in the annual Board of Chief Engineers meeting held on 30.05.2025 at 03.00 PM in BOCE's Conference hall, Jalasoudha, I&CAD Dept., Hyderabad.

The approved basic rates are applicable to the datas as per Revised Standard Data approved by the Government vide G.O.1st cited.

The Government vide G.O. MS.No.15 T.R&B(R-1) Department Dt: 24.12.2014 have issued orders for adoption of MoRTH data by all Engineering Departments of Telangana State in respect of Road and Bridge works, with prevailing Standard Schedule of Rates in preparation of estimates. The Government approval is necessary to adopt any other data.

The lead & lift charges are common to all Engineering Departments. The detailed calculations are incorporated in the Lead & lift chapter in the I&CAD Works (Part-I) of Telangana Revised Standard Data.

One hard copy & compact disc containing Schedule of Rates is here with communicated.

No other items other than the items communicated by this office shall be introduced in the SoR.

The Heads of Department and Officers mentioned below are authorized to print the Schedule of Rates for the year 2025-26. The unauthorized printing & selling of the SoR is strictly prohibited. The Schedule of Rates for 2025-26 will be in force until the new SoR comes in to force.

Any discrepancies found (or) corrections required in SoR 2025-26 may be brought to the notice of the undersigned for issuing necessary corrigendum/ addendum.

The revised rates will come into force from 1st June of 2025.

The receipt of the proceedings may be acknowledged.

Encl: SoR 2025-26 containing Part-I (Irrigation & CAD works), Part-II (Road & Bridge works) Part-III (Buildings works) and Part-IV (Public Health works)

Sd/- Mohd Amjad Hussain, (Dt:18.06.2025)

Engineer-in-Chief(Admn)

Irrigation & CAD Department and
Chairman, Board of Chief Engineers

To,

- I. The following Heads of Departments along with Enclosures for information and necessary action.
 1. Engineer-in-Chief (P.H.), PH & ME Department.
 2. Engineer-in-Chief (P.R.), Panchayat Raj Department.
 3. Engineer-in-Chief, Mission Bhagiratha Department.
 4. Chief Engineer (SR & CRN), Roads & Buildings Department.
 5. Chief Engineer (Buildings), Roads & Buildings Department.
 6. Chief Engineer (Electrical), Roads & Buildings Department.
- II. Copy submitted to the Principal Secretary to Government, I&CAD Dept., 4th Floor, Dr. B.R. Ambedkar Telangana Secretariat, Hyderabad for favour of information.
- III. Copy to the Superintending Engineer, Irrigation Circle, Irrigation & CAD Department, Red Hills, Hyderabad for necessary action
- IV. Copy communicated to the DEE (computers) with a request to place the Schedule of Rates 2025-26 & Standard data, Part-1 (Irrigation & CAD works) and Proceedings in I&CAD department website for wide publicity.

Sd/- Mohd Amjad Hussain (Dt:18.06.2025)

Engineer-in-Chief(Admn)

Irrigation & CAD Department and
Chairman, Board of Chief Engineers

Preamble
(SoR 2025-26)
Common to all Engineering
Departments

COMMON PREAMBLE**1. AREA ALLOWANCES:****A) CORPORATIONS & MUNICIPALITIES:**

1. a). 25% extra over the basic rates on labour component of works is allowed in all Municipal Corporation Limits of Telangana except Greater Hyderabad (up to a belt of 12 Kms. from Municipal Corporation limits) and other corporations as notified by the Government from time to time.
- b). 40% extra over the basic rates on labour component of works is allowed in Greater Hyderabad (up to a belt of 12 Km from Municipal Corporation limits).
2. 20% extra over basic rates on labour component of works is allowed in all District Headquarters and the remaining Municipal limits (up to a belt of 12 Kms from Municipal limits).

B) JAIL COMPOUNDS:

20% extra is allowed over labour rates for the works in the Jail compounds. Only equivalent number of Man Mazdoor shall be provided in the Jail premises and no women Mazdoor are allowed inside.

C) INDUSTRIAL AREA:

20% over basic rates on labour component of works is allowed for works situated within 10km belt of Industrial area of Jeedimetla, in Malkajgiri District, Lingampally, Tandur, Ibrahimpatnam and Kothuru in Ranga Reddy District, Patancheru, Ramachandrapur in Sangareddy District, Bibinagar in Yadadri-Bhongiri District, Wadepally in Nalgonda District, Nagapally (Centenary Colony, Begumpet "X" roads), Takkalapally, Ramagundam and Godavarikhani in Peddapally District, Manchiryal, Mandamarri, Bellampalli in Manchiryal District, Sarpaka, Kothagudem, Paloncha and Manguguru in Bhadradi-Kothagudem district, Singareni Collieries area limits in Khammam and Bhadradi-Kothagudem, and Jayashankar-Bhoopalpally districts

D) AGENCY / TRIBAL AREAS:

1. 25% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located within & upto 16 KMs from any all-weather route inside Agency / Tribal.
2. 40% extra is allowed for the works located within the interior Agency / Tribal limits, i.e. for the works located beyond 16 KMs from any all-weather route inside Agency / Tribal.

NOTE:

- a) No extra percentage is permissible in respect of Forest produce such as Bamboo, Rellu grass and for all materials obtained from outside the Agency / Tribal.

- b) The extra percentage under Agency / Tribal areas allowance may be allowed on the labour component and on the labour charges in the rates for conveyance of materials.*
- c) The extra percentage on cost of materials in Agency / Tribal areas can be allowed on the labour component only, if they are manufactured in the Agency / Tribal areas itself except Forest produce.*

E) GHAT ROADS:

For Ghat Roads and other roads steeper than 1 in 20, the length of the road may be taken as 1.5 times the existing length of the road for the purpose of leads only for conveyance of materials based on the certificate for the Ghat Road given by the Superintending Engineer concerned.

Foot Note: Under compelling circumstances, the concerned Chief Engineer can adopt the equivalent length of road as 2 ½ times of actual length.

Note:

Area allowances: If more than one area allowance (such as those) for (1) Municipalities (2) Agency / Tribal areas (3) Industrial areas are applicable for a particular situation, only the maximum out of the allowable percentages is to be allowed.

2. EXCAVATION OF TRIAL TRENCHES, TRIAL PITS AND EXCAVATION IN RESTRICTED PLACES:

a). TRENCHES:

1) Trenches of not more than 2 meters in width	:	25% extra

b). TRIAL PITS:

1) Up to 2 Meters depth	:	25% extra
2) 2 Meters to 4 Meters depth	:	50% extra
3) 4 Meters to 6 Meters depth	:	75% extra
4) 6 Meters to 8 Meters depth	:	100% extra
5) 8 Meters to 9 Meters depth	:	150% extra
6) More than 9 Meters depth	:	200% extra

c) EXCAVATION IN RESTRICTED PLACES: -

1) Foundation of Buildings	:	75% extra
2) For Pipe line where the depth is less than 1.5 times the width-75% extra	:	75% extra
3) For pipe lines where the depth is 1.5 times or more than the width	:	120% extra
4) Silt removal in restricted areas such as U.T's., Culverts and Syphons.	:	120% extra
5) Excavation of field channels	:	75% extra

- 6) For narrow trenches not more than 2 meters in width and depth not less than twice the width and for excavation of road boundary drains, model sections of canals. : 75% extra
- 7) High berm cutting of not more than 150 mm average thickness and sectioning for roads : 50% extra

Note: 1) *The extra percentage is allowed over Common item for all earth works (COM-MWRK- Manual Works) for corresponding soil and Standard data items. It includes the charges for all lifts and initial lead but does not include dewatering charges if any in respect of all the items under (A) and (B) above.*

- 2) *The above extra percentages in respect of excavation in hard rock for restricted places are to be allowed for (2/3)rd of the cost and shall not to be allowed in respect of items involving blasting component which may be taken as (1/3)rd of the cost.*

3. MANUFACTURED SAND:

As per GO Ms No 37 Industries and Commerce (Mines-I) Dept., dated 29.05.2018, the Government have directed all the Engineering Works Departments to use Manufactured Sand (Rock sand) and natural river sand in the ratio of 50:50 in all the mixes of Cement concrete and in the items of works where sand is used earlier, to reduce the burden on Natural Resources and to make the sustainable ecosystem. Accordingly, the Manufactured Sand/Rock Sand shall be substituted proportionately in respective data items.

4. FLY ASH BRICKS:

As per recommendations of Board of Chief Engineers dated 11.11.2016, and MoEF & CC amended Notification No S.O 254(E), dated 25.01.2016 all Engineering Departments shall mandatorily adopt Fly ash bricks and other Fly ash based products in Buildings and other allied works proposed within 100 Km radius of fly ash generating Coal/Lignite based Thermal Power plants in Telangana.

5. PORTLAND SLAG CEMENT:

As per GO Ms No 174 I&CAD (Reforms) Dept., dated 20.03.2015 the Government have agreed for the use of Portland Slag Cement conforming to IS 455-1989 in specific works only duly ensuring proper quality of material and mixdesign. Further the Sub-Committee is recommending the monthly rates of PSC and PPC along with OPC grade of Cement. Accordingly, the cost of PSC shall be substituted in the place of OPC in respective data items wherever it is used as per necessity.

6. CONVEYANCE OF BITUMEN (BULK AND PACKED)

Packed Bitumen	---	Rs 2.25 per Km/MT
Bulk Bitumen	---	Rs 3.00 per Km/MT (Round the trip)

7. SEIGNIORAGE CHARGES

Note: The rates of the materials indicated in the **SoR** are exclusive of Seigniorage Charges.

The concerned Technical sanctioning authority should ensure that the relevant Seigniorage charges as fixed by the Government from time to time on work items shall be reconciled separately duly excluding from the data, so that, the Seigniorage charges are not affected by quoted Tender percentage.

8. G S T (Goods & Service Tax):

The GST (Goods & Service Tax) on **Works Contract** shall be implemented as per orders of the Government from time to time.

GUIDE LINES

- 1) The Schedule of Rates (**SoR**) is formulated under four Parts, which are applicable to all the Engineering Departments and other Organizations under the control of Telangana State Government.

PART -1: Irrigation& CAD (Dam and Allied Works, Canals and Allied Works, Canal C.D. Works, Tunnels and Allied Works, Preliminary and Maintenance Works, Hydraulic Gates and allied works and Leads and Lifts applicable to all Departments.

PART -2: Roads and Bridges

PART -3: Buildings including Electrical Works

PART -4: Drinking Water Supply and Public Health (Only for works done by manual means)

2) Brief description of item of work:

Brief description of the item of work to cover all important aspects of the work included in the Data. On reading the description of the item, the user should be in a position to assess the various cost components involved in the work.

3) Data for assessing quantities:

The data reflects various assessments / assumptions made in arriving at the quantities of materials, machinery, labour and other in-puts. In case of plants and equipment the output of main plant is worked out and the requirement of all other inputs and assessed to match the output of the main plant. Cycle time of operations is the criteria for assessing the output of equipment. Generally, the equipment manufacturers furnish the output of

machinery under ideal conditions of working. Suitable job and management efficiency factors are considered while working out the average output of machinery under field conditions. In case of combination of machinery and manpower, the assessment of manpower shall match the output of machinery.

Though cycle time of operations is the criteria for hourly / daily out-put of machinery work-force, the actual progress of work depends on several other factors such as power interruptions, minor break-downs, time for meals and other needs of work-force, stray rains etc. Therefore, it is the general practice to consider 50 minutes as the actual working time per hour for working out the hourly / daily out-put of machinery / work-force. CWC / BIS guide-lines stipulate the actual working hours for the purpose of equipment planning and utilisation. The daily out-put is computed duly considering the actual available working time and feedback from the field.

- For gate and hoist works, it is the general practice to specify the quantity of work in terms of number of sets of embedded parts / gates. The requirement of machinery and work-force for cutting, bending, fabrication, erection, painting etc., is assessed to commensurate with the task involved.
 - The data for gates and E.M. Parts is arrived per Metric Tonne (MT) quantity.
 - The data for Hoists and Gantry Cranes is worked out on the basis of capacity in tonnage.
4. **The lead and lift charges** provided in SoR are generally applicable and common to all Engineering Departments. Any item which is not covered in this part, the rates as provided in the data of the relevant works may be adopted in preparation of estimates.
5. **Input Basic Materials** needed for all works are listed and incorporated in the data. The requirements are analyzed and the specifications adopted shall confirm to Standards published by the BIS.
- The labour and material rates will be finalised by the Board of Chief engineers.
 - Unless otherwise specified, all material rates shall be exclusive of GST.
 - For Sand, Gravel, Murrum, Stones, Coarse Aggregates etc, the rates are ex-quarry/Stock yard, adding loading charges by machinery / manual means and idle hire charges of machinery as per table under chapter “conveyance or lead and lift charges”, as applicable.
 - For AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates are to be taken prevailing at major commercial centre near project area. The lead charges, as applicable are to be added in preparing estimates
 - For Steel and Cement, the rates are delivery at site excluding GST.
 - The specifications of the aggregates for sizes and gradation and its adoption shall be as per IS 383.

6. The Labour component in the data is mentioned for unit work.

- No allowance towards labour importation and labour amenities added extra as they are included in the recommended overheads.
- On Labour Component: Certain additional allowances are added extra to the wages of labour (i.e. only on labour component in the work item) in the form of percentage, as recommended by the Government/Board of chief engineers due to statutory and other provisions.

7) Hire Charges of Machinery: The machinery and /or group of machinery for items of works and their output has been worked out based on the availability of machinery generally in the market and working in the field successfully, duly considering cycle time, idle time, operator efficiency, type of work etc.

- The hire charge of a machinery / equipment is worked out based on the guidelines published by CWC and BIS codes.
- For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH.

8) Lead Charges

- a. The high level committee has recommended to adopt, for conveyance by head load, a minimum lead of 50 meters and additional lead up to 150 meters in the intervals of 50 meters. Beyond 150 meters' lead, only machinery rates are to be adopted.
- b. The basic work item rates provided in the Standard Data & Schedule of rates include 50 m or 1 km as initial lead and no lead charges shall be allowed where the source of material is within the initial lead specified in item rate. Additional lead charges shall be allowed for the lead exceeding initial lead specified in the item rate. The Guidelines may be followed regarding adding Lead charges as given against each chapter.
- c. For the materials where the basic rates are mentioned as "Quarry Rates" in the SoR, which includes initial lead of 1.00km. Lead charges are to be added for the lead distances from the approved quarries as applicable
- d. The lead charges per unit quantity for conveyance of the materials are worked out, and included in the schedule of rates in increment of 50 m for head load and in increment of 1 km for mechanical mode.
- e. The rates for lead charges by head load up to 150 meters and by machinery up to 5 km, shall be cumulative and inclusive of lead charges for preceding lead. For lead beyond 5 km, the lead charges shall be worked out on per km basis.

9. Loading and Unloading Charges for Materials

The following features are considered:

- a. Loading and unloading charges are not payable for conveyance by head load.

- b. Loading and unloading charges are not payable for conveyance by mechanical means, for disposal of excavated material unless specified.
- c. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone, are inclusive of stacking wherever applicable.

10. Lift Charges:

- a. The data includes initial lift charges of 3.0 meters, for materials conveyance by head load, Additional leads in the interval of 1.0 meters are worked out, as additional labour input and incorporated in the chapter on "Lead and lifts"
- b. Where the conveyance / lifting of material is done by mechanical means, lift charges shall not be considered, as the cycle time of operation of the machine includes lifts involved.
- c. The data and rates for lift charges is cumulative and are inclusive of rates for preceding lifts also.

11. Wastage of Materials

- a) **Cement:** No wastage allowance is recommended towards the quantity of cement used in works, as the wastage is already included in the input and in major works bulk quantities are used.
- b) **Steel:** The wastage of steel @ 2.5% is allowed for gates and allied structures. For RCC works the wastage is @2.5% for the reinforcement rods above 36mm dia. and @ 5% for rods below 36mm dia. including overlaps, if they are not welded. If welding is adopted for the reinforcement rods even for below 36mm dia, 2.5% of wastage is only recommended.

12. In Respect of RCC Works, the rate for cement concrete for 1 cum is worked out separately for all grades based on Indian Standards. The rate of Reinforcement steel per MT is calculated separately and to be added in the estimates of RCC works as a separate item.

13. Soil Classification: The Committee recommended to allow uniform classification of soils for all Departments and data is worked out accordingly.

- 1. All soils
- 2. Marshy soil
- 3. Ordinary rock (Not Requiring Blasting),
- 4. Hard rock
 - a. Hard Rock (Requiring Blasting)
 - b. Hard Rock (Controlled Blasting)
 - c. Removable by Chiseling (Blasting Prohibited)

14. Use of Super Plasticizers and Admixtures:

Concrete admixtures such as Air-Entraining Agent (AEA) / Water reducing agent can be used advantageously for better quality concrete. The high level committee has recommended to adopt for super plasticizers and admixtures at 0.4% on cement for concrete work as per MORTH standards for batching plants.

15. Contractors overheads, profit and other provisions:

- a) The provisions allowed in G.O.Ms.No.94, I&CAD, dated 01.07.03, need not be added separately for the items covered in the contractor overhead charges.
- b) For all Road & Bridge works Overheads & Contractors profit shall be allowed as specified in the **MoRTH** Standard Data Book.
- c) Overheads and Contractor's profit @ 13.615% shall be allowed in the data which includes labour importation and amenities etc. as mentioned below.
 - i. Site accommodation, setting up plant, access road, water supply, electricity and general site arrangements.
 - ii. Office furniture, equipment and communications
 - iii. Expenditure on:
 - a. Corporate office of contractor
 - b. Site supervision
 - c. Documentation and "as built" drawings
 - iv. Mobilisation/ De-Mobilisation of resources
 - v. Labour camps with minimum amenities and transportation to work sites.
 - vi. Light vehicles for site supervision including administrative and managerial requirements.
 - vii. Laboratory equipment and quality control including field and laboratory testing.
 - viii. Minor T & P and survey instruments and setting outworks, including verification of line, dimensions, trial pits and bore holes, where required.
 - ix. Watch and ward
 - x. Traffic management during construction
 - xi. Expenditure on safeguarding environment
 - xii. Sundries
 - xiii. Financing Expenditure

16. Role of Central Competent Agency For Schedule Of Rates (Board Of Chief Engineers)

- a) The Board of Chief Engineers under the Chairman ship of Engineer-in- Chief, (Administration) I&CAD Department is the competent authority to finalize and recommend the Schedule of Rates applicable for all Engineering Departments. The

Board has to assess and incorporate only the three basic inputs required to generate unit work item rates as below.

1. Basic rates of labour:

Wages of labour commonly required in execution of works has to be arrived and incorporated in the schedule of rates (**Basic input of Labour wages**), without adding extra towards area allowances (like municipality allowance, tribal area and ghat road allowances etc,) which shall be added to the rates where applicable in the form of separate percentage as explained in the preceding paras. The rates shall be the prevailing daily rates in the State and shall not be less than the minimum wages fixed by the Government from time to time.

2. Materials Rates:

The basic input material rates common to all departmental works are listed out and incorporated (in the chapter “Basic inputs”) The material specifications adopted shall confirm to Standards published by the BIS.

The Prevailing market rates for all basic input materials shall be obtained from the major commercial centers near the project areas. Average of the rates, ignoring freak rates, shall be reckoned as the prevailing market rate excluding all taxes viz., GST.

For sand, gravel, murrum, stones, aggregates etc., the rates are ex-quarry/stock yard including loading charges and idle hire charges. For steel, Cement, AC sheets, GI sheets, Hume pipes, wood and stone slabs, the rates prevailing at major commercial centre near project area has to be adopted.

3. Use Rate of Machinery:

The third parameter for incorporation in the Basic Inputs, is the use rate of machinery. To arrive at the use rate of machinery, the inputs to be incorporated are

- i. The list and capital cost of machinery required to be used in the construction activity, The rate has to be obtained from major manufacturers and outlet sources and the rate shall be the current market price excluding all taxes and duties i.e G.S.T etc. and including freight charges.
- ii. The prevailing fuel charges of petrol and diesel are ascertained and average rate adopted
- iii. Borrow rate of interest as fixed by the Government/competent authority be indicated.
- iv. For the other machinery not covered by the list, the R&B and other users may adopt hire charges as recommended by the MORTH

- b) The Chairman, Board of Chief Engineers(BOCEs) or competent authority appointed by the Government, based on the approved basic inputs, load the above three basic

parameters in the software program. The unit rate of all works including hire charges of all machinery will be generated automatically for adoption.

The Chairman, BOCs shall communicate the uniform Schedule of rates and Standard Data, to all users for uniform and direct adoption in all infrastructure Departments, as applicable.

Sd/- Mohd Amjad Hussain; Dt:18.06.2025
Engineer-in-Chief(Admn)
Irrigation & CAD Department and
Chairman, Board of Chief Engineers

Preamble
(SoR 2025-26)
Roads & Bridges Departments

PREAMBLE

1.0 QUOTATION ITEMS

Requests for inclusion of new items have been examined with respect to the market trends, technological changes, need for use and general practices. Certain modifications were necessitated to the existing items as per the suppliers/ manufacturer's recommendations. For those items where specific quotations from the manufacturers, suppliers or vendors are received, lowest quoted rates are considered. Annexure I contains the list of new items/ specifications proposed for inclusion in the Buildings SoR:2025-26.

2.0 OTHER GUIDELINES AND AMENDMENTS TO DATA ITEMS

- i. Specific recommendations were received from the suppliers/ manufacturers on adoption of Non-SoR rates or Catalogue rates, which are not included in the present SoRs, will continue to be treated as supplemental items during the execution of work in the following manner:
 - a. Supply of all Vitreous chinaware porcelain items such as Indian Water Closets, European WCs both wall hung and floor mounted, Wash Hand Basins, Urinals etc., Catalogue items (Non SoR items) - 15 - 25% discount on MRP.
 - b. Supply of CP Fittings such as Taps, Stopcocks etc., Catalogue items - 20% discount on MRP.
 - c. For all other supply items, which are procured as Non-SoR items, 20% discount may be operated on the MRP/ Catalogue prices obtained from the suppliers/ dealers/ manufacturers.
- ii. It is recommended to continue to allow 15% allowance on the labour charges for the works which are taken up in VVIP areas such as Hon'ble Governor's residence, Hon'ble Chief Minister's residence, Hon'ble Chief Justice residence, Hon'ble High-court, and Secretariat where VVIP presence imposes restrictions on labour mobilization, movement, working manner, including material mobilization.
- iii. The above allowances may be added in the rate-analysis of sanctioned estimates to arrive at the budget requirements/ contract values/ agreement rates.
- iv. The estimate preparing and sanctioning authorities are requested to invariably enclose (i) quarry maps showing the shortest distance from the work site to the quarry from where materials are proposed to be carted and (ii) certificates of quality, quantity, and availability of materials in the identified quarries, for all those lead items of estimate at the time of technical sanctions.

Chief Engineer (R&B)
Buildings
Roads & Buildings Department
Errum Manzil, Hyderabad

PART-I
IRRIGATION & CAD
WORKS

**BASIC DATA
FOR
IRRIGATION WORK ITEMS**

PART-1 INDEX

IRRIGATION & CAD WORKS

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**SCHEDULE OF RATES
BASIC DATA FOR
IRRIGATION WORK ITEMS
FOR THE YEAR 2025-26
STATEMENT OF RATES FOR MATERIALS**

General Guide Lines for Revising Rates of Materials

1. Average of the prevailing market rates, ignoring freak rates, shall be the criteria for fixing market rates for materials.
2. The rates for materials is exclusive of seigniorage charges wherever applicable.
3. The rates for materials, except those for which lead charges are admissible as per the statement of lead charges, shall be for applicable all leads.
4. The rates provided for useful rubble / stone chips from excavation shall be at dump yard

Sl. No.	Description of material	Unit	Scheduled Rates
1	Acetylene gas	cum	463.00
2	Asphalt 80/100 Grade	Kg	62.00
3	Binding wire	Kg	86.00
4	Burnt stone slab 10 cm thick	sqm	359.00
5(a)	Ordinary Portland Cement (43/53 GRADE) *(Note: As per rate fixed by Sub-Committee every month)	tonne	5100.00
5(b)	Portland Pozzolona cement *(Note: As per rate fixed by Sub-Committee every month)	tonne	5000.00
5(c)	Portland Slag Cement *(Note: As per rate fixed by Sub-Committee every month)	tonne	5000.00
6	Chequered plate	Kg	77.00
7	Coarse aggregate 10-4.75 mm (excluding Seigniorage charges)	cum	879.00
8	Coarse aggregate 20-10 mm (excluding Seigniorage charges)	cum	1144.00
9	Coarse aggregate 40-20 mm (excluding Seigniorage charges)	cum	1030.00
10	Coarse aggregate 80-40 mm (excluding Seigniorage charges)	cum	625.00
	<i>The aggregate rates mentioned above (from Sl.No.7 to Sl.No.10) are exclusive of Seigniorage charges but including blasting charges of Rs.100/cum and 25% machine crushing charges. However, if the metal is obtained from hand broken, the blasting and crushing charges shall be deducted. The aggregate shall be HB Stone of Granite, Dolomite, Dolerite and Trap. (Quartzite and Basalt with aggregate impact of less than 20)</i>		
11	Coir brush	Each	58.00
12	Copper sheet 16 SWG	kg	790.00
13	Coursed rubble stone 30 x 30 x 45 cm(excluding Seigniorage charges)	Each	34.00
14	Coursed rubble stone 30 x 30 x 60 cm(excluding Seigniorage charges)	Each	41.00
15	Curing Compound	Ltr	163.00
16	D - cord	Rm	11.00
17	Delay - noiseless trunk	Each	21.00
18	Detonating fuse coil	Rm	9.00

Sl. No.	Description of material	Unit	Scheduled Rates
19	Detonating shock tube / Cord relays	Rm	43.00
20	Detonator delay type	Each	22.00
21	Detonator electric	Each	14.00
22	Detonator ordinary	Each	11.00
23	Empty cement bag	Each	7.00
24	Explosive ANFO	kg	76.00
25	Explosive ANFO high strength booster	kg	89.00
26	Explosive small dia (Kelvex-220 or equivalent)	kg	95.00
27 (a)	Fine aggregate/ sand(un-screened) for Concrete & Filtering items) (excluding Seigniorage charges)	cum	723.00
27 (b)	Fineaggregate/Sand(unscreened)for filling and blindage (excluding Seigniorage charges)	cum	723.00
28	Fine aggregate /Sand (Screened) for Mortar ,Plastering items and Sand blasting items (excluding Seigniorage charges)	cum	952.00
29	Geo-textile (filter fabric) 160 gsm	sqm	48.00
30	Geo-textile (filter fabric) 200 gsm	sqm	57.00
31	Geo-textile (filter fabric) 250 gsm	sqm	68.00
32	G I Pipe 100 mm dia B Class	Rm	972.00
33	G I Pipe 15 mm dia A class	Rm	121.00
34	G I pipe 25 mm dia A class	Rm	185.00
35	G I pipe 40 mm dia B class	Rm	314.00
36	G I pipe 50 mm dia A class	Rm	354.00
37	G I Pipe 80 mm dia B Class	Rm	634.00
38	G.I Bolts / Nuts and Washers	kg	112.00
39 (a)	G.I sheet (plain)	tonne	74266.00
39 (b)	G.I sheet (Corrugated)	tonne	73954.00
40	Hariyala turfing sods	sqm	49.00
41	Hectometer stone one line dressed	Each	400.00
42	Hemp yarn	kg	97.00
43	Honne wood planks	cum	76128.00
44	Hume pipe with collar 150 mm dia	Rm	400.00
45	Hume pipe with collar 300 mm dia	Rm	686.00
46	J- Bolts 30 cm long	Each	54.00
47	Jungle wood planks	cum	33800.00
48	Khandki stone 15 to 20 cm height	Each	21.00
49	Khandki stone 20 to 25 cm height	Each	24.00
50	Khandki stone 25 to 30 cm height	Each	27.00
51	Kilometer stone one line dressed	Each	598.00
52	LDPE sheet (Geo membrane) 500 micron thick	sqm	123.00
53	LDPE sheet (Geo membrane) 750 micron thick	sqm	170.00
54	LDPE sheet (Geo membrane) 1000 micron thick	sqm	224.00
55	M S Bolts / Nuts / Washers	kg	97.00
56	Murum(including loading charges but excluding Seigniorage charges)	cum	291.00
57	Oxalic acid	Ltr	103.00

Sl. No.	Description of material	Unit	Scheduled Rates
58	Oxygen gas	cum	63.00
59	PVC sealing strip	Rm	58.00
60	PVC water stopper 310 mm wide	Rm	499.00
61	PVC pipe of 100 mm dia	Rm	198.00
62	REINFORCEMENT STEEL (HYSD/TMT)		
(a)	Category-A Steel Major Steel Manufacturers including PSUs (SAIL, VSP STEEL, TATA, JINDAL PANTHER) (Note: Rate as fixed by the Sub-committee every month)	tonne	57,000
(b)	Category-B Steel Other Steel Manufacturers (GOEL, SHYAM, JAI BALAJI, AFSTAR/MSLIFE TMT, RADHA TMT, SUGNA TMT, SHREE TMT) (Note: Rate as fixed by the Sub-committee every month)	tonne	50,000
63	Resin bond Cement capsule	Each	63.00
64	Rough stone 20 x 20 x 75 cm (Including Loading charges but excluding Seigniorage Charges)	Each	46.00
65(a)	Shahabad stone slab polished (including loading charges but excluding Seigniorage charges)	sqm	322.00
65(b)	Shahabad stone slab non polished (including loading charges but excluding Seigniorage charges)		265.00
66	Stone chips (at dump yard/Spoil)(including loading charges but excluding Seigniorage charges)	cum	260.00
67	Stone chips (at quarry)(including loading charges but excluding Seigniorage charges)	cum	619.00
68	Structural steel angle / channel / beam / bars *(Note: As per rate fixed by Sub-Committee every month)	tonne	60,000
69	Structural steel plate / flats *(Note: As per rate fixed by Sub-Committee every month)	tonne	61,000
70	Super Plasticizer (Conplast RP-264 or equivalent)	kg	73.00
71	Synthetic Enamel paint 1st quality	Ltr	260.00
72	Synthetic adhesive (Resin + Hardener)	Kg	374.00
73	Tar felt joint filler board 12 mm thick	sqm	447.00
74	Tar felt joint filler board 20 mm thick	sqm	676.00
75	Through stones 20 x 20 x 30 to 45 cm (including loading charges but excluding Seigniorage charges)	Each	32.00
76	Through stones 25 x 25 x 45 to 60 cm long (including loading charges but excluding Seigniorage charges)	Each	59.00
77	Through stones 30 x 30 x 65 to 75 cm long (including loading charges but excluding Seigniorage charges)	Each	92.00
78	Un-coursed rubble stones (at dump yard /Spoil) (including loading charges but excluding Seigniorage charges)	cum	250.00
79	Un-coursed rubble stones (at quarry)(including loading charges but excluding Seigniorage charges)	cum	473.00
80	Water proofing compound	kg	123.00
81	Welding electrodes 4 mm dia	Each	15.00

Sl. No.	Description of material	Unit	Scheduled Rates
82	Wire brush	Each	50.00
83	Wire mesh 20 gauge	sqm	270.00
84	Zinc chromate red oxide primer paint	Ltr	198.00
85	inorganic zinc silicate	Ltr	577.00
86	solvent less coal tar epoxy paint	Ltr	260.00
87	Zinc phosphate primer	Ltr	208.00
88	Allkyd based iron oxide paint	Ltr	182.00
89 (a)	a) Cost of hdpe (75mm dia) (6 kg/cm ²	Rm	218.00
89 (b)	b) light black MS casing pipe 80mm dia (4mm thick)	Rm	728.00
90	welded steel wire fabric 100X100X5 mm size	Kg	208.00
91	Protective Mastic	Ltr	515.00
92	Solventless coal tar epoxy (brown)	Ltr	260.00
93	Excavation of drain with Excavator	cum	54.00
94	Crushed stone sand/Rock sand 4.75mm to 2.36 mm as per IS 383 (1970) (excluding Seigniorage charges)	Cum	676.00
95	Fly ash conforming to IS: 3812 (Part II & I)	Cum	85.00
96	Benching old embankment slopes 0.45 X 0.45 M	RM	9.00
97	Laying of Sand Bags in the stipulated places including cost of empty cement bag, sand, thread, stitching charges and labour charges etc., with 13.615% overhead charges and contractors profit.	per bag	42.00
98	Rough stone for revetment 225mm thick (including Loading charges but excluding Seigniorage charges)	cum	260.00
99	Eradication of Weed growth from Drains, Canals by spraying Chemicals	sqm	4.00
100	Thinner	Ltr	99.00
101	Credit for excavated rock found suitable for use	Cum	255.00
102	Earth Cost or compensation for earth taken from private land (Excluding Seigniorage Charges)	Cum	82.00

*(Note: As per Monthly rate fixed by Sub-Committee) - May 2025 Month Rate

MATERIALS FOR GATES & HOISTS **FOR THE YEAR 2025-26**

GUIDE LINES

1. For cast steel / Alloy steel / Forged steel / Bronze, aluminum alloy components the rates shall be inclusive of cost of basic metal for these components, casting / forging charges, machining charges and applicable excise duty on finished alloy component.
2. For other materials the rates shall be prevailing market rates.

Sl. No.	Description of material	Unit	Scheduled Rate
1	Alloy steel (IS : 1570-carbon steel) shafts	Kg	286.00
2	Alloy steel (IS : 1570-stainless steel) pins	Kg	489.00
3	Bolt / Nut / Washer (hot dipped galvanized)	Kg	140.00
4	Bolt / Nut / Washer (stainless steel)	Kg	364.00
5(a)	Bronze (IS:305)bearings/bushes	Kg	1,108.00
5(b)	Aluminium (IS:305)bearings/bushes	Kg	426.00
6	Cast iron blocks	Kg	102.00
7	Cast steel drums / gears	Kg	281.00
8	Cast steel pinions	Kg	260.00
9	Cast steel wheels / pulleys / hubs / rollers / retainers	Kg	213.00
10	Chemical for de-greasing/ derusting/phosphate coating	Liter	177.00
11	Coal tar epoxy paint	Liter	255.00
12	Forged steel hooks / shackles	Kg	296.00
13	MS pipe 200 / 300 mm dia	Kg	198.00
14	MS pipe 32 mm dia	Rm	218.00
15	MS pipe 25 mm dia	Rm	187.00
16(a)	Rubber bottom seal (IS : 11855) 120 X 16 mm	Rm	946.00
16(b)	Rubber bottom seal (IS : 11855) 120 X 20 mm	Rm	1,071.00
17(a)	Rubber side seal (music note type Teflon claded) (IS : 11855) 36Φ 113 X 14 mm	Rm	2,579.00
17(b)	Rubber side seal (music note type Teflon claded) (IS : 11855) 50Φ 125 X 16 mm	Rm	3,999.00
18(a)	Rubber side seal (music note type uncladed) (IS : 11855) 36Φ 113 X 14 mm	Rm	2,054.00
18(b)	Rubber side seal (music note type uncladed) (IS : 11855) 50Φ 125 X 16 mm	Rm	2,985.00
19	Rubber side seal Z-type (IS : 11855)	Rm	2,699.00
20(a)	Rubber corner seal (Teflon claded) (IS : 11855) 36Φ 113 X 14 mm	Each	3,604.00
20(b)	Rubber corner seal (Teflon claded) (IS : 11855) 50Φ 125 X 16 mm	Each	4,626.00
21(a)	Rubber corner seal (un claded) (IS : 11855) 36Φ 113 X 14 mm	Each	2,954.00
21(b)	Rubber corner seal (un claded) (IS : 11855) 50Φ 125 X 16 mm	Each	3,735.00
22	Stainless steel plates / flats	Kg	341.00
23	Welding electrode 4 mm dia x 450 mm (radiographic low hydrogen)	Each	25.00
24	Welding electrode 4 mm dia x 450 mm (stainless steel)	Each	30.00
25	Wire rope 6x37 constn (IS : 2266)	Kg	306.00
26	Zinc	Kg	244.00
27	Zinc rich (zinc content : 90 %) epoxy primer	Liter	759.00

DETAILS OF CAPITAL COST OF MACHINERY / EQUIPMENT
GUIDE LINES FOR FIXING CAPITAL COST OF MACHINERY / EQUIPMENT
FOR THE YEAR 2025-26

1. The Capital cost of machinery / equipment shall be for new machinery / equipment and shall be exclusive of all taxes, duties, other levies.
2. The cost of transport vehicles / equipment shall be exclusive of cost of tyres and tubes.
3. The cost of drill rods / drill bits / air hose / water hose / road tax / insurance charges and other consumable accessories shall not be included in the capital cost.
4. In cases, where the current capital cost of machinery / equipment could not be collected through enquiries, the capital cost considered for previous year may be updated on the basis of average percentage increase / decrease in the index for machinery published in the R.B.I Bulletin.

Sl. No.	Description of material	Unit	Scheduled Rate
1	Agitator car / Transit mixer 2 cum (excluding tyres)	Each	25,94,332.00
	tyres and tubes 6 sets		1,14,712.00
2	Air compressor 5 cmm electric	Each	8,36,732.00
3	Air compressor 7 cmm diesel	Each	11,02,608.00
4	Air compressor 7 cmm electric	Each	10,88,568.00
5	Air compressor 8.5 cmm diesel	Each	12,49,508.00
6	Air compressor 8.5 cmm electric	Each	12,91,420.00
7	Air compressor 15 cmm electric	Each	16,25,416.00
8	Angle Dozer 90 hp	Each	62,46,032.00
9	Batching plant 0.5 cum with accessories	Each	14,71,236.00
10	Batching plant 2 x 1.00 cum with accessories	Each	49,21,748.00
11	Batching plant 2 x 1.50 cum with accessories	Each	63,58,560.00
12	Bending machine	Each	6,25,196.00
13	Clamp shell and hoisting ropes	Each	36,764.00
14	Concrete bucket 1.5 cum	Each	64,324.00
15	Concrete hand mixer 45/30 ltr	Each	20,176.00
16	Concrete mixer 300/200 ltr(diesel)	Each	1,83,092.00
17	Concrete mixer 300/200 ltr (electric)	Each	1,81,272.00
18	Concrete mixer 600/400 ltr(diesel)	Each	2,98,844.00
19	Concrete mixer 600/400 ltr (electric)	Each	2,92,656.00
20	Concrete paver 100 Sqm / hr	Each	27,00,984.00
21	Convey mucker (excluding tyres)	Each	44,59,676.00
	tyres and tubes 6 sets		1,08,992.00
22	Core drilling machine	Each	12,96,516.00
23	Diesel generating set 30 KVA	Each	5,90,304.00
24	Diesel generating set 50 KVA	Each	8,68,920.00
25	Diesel Loco 45 hp	Each	24,02,764.00
26	Dewatering pump 5 hp diesel	Each	41,340.00
27	Dewatering pump 5 hp electric	Each	30,628.00
28	Dewatering pump 10 hp diesel	Each	70,928.00
29	Dewatering pump 10 hp electric	Each	65,468.00
30	Dewatering pump 20 hp diesel	Each	2,26,200.00
31	Dewatering pump 20 hp electric	Each	1,27,764.00
32	Drifter	Each	12,43,580.00
33	Drilling jumbo (excluding tyres)	Each	14,89,540.00
	tyres and tubes 6 sets		1,08,732.00
34	Dumper 4.5 cum (excluding tyres)	Each	17,79,284.00
	tyres and tubes 6 sets		1,07,848.00
35	Geophysical Ele.resistivity meter	Each	5,79,384.00

Sl. No.	Description of material	Unit	Scheduled Rate
36	Grouting pump	Each	1,71,080.00
37	Guniting / sand blasting equipment	Each	3,32,904.00
38	Ice plant with accessories 30 t / day	Each	29,76,116.00
39	Jack hammer	Each	80,548.00
40	Needle vibrator 40 mm petrol	Each	18,252.00
41	Needle vibrator 40 mm electric	Each	17,056.00
42	Needle vibrator 60 mm petrol	Each	19,240.00
43	Needle vibrator 60 mm electric	Each	18,876.00
44	Planing machine 4 m stroke	Each	8,83,480.00
45	Plate shearing machine up to 12 mm	Each	5,53,488.00
46	Pneumatic placer 0.5 cum	Each	7,00,752.00
47	Pneumatic tamper	Each	1,02,232.00
48	Pug cutting machine	Each	21,320.00
49	Pusher leg	Each	60,840.00
50	Road roller diesel 10 t	Each	10,77,440.00
51	Shovel 0.50 cum 75 hp	Each	41,92,708.00
52	Shovel 0.85 cum 110 hp	Each	72,02,624.00
53	Stationery derrick crane 5 t	Each	7,37,152.00
54	Tipper 5 cum (excluding tyres)	Each	20,64,504.00
	tyres and tubes 6 sets		1,06,600.00
55	Tipping tub 1.5 cum	Each	3,03,576.00
56	Tower crane 5 tonne	Each	88,96,316.00
57	Transformer 250 KVA	Each	5,31,804.00
58	Truck 10 t (excluding tyres)	Each	18,24,680.00
	tyres and tubes 6 sets		1,08,732.00
59	Truck mounted derrick crane 5 t (excluding tyres)	Each	26,69,056.00
	tyres and tubes 6 sets		1,07,848.00
60	Upright drilling machine	Each	69,888.00
61	Ventilation fan 20 hp	Each	3,13,144.00
62	Vibratory pad foot roller 8 t	Each	33,36,840.00
63	Wagon drill	Each	7,48,488.00
64	Water tanker 8000 ltr (excluding tyres)	Each	16,74,088.00
	tyres and tubes 6 sets		1,07,848.00
65	Welding set	Each	55,120.00
66	Winch 35 hp electric	Each	4,48,448.00
67	Hydraulic Truck Crane 30T	Each	1,77,25,136.00
	tyres and tubes 6 sets		2,28,124.00
68	Hydraulic Truck Crane 16T	Each	1,14,79,156.00
	tyres and tubes 6 sets		2,37,276.00
69	Heavy Duty Airless Spray Painting Equipment	Each	5,64,824.00
70*	Tractor with 2T Roller (R&B) Hire Charges item no 11	Each	512.00

ACCESSORIES TO MACHINERY / EQUIPMENT
FOR THE YEAR 2025-26

Sl. No.	Description of material	Unit	Scheduled Rate
1	Casing shoe bit	Each	11,846.00
2	Diamond core bit BX size	Each	12,709.00
3	Diamond core bit NX size	Each	14,352.00
4	Double tube core barrel	Each	16,744.00
5	Extension drill rod with coupling sleeve	Rm	2,751.00
6	Jack hammer drill rod 1.5 m	Each	6,178.00
7	Jack hammer drill rod 2.5 m	Each	7,467.00
8	Nozzle for Guniting / sand blasting gun	Each	900.00
9	Paving Cylinder	Each	32,822.00
10	Rails 30R (30 kg / m)	tonne	62,192.00
11	Reamer shell	Each	6,448.00
12	T.C. Cross bit 50 mm dia	Each	5,928.00
13	T.C. Cross bit 75 mm dia	Each	13,083.00
14	T.C. Cross bit 100 mm dia	Each	15,080.00
15	Tyres and Tubes for truck	Set	20,020.00
16	Wire rope 16 mm dia	Rm	312.00

OTHER COSTS ON MATERIAL / MACHINERY / EQUIPMENT
FOR THE YEAR 2025-26

1. The rate provided for 'SUNDRIES' (Lump sum provision for unquantified inputs in the data rates) shall be updated on the basis of general percentage increase / decrease in the market rates or on the basis of R.B.I 'All Commodity' index.
2. The rate for structural steel fabrication shall include cost of all materials (except structural steel), machinery, labour and one coat of primer painting.
3. Demand charges and electric power charges shall be as per prevailing TSSPDCL tariff.
4. Rate of interest on capital cost shall be as approved by Government or other competent authority.

Sl No.	DESCRIPTION OF MATERIAL	UNIT	Scheduled Rate
1	Air hose 25 mm dia	Rm	203.00
2	Air hose 50 mm dia	Rm	307.00
3	Demand charges (HT-I : General-11 KVA category) on power supply	KVA / month	494.00
4	Diesel	Ltr	95.70
5	Electric power (HT-VIII Category) including tax (1.5 times of the Tariff of HT-I(A): General-11 KVA category)	Kwhr	12.00
6	Excise duty on Gates / Hoist supplies	%	0.00
7	Insurance charges on machinery	% / annum	0.00
8	Interest on capital cost	% / annum	0.09
9	Lubricants	Ltr	274.00
10	Petrol	Ltr	107.46
11	Rivets	Kg	118.00
12	Road tax on transport vehicles	Rs./annum	RTA
13	Shalimastic sealing compound	Kg	121.00
14	Shutter oil	Ltr	45.00
15	Structural steel fabrication	Kg	40.00
16	Sundries (Lump sum for un quantified inputs)	LS	29.00
17	Water hose (pressure) 20 mm dia	Rm	200.00
18	Steel wedges	LS	20.00
19	Elbows / Nipple / Plugs etc.,	LS	25.00
20	Soldering materials	LS	22.00
21	Steam circulation arrangement	LS	23.00
22	Fuel charges (gas for heating)	LS	23.00
23	Vulcanizing materials	LS	25.00
24	Gas cutting set (2 No's 15 m hose and nozzle unit)	Each	18148.00
25	Grease	Kg	312.00
26	Welding holder set (cable / holder / gloves / mask etc)	Each	10192.00
27	Use rate of ropes	LS	198.00

MATERIALS FOR GATES AND HOISTS
FOR THE YEAR 2025-26

Sl. No.	Description of material	Unit	Scheduled Rate
1	Worm reducers	Each	2,68,528.00
2	Electric motor 20 hp(Double Shaft)	Each	1,27,504.00
3	Electric motor 17.5 hp(Double Shaft)	Each	92,092.00
4	Electric motor 12.5 hp(Double Shaft)	Each	77,688.00
5	Electric motor 5 hp(Double Shaft)	Each	37,440.00
6	Electric motor 3 hp (Double Shaft)	Each	24,752.00
7	Electric motor 2 hp (Double Shaft)	Each	14,560.00
8	Floating shaft 300 mm dia	Kg	239.00
9	Manual operating system	Each	34,736.00
10	Gate position indicator	Each	2,57,920.00
11	Ele-magnetic brake	Each	40,872.00
12	Electric cable / switch / control panel etc	LS	67,496.00
13	Wire rope sockets	Each	6,136.00

LABOUR RATES

LABOUR RATES
FOR THE YEAR 2025-26

Sl. No.	Category of Worker	Scheduled Rate
I.	SKILLED CATEGORY:	
1	Bar bender	805.00
2	Black smith / Tin smith / Rivetor	675.00
3	Blaster	805.00
4	Carpenter Cl- I	805.00
5	Electrician (Licensed)	775.00
6	Fitter Cl- I	775.00
7	Floor Polisher / Tile Layer	675.00
8	Foreman	790.00
9	Gauge reader	670.00
10	Maistry / Work Inspector with Non-technical Qualification SSLC/SSC/HSC	805.00
11	Mason Cl- I / Brick layer Cl- I	680.00
12	Mechanic Cl- I	710.00
13	Operator Air compressor / DG set	710.00
14	Operator Batching plant	780.00
15	Operator Bus/Ambulance/ Lorry/ Tanker	780.00
16	Operator Concrete / Asphalt mixer	720.00
17	Operator Concrete / Asphalt paver	720.00
18	Operator Concrete pump / Placer/ ice plant	720.00
19	Operator Core drilling machine	780.00
20	Operator Crane/ Tower crane/ Cable way	780.00
21	Operator Drilling jumbo / Loco / Winch	710.00
22	Operator Grouting/ Guniting/ Shotcreting	710.00
23	Operator Jackhammer/Pneumatic tamper	710.00
24	Operator Pump / Ventilation fan	710.00
25	Operator Lathe/Drilling/Shearing machine	780.00
26	Operator Bending / Planing machine	710.00
27	Operator Road roller	785.00
28	Operator Shovel / Scraper / Dozer	785.00
29	Operator Spillway / Sluice gate	720.00
30	Operator Crusher / Conveyor / Mucker	720.00
31	Operator Tipper / Dumper / Transit mixer	780.00
32	Operator Concrete vibrator	720.00
33	Operator Vibratory plain / pad foot roller	715.00
34	Operator Wagon drill / Drifter	780.00
35	Painter Cl- I	780.00
36	Plumber / Pipe fitter	790.00
37	Sarang / Khalasi	710.00
38	Spun pipe moulder	715.00
39	Stone chiseller Cl- I / Stone cutter Cl- I	715.00
40	Struct. steel Fabricator / Marker / Erector	815.00
41	Welder / Gas Cutter	720.00
42	Welder (X-ray quality)	780.00
43	caulker	780.00
44	Bore Mechanic	780.00

Sl. No.	Category of Worker	Scheduled Rate
45	Plumber Class-I	790.00
II.	SEMI SKILLED CATEGORY:	
1	Asphalt Sprayer / Boiler attendant	650.00
2	Bhisti	650.00
3	Boatman with boat	650.00
4	Carpenter Cl- II / Erector shuttering	650.00
5	Cartman with double bullock cart	710.00
6	Cartman with single bullock cart	650.00
7	Chavali / Navagani	650.00
8	Crowbarman / Jumper man	650.00
9	Fitter Cl- II	650.00
10	Gang man / Head / Survey mazdoor	650.00
11	Gardener / Trained mali	650.00
12	Helper Air compressor / DG set	650.00
13	Helper Batching plant	650.00
14	Helper Blasting	650.00
15	Helper Bus/ Ambulance/ Lorry/ Tanker	650.00
16	Helper Bending/Shearing/Planing machine	650.00
17	Helper Carpenter	650.00
18	Helper Concrete / Asphalt mixer	650.00
19	Helper Concrete / Asphalt paver	650.00
20	Helper Core drilling machine	650.00
21	Helper Crane/ Tower crane/ Cable way	650.00
22	Helper Drilling jumbo / Loco / Winch	650.00
23	Helper Fitter / Fabrication/Electrician	650.00
24	Helper Grouting/ Guniting/ Shotcreting	650.00
25	Helper Jack hammer / Pneumatic tamper	650.00
26	Helper Laboratory / Instrumentation	650.00
27	Helper Road roller	650.00
28	Helper Shovel / Scraper / Dozer	650.00
29	Helper Crusher / Conveyor / Mucker	650.00
30	Helper Tipper / Dumper/ Transit mixer	650.00
31	Helper Vibrator	650.00
32	Helper Vibratory plain/ pad foot roller	650.00
33	Helper Wagon drill/ Drifter	650.00
34	Lineman Electric / Telephone	650.00
35	Mason Cl- II / Brick layer Cl-II	650.00
36	Mechanic Cl- II	650.00
37	Painter Cl- II	650.00
38	Patkari / Neeraganti / Sowdy	650.00
39	Stone Chiseller Cl- II	650.00
40	Stone breaker / Hammer man	650.00
41	Valve man / Canal sluice operator	650.00
42	Plumber Class-II	650.00
43	Sewer Cleaner	650.00
III.	UN-SKILLED CATEGORY:	
1	Cement / Asphalt handling mazdoor	605.00
2	Civic worker	605.00

Sl. No.	Category of Worker	Scheduled Rate
3	Man mazdoor	605.00
4	Woman mazdoor	605.00
5	Watchman	605.00
IV.	OTHER CATEGORY:	
1	Care-taker / conductor / Lift Attender	650.00
2	Cook / Mess man	650.00
3	Dhobi	650.00
4	Diploma Engineer / Surveyor	1150.00
5	Diver with headgear	780.00
6	Graduate / Laboratory Assistant	805.00
7	Graduate Engineer/ Geologist	1460.00
8	Horticulture Assistant / Photographer	710.00
9	ITI certificate holder / Tracer / Printer	815.00
10	Literate mazdoor	605.00
11	Stenographer / Computer Operator	850.00
12	Telephone / Wireless Operator	790.00
13	Typist / Job Typist	790.00
14	CAD operator with Diploma in Engineering/General degree with CAD certificate	1150.00
15	Jeep Driver	760.00
16	Data Processing Operator	1020.00
17	Laboratory Chemist with M.Sc/B.sc Chemistry having Computer Knowledge./ Laboratory Microbiologist with M.Sc / B .Sc Microbiology or B.Sc with BZC having Computer Knowledge.	1150.00

Note:-

1. The wage should not be less than the minimum wages of schedule of employment, subject to out turn.
2. 25% extra over the corresponding Labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under all Municipality limits only.

HIRE CHARGES

HIRE CHARGES OF MACHINERY **FOR THE YEAR 2025-26**

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
1	2	3	4	5	6	7
1	Agitator car / Transit mixer 2 cum	Hour	885.80	1447.50	446.20	2779.50
2	Air compressor 5 cmm (electric)	Hour	119.00	362.60	265.20	746.80
3	Air compressor 7 cmm (diesel)	Hour	265.20	1184.30	339.50	1789.00
4	Air compressor 7 cmm (electric)	Hour	154.80	483.40	265.20	903.40
5	Air compressor 8.5 cmm (diesel	Hour	300.50	1480.40	339.50	2120.40
6	Air compressor 8.5 cmm (electric)	Hour	183.60	604.30	265.20	1053.10
7	Air compressor 15 cmm (electric)	Hour	147.60	1342.80	282.90	1773.30
8	Angle Dozer 90 hp	Hour	1871.20	1012.60	373.10	3256.90
9	Batching plant 0.5 cum(6 cum/hr)	Hour	126.50	161.10	535.30	822.90
10	Batching plant 2 x 1.00 cum(15 cum/hr)	Hour	423.30	483.40	535.30	1442.00
11	Batching plant 2 x 1.50 cum(50 cum/hr)	Hour	546.80	590.80	535.30	1672.90
12	Bending machine 3000 x 12 mm	Hour	45.20	161.10	212.20	418.50
13	Clamp shell and hoisting ropes	Hour	6.60	0.00	0.00	6.60
14	Concrete bucket 1.5 cum	Hour	17.40	0.00	0.00	17.40
15	Concrete hand mixer 45 / 30 ltr	Hour	6.90	0.00	0.00	6.90
16	Concrete mixer 300 / 200 (diesel)	Hour	62.60	131.60	356.20	550.40
17	Concrete mixer 300 / 200 ltr (electric)	Hour	61.90	53.70	356.20	471.80
18	Concrete mixer 600 / 400 (diesel)	Hour	102.10	263.20	356.20	721.50
19	Concrete mixer 600 / 400 ltr (electric	Hour	100.00	107.40	356.20	563.60
20	Concrete paver 100 sqm / hr	Hour	373.40	0.00	683.90	1057.30
21	Convey mucker	Hour	914.10	373.80	285.00	1572.90
22	Core drilling machine	Hour	354.10	394.80	446.20	1195.10
23	Diesel generating set 30 KVA	Hour	73.60	1052.70	212.20	1338.50
24	Diesel generating set 50 KVA	Hour	108.40	1579.10	212.20	1899.70
25	Diesel Loco 45 hp	Hour	407.70	888.20	265.20	1561.10
26	Dewatering pump 5 hp (diesel)	Hour	9.90	131.60	177.20	318.70
27	Dewatering pump 5 hp (electric)	Hour	3.50	53.70	132.90	190.10
28	Dewatering pump 10 hp (diesel)	Hour	17.10	263.20	177.20	457.50
29	Dewatering pump 10 hp (electric	Hour	7.40	107.40	132.90	247.70
30	Dewatering pump 20 hp (diesel)	Hour	54.40	526.40	177.20	758.00
31	Dewatering pump 20 hp (electric	Hour	14.40	214.80	132.90	362.10
32	Drifter	Hour	353.60	0.00	557.70	911.30
33	Drilling jumbo	Hour	413.10	71.10	282.90	767.10
34	Dumper 4.5 cum	Hour	688.40	663.20	356.90	1708.50
35	Geophysical Electric resistivity meter	Hour	115.60	0.00	0.00	115.60
36	Grouting pump	Hour	38.90	53.70	424.30	516.90
37	Guniting / sand blast equipment	Hour	125.90	0.00	353.60	479.50
38	Ice plant & accessories 30 t/day	Hour	198.70	1530.80	213.70	1943.20
39	Jack hammer	Hour	22.90	0.00	530.40	553.30
40	Needle vibrator 40 mm (petrol)	Hour	6.80	29.60	256.40	292.80

Sl. No	Description of machinery	Unit	Hire charge in Rs	Fuel charge in Rs	Crew Charge in Rs.	Total in Rs
41	Needle vibrator 40 mm (electric)	Hour	6.30	10.70	256.40	273.40
42	Needle vibrator 60 mm (petrol)	Hour	7.10	44.30	256.40	307.80
43	Needle vibrator 60 mm (electric)	Hour	7.00	16.10	256.40	279.50
44	Planing machine 4 m stroke	Hour	122.10	161.10	339.50	622.70
45	Plate shearing machine upto 12 mm	Hour	50.20	214.80	223.10	488.10
46	Pneumatic placer 0.5 cum	Hour	198.80	0.00	140.40	339.20
47	Pneumatic tamper	Hour	23.30	0.00	424.30	447.60
48	Pug cutting machine	Hour	8.10	5.40	0.00	13.50
49	Pusher leg	Hour	13.80	0.00	0.00	13.80
50	Road roller diesel 10 t	Hour	235.40	1184.30	358.20	1777.90
51	Shovel 0.50 cum 75 hp	Hour	1063.90	789.50	373.10	2226.50
52	Shovel 0.85 cum 110 hp	Hour	1827.70	1447.50	373.10	3648.30
53	Stationery derrick crane	Hour	89.60	0.00	0.00	89.60
54	Tipper 5 cum	Hour	540.80	497.40	278.90	1317.10
55	Tipping tub 1.5 cum	Hour	77.80	0.00	0.00	77.80
56	Tower crane 5 tonne	Hour	938.60	279.30	297.40	1515.30
57	Transformer 250 KVA	Hour	5598.70	0.00	0.00	5598.70
58	Truck 10 t	Hour	493.20	497.40	278.90	1269.50
59	Truck mounted derrick crane 5 t	Hour	667.50	497.40	278.90	1443.80
60	Upright drilling machine/Grinder	Hour	26.60	53.70	304.20	384.50
61	Ventilation fan 20 hp	Hour	12.80	214.80	45.80	273.40
62	Vibratory pad foot roller 8 t	Hour	1462.00	1710.60	425.90	3598.50
63	Wagon drill	Hour	204.40	0.00	446.20	650.60
64	Water tanker 8000 ltr	Hour	461.10	497.40	278.90	1237.40
65	Welding set	Hour	17.20	128.90	0.00	146.10
66	Winch 35 hp (electric)	Hour	147.10	263.20	424.30	834.60
67 *	Tractor with 2T roller	Hour	512.00	0.00	0.00	512.00
68	Hydraulic Truck Crane 30T	Hour	3555.10	118.80	843.60	4517.50
69	Hydraulic Truck Crane 16T	Hour	2396.70	75.00	843.60	3315.30
70	Heavy Duty Airless Spray Painting Equipment	Hour	136.80	0.00	0.00	136.80

*Part-II -R&B Hire Charges Item No.11 Data

CONVEYANCE CHARGES OF MATERIAL

LEAD/LIFT/LOADING & UNLOADING CHARGES **FOR THE YEAR 2025-26**

LEAD, LIFT, LOADING AND UNLOADING CHARGES FOR MATERIALS

1. For total lead up to 150 m (including initial lead) lead charges by head load only shall be adopted irrespective of mode of conveyance.
2. For total lead exceeding 150 m conveyance by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The rates for loading at quarry including idle hire charges of trucks and hire charges per for each kilometre and up to 5 km are cumulative and inclusive of total charges for preceding lead.
4. Unless otherwise specified lead charges for Earth / Sand / Gravel / Aggregates and Stones are for loose volume and not for compacted or in-situ volume.
5. The rates for lift charges, lead charges, hire charges are cumulative and inclusive of rates for preceding lift, lead and hire charges
6. Lift charges are not payable where conveyance of materials is by mechanical means to final placing point.
7. Loading and unloading charges are not payable for conveyance by head load.
8. Loading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 50 m wherever specified.
9. Loading and unloading charges are not payable for conveyance by mechanical means for disposal of excavated materials beyond initial lead of 1 km wherever specified.
10. The rates for unloading of materials except earth, sand, gravel, coarse aggregate, rubble, size stone and cut stone are inclusive of stacking.
11. Hire charges are per 1KM for tippers and trucks for transport of materials from work site to dump yard and other places are cumulative& includes previous km up to 5 kms.
12. The lead & lift charges are inclusive of contractor's profit and overhead charges of 13.615%
13. ***During the BoCE meeting held on 26.05.2016, it is observed that the in some of the estimates, Lead charges are being added directly to the material basic rates for arriving the finished item rate. In view of that, the BoCE has instructed to see that while arriving the finished item rate the lead charges are to be added to the material basic rates only after deducting the provision of Contractor's Profit and Overhead charges.***

COM-LDLFT-1

A. (Lead) Conveyance Charges for materials by head load

Sl No.	Total distance (Total lead includes initial lead)	Earth / Sand /Gravel / Murrum/ Lime/ Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs/Cum	Cement / Reinforcement steel / Structural steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab/ Late-rite / Wood Rs / cum
1	2	3	4	5
1	Total lead upto 50 m (covered by item rate)	initial lead	initial lead	initial lead
2	Total lead upto 100 m	98.20	57.30	125.00
3	Total lead upto 150 m	196.40	114.60	250.00

Notes:

1. No loading or unloading charges are admissible for conveyance by head load.
2. For total lead exceeding 150 m conveyance charges by mechanical means only shall be adopted irrespective of mode of conveyance.
3. The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-2

B. (Lead) Conveyance charges for machinery per kilometer for transporting materials by tippers and trucks excluding loading, unloading and idle hire charges of machinery.

Sl No.	Distance	(Lead) charges for trucks and tippers for Earth / Sand / Gravel / Murrum/ Lime/ Surki/ per cu.meter	(Lead) charges for trucks and tippers for Rubble/Size stones/ Cut Stones/ Coarse aggregate per cu.meter	(Lead) charges for trucks and tippers for Cement/ Steel/ RCC poles/ AC & GI sheets/ Packed materials/ tonne	(Lead) charges for trucks and tippers per cu.meter for PCC slabs/ Shahabad slabs/ CC & Laterite blocks/ Wood/ cum	(Lead) charges for trucks and tippers per cu.meter for water/ 1000 litres	(Lead) charges for trucks per 1000 Nos. of Bricks
1	2	3	4	5	6	7	8
1	Lead upto 1 km	44.90	43.30	27.00	63.60	26.40	72.10
2	Lead upto 2 km	62.90	60.60	37.90	89.10	36.90	101.00
3	Lead upto 3 km	83.80	83.80	52.00	123.20	49.20	134.60
4	Lead upto 4 km	101.80	101.80	63.60	149.60	59.80	163.50
5	Lead upto 5 km	119.70	119.70	74.80	176.10	70.30	192.30
6	for Every km beyond 5 km upto 30 km	18.00	18.00	11.20	26.40	10.50	28.80
7	for Every km beyond 30 km	15.00	15.00	9.40	22.00	8.80	24.00

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-3

C. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (idle hire charges of trucks are not added)

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	32.60	65.20	107.50	128.90	89.60
2	Unloading	16.30	32.60	107.50	128.90	89.60

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-4**D. LOADING AND UNLOADING CHARGES BY MANUAL MEANS (including idle hire charges of trucks)**

Sl No.	Description of item	Earth / Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum	cement in Rs/tonne	steel in Rs./tonne	brick work Rs/1000 No
1	2	3	4	5	6	7
1	Loading	163.70	196.30	251.80	273.10	327.60
2	Unloading	59.80	98.15	251.80	273.10	327.60

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-5**E. LOADING AND UNLOADING CHARGES BY MECHANICAL MEANS (including idle hire charges of trucks)**

Sl No.	Description of item	Sand /Gravel Murrum/ / Surki/ Rs / cum	Rubble/ size stone/ cut stone/ Coarse aggregate,Lime in Rs/cum
1	2	3	4
1	Loading	73.80	138.90
2	Unloading	22.60	22.60

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

COM-LDLFT-6**F. LIFT CHARGES FOR MATERIALS BY HEAD LOAD**

Sl No.	Total lift (Total lift includes initial lift)	Earth / Sand /Gravel Murrum/ Lime / Surki/ Size stone / Cut stone Rubble / Coarse aggregate Rs / cum	Cement / Reinforcement steel /Structural steel Rs / tonne	PCC slab/ Shahbad slab / CC block/ BS slab / Laterite / Wood Rs / cum
1	2	3	4	5
1	Total lift upto 3 m (covered by item rate)	Initial lift	Initial lift	Initial lift
2	For Every 1.00 Lift beyond initial lift of 3 meters	11.50	8.30	15.30

Note: The Lead Charges are inclusive of 13.615% Contractor Profit and Overhead charges

Sd/- Mohd Amjad Hussain (Dt:18.06.2025)
 Engineer-in-Chief(Admn)
 Irrigation & CAD Department and
 Chairman, Board of Chief Engineers

PART-II
ROADS & BRIDGES WORKS

PART-II INDEX

Roads & Bridge Works

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LABOUR RATES

Sl. No	S.S. Item No.	Description	Unit (Per)	Scheduled Rate	Remarks
1	2	3	4	5	6
(A) SKILLED WORKMEN					
		First Class			
1	a	stone cutter	Day	715	As per I&CAD (S.No.39)
2	b	Mason Cl-I/Brick Layer	Day	680	As per I&CAD (S.No.11)
3	c	Carpenter	Day	805	As per I&CAD (S.No.4)
4	d	Painter	Day	780	As per I&CAD (S.No.35)
5	e	Plumber	Day	790	As per I&CAD (S.No.36)
6	f	Welder	Day	720	As per I&CAD (S.No.41)
7	g	Fitter	Day	775	As per I&CAD (S.No.6)
8	h	Electrician	Day	775	As per I&CAD (S.No.5)
9	1	Cook	Day	650	As per I&CAD (S.No.2) Other Category
10	2	Mechanic	Day	710	As per I&CAD (S.No.12)
12	6	Blaster(licensed)	Day	805	As per I&CAD (S.No.3)
13	3	Barbender	Day	805	As per I&CAD (S.No.1)
14	7	Tipper and Heavy Vehicle Driver above 12T	Day	780	As per I&CAD (S.No.15)
15		Road Roller Driver (7.5 T to 12 T)	Day	785	As per I&CAD (S.No.27)
		<u>Operator</u>			
16		Concrete Mixer	Day	720	As per I&CAD (S.No.16)
17		Vibrator	Day	720	As per I&CAD (S.No.32)
18		Jack Hammer	Day	710	As per I&CAD (S.No.23)
19		Driller	Day	780	As per I&CAD (S.No.34)
20	11	Pump operator	Day	710	As per I&CAD (S.No.24)
21	13	Wireless Operator	Day	790	As per I&CAD (S.No.12) Other Category
22	15	Jeep Driver	Day	760	As per I&CAD (S.No.15) Other Category
23	16	Work Inspector with I.T.I qualification	Day	815	As per I&CAD (S.No.9) Other Category
24	17	Work Inspector with LCE, LME, L.E.E qualification	Day	1150	As per I&CAD (S.No.4) Other Category
25	18	Work Inspector with B.E (Civil Mechanical and Electrical qualification	Day	1460	As per I&CAD (S.No.7) Other Category
26	19	Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	805	As per I&CAD (S.No.10)
27	27 a(i)	Typist/Job Typist	Day	790	As per I&CAD (S.No.13) Other Category
28	a (ii)	Computer operator	Day	850	As per I&CAD (S.No.11) Other Category

Sl. No	S.S. Item No.	Description	Unit (Per)	Scheduled Rate	Remarks
29	b	"CAD Operator with Diploma in Engineering /General degree with CAD certificate"	Day	1150	As per I&CAD (S.No.14) Other Category
(B) SEMI -SKILLED WORKMEN					
		SECOND CLASS			
30	1	Mason/MATE	Day	650	As per I&CAD (S.No.35) Semi-Skilled
31	b	Brick Layer and Stone Cutter	Day	650	As per I&CAD (S.No.35) Semi-Skilled
32	c	Carpenter	Day	650	As per I&CAD (S.No.4) Semi-Skilled
33	d	Painter	Day	650	As per I&CAD (S.No.37) Semi-Skilled
34	10	Telephone Operator	Day	790	As per I&CAD (S.No.12) Other Category
35	13	Hammer Man	Day	650	As per I&CAD (S.No.40) Semi-skilled
36	1	Head Mazdoor (Mukaddar)	Day	650	As per I&CAD (S.No.10) Semi Skilled
(C) UNSKILLED WORKMEN					
37	2	Man Mazdoor	Day	605	As per I&CAD (S.No.3) Un-Skilled
38	3	Watch Man	Day	605	As per I&CAD (S.No.5) Un-Skilled
39	5	Woman Mazdoor	Day	605	As per I&CAD (S.No.4) Un-Skilled
Note : Whenever unskilled workmen are engaged for cleaning of Sewers & Septic Tanks, they may be paid double of the above wages.					
(D) OTHER CONVEYANCE ITEMS					
40	1	Single bullock with driver and cart	Day	650	As per I&CAD (S.No.6) Semi Skilled
41	3	Bullock pair with driver and cart	Day	710	As per I&CAD (S.No.5) Semi Skilled
42	6	Nava with crew	Day	650	As per I&CAD (S.No.3) Semi Skilled

Note:

1. The wage should not be less than the minimum wages of schedule of employment, subject to out turn.
2. 25% extra over the corresponding labour rates in respect of the work to be done during night time subject to issue of certificate accordingly by the concerned estimate sanctioning authority for providing in the data and by concerned Executive Engineer in charge of the work for payment. The night time allowance is applicable only to the works done under Greater Hyderabad Municipal Corporation and Greater Warangal Municipal Corporation limits only.

MATERIAL RATES

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
1	2	3	4	5	6
		(A) STONE AND ROAD MATERIALS			
		ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING, BURNING, SPLITTING			
1	22.a	For R.R Masonry Work (other than Granite, Dolomite and Trap	1 cum	168	
2	b.i	For SS Revetment work 225 mm	1 cum	168	
3	b.ii	For SS Revetment work 300 mm	1 cum	173	
4	b.iii	For SS Revetment work 450 mm	1 cum	143	
5	C	Jeddy Stone above 450 mm to 600 mm	1 cum	198	
6	d i.	Laterite for revetment 225 mm	1 cum	124	
7	d II.	Laterite for revetment 300 mm	1 cum	145	
8	d.iii	Granite for revetment 225 mm	1 cum	162	
9	d.iv	Granite for revetment 300 mm	1 cum	164	
		Note:- Only when other than granite is not available			
10	E	Laterite for masonry	1 cum	143	
11	F	Cyclopean stones above 0.2 cum	1 cum	267	
12	G	For R.R.Masonry works (granite, dolomite and trap variety) including loading & unloading	1 cum	265	
13		NOTE:- For items 22(a) to 22© ,22d.iii,22d.iv 22(f) and 22(g) add extra per cum, wherever quarrying is done by blasting	1 cum	100	
		COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING FOR SS FIRST SORT WORKS			
14	23.a	Granite, dolomite and trap	1 cum	276	
15	b	For other varieties	1 cum	198	
16	27	Granite stone slabs for culverts, lintels and copings (3 faces dressed coarsed rubble masonry)	1 cum	1819	
17		NOTE: - For items 23(a), 23(b) and 27 add extra Rs. Per Cum, wherever quarrying is done by blasting	1 cum	100	
18	28	Bond stones (600 x 200 x 200 mm)	each	32	
19	b	Chainage stones and Centre line stones (750x150x150xmm)	each	39	
	29(a)	Kilometers stones (1100 x 370 x 250 mm)	each	Based on detailed analysis as per MoRTH Data	
	b	5th Kilometers stones (1520 x 520 x 250 mm)	each		
	30(a)	Hectometers stones (900 x 200 x 200 mm)	each		
20	31	Demarcation Stones (900 x 150 x 150 mm)	each	74	
21	32.a	Guard Stones (1200 x 200 x 200 mm)	each	107	
22	b	Guide Stones (800 x 150 x 150 mm)	each	74	
23	c	Carving letters and figures in stone up to 100 mm size	each	9	
24	d	Carving letters and figures in stone above 100 mm size	each	10	

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
		HARD BROKEN STONE OF GRANITE, TRAP AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING .			
25	33.a	- do - 6mm size (IS383,1970)	1 cum	920	
26	b	- do - 10mm size (IS383,1970)	1 cum	957	
27	c	- do - 12mm size (IS383,1970)	1 cum	1070	
28	d	- do - 20mm size (IS383,1970)	1 cum	1220	
29	e	- do - 25mm size (IS383,1970)	1 cum	1098	
30	f	- do - 40mm size (IS383,1970)	1 cum	909	
31	g	- do - 50mm size (IS383,19705)	1 cum	655	
32	h	- do - 60mm size (IS383,1970)	1 cum	544	
33	i	- do - 65mm size (IS383,1970)	1 cum	493	
34	j	- do - 75mm size (IS383,1970)	1 cum	443	
35	k	- do - 75 to 100mm size (IS383,1970)	1 cum	443	
36		NOTE:- The above items from 33 a to 33 f the rates are inclusive of Rs.100/- blasting Charges and 25% Machine crushing charges. Items from 33g to 33k are including of only blasting charges			
37					
38		(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.		11	
39		(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.		19	
		SOFT BROKEN STONE SCREENED AND FREE FROM DUST			
40	33.l	- do - 40 mm size (IS383,1970)	1 Cum	130	
41	33.m	- do - 50 mm size (IS383,1970)	1 Cum	116	
42	33.n	- do - 60 mm size (IS383,1970)	1 Cum	92	
43	33.o	- do - 65 mm size (IS383,1970)	1 Cum	82	
44	33.p	- do - 75 mm size (IS383,1970)	1 Cum	76	
		HARD BROKEN STONE OF GRANITE TRAP DOLERITE AND DOLAMITE FREE FROM DUST OBTAINED BY QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING (QUARTZITE AND BASALT WITH AGGREGATE IMPACT OF LESS THAN 20)			
45	33a	-do- 2.36 mm to 5 mm size (IRC, MORTH & MORD)	1 cum	900	
	b	-do- 5 mm to 7 mm size (IRC, MORTH & MORD)	1 cum	912	
46	c	-do- 9.5 mm to 11.2 mm size (IRC, MORTH & MORD)	1 cum	957	
47	d	-do- 12mm to 14 mm size (IRC, MORTH & MORD)	1 cum	1070	
48	e	-do- 19 mm to 22 mm size (IRC,MORTH	1 cum	1220	

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
		& MORD)			
49	f	-do- 25 mm to 27mm size (IRC,MORTH &MORD)	1 cum	1098	
50	g	-do- 40mm to 45mm size (IRC , MORTH &MORD)	1 cum	909	
51	h	-do- 50mm to 55mm size (IRC,MORTH & MORD)	1 cum	655	
52	i	-do- 60 mm to 63 mm size (IRC, MORTH &MORD)	1 cum	544	
53	j	-do- 65 mm size (IRC ,MORTH &MORD)	1 cum	493	
54	k	-do- 75 mm size (IRC,MORTH &MORD)	1 cum	443	
55	1	NOTE:- The above items from 33 a to 33 g the rates are inclusive of Rs.100/- blasting Charges and 25% Machine crushing charges. Items from 33h to 33k are including of only blasting charges	1 cum		
56	2		1 cum		
57	3	(3) Deduct Rs. /- per cum if the metal or rubble is obtained from surface stone and boulders.	1 cum	11	
58	4	(4) Add Rs. /- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. /- per Cum is allowed deduction of Rs. /- per Cum mentioned under Note (3) above should invariably be made.	1 cum	19	
		HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST			
59	33.q	- do - 10 mm size (IS383,1970)	1 Cum	407	
60		- do- 9.5mm to 11.2mm size (IRC,MORTH & MORD)	1 Cum	407	
61	r	- do - 12 mm size (IS383,1970)	1 Cum	381	
62		-do- 12mm to 14mm size (IRC, MORTH & MORD)	1 Cum	381	
63	s	- do - 20 mm size (IS383,1970)	1 Cum	308	
64		-do- 19 mm to 22 mm size (IRC,MORTH & MORD)	1 Cum	308	
65	t	- do - 25 mm size (IS383,1970)	1 Cum	302	
66	u	- do - 40 mm size (IS383,1970)	1 Cum	179	
67		-do- 40 mm to 45 mm size (IRC , MORTH & MORD)	1 Cum	179	
68	v	- do - 50 mm size (IS383,1970)	1 Cum	158	
69		-do- 50 mm to 55 mm size (IRC, MORTH &MORD)	1 Cum	158	
70	33.w	- do - 65 mm size (IS383,1970)	1 Cum	150	
71		-do- 60 mm to 65 mm size (IRC, MORTH &MORD)	1 Cum	150	
72	x	- do - 75 mm size (IS383,1970)	1 Cum	123	
73		- do - 75 mm size (IRC ,MORTH & MORD)	1 Cum	123	
74	y	- do - 75 to 100 mm size (IS383,1970)	1 Cum	96	

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
75		- do - 75 to 100 mm (IRC, MORTH & MORD)	1 Cum	96	
		OTHER ITEMS			
76	33.z1	Laterite 40 to 75 mm (ring)	1 Cum	106	
77	z2	kankar, hard broken kankar 40to75mm (ring)	1 Cum	79	
78	z3	Soling stone of 150 mm size of granite, trap and Dolomite varieties.	1 Cum	100	
79		NOTE:- (1) Add extra for items to 33(z3) Rs /- Per cum, wherever quarrying is done by blasting. (2) Wherever controlled blasting is resorted the Chief Engineer concerned shall approve the observed data in support of SS item No. 22 a to 22 c , 22g, 23	1 Cum	100	
80	z4	Soling stone of 150 mm size other than granite variety	1 Cum	70	
81	z5	Soling Stone laterite, Kankar 150mm, surface stone	1 Cum	43	
82	z6	Field picked metal unbroken 20 mm size	1 Cum	58	
83	z7	- do - 25 mm size	1 Cum	44	
84	z8	- do - 40 mm size	1 Cum	51	
85	z9	- do - 50 mm size	1 Cum	44	
86	z10	- do - 60 mm size	1 Cum	38	
87	z11	- do - 80 mm size	1 Cum	33	
88		NOTE:- Add Rs. /- Per Cum for selection of stone and boulders from excavated spoil dumps for items 33 (Q) TO 33 Z , when this addition of Rs. /- Per cum is allowed deduction of Rs. /- per cum should invariably be made towards the metal or rubble if it is obtained from surface stone and boulders.			
89	34	Gravel	1 Cum	109	
90	35 a	Quarry rubbish	1 Cum	85	
91	b	HBB Stone Chips 2.36mm and below	1 Cum	777	
		NOTE: Add 25% extra per cum for item 91(b) if the metal is obtained by machine crushing			
92	36.a	Sand for mortar, ceiling coat including washing screening etc.,	1 Cum	952	As per I & CAD Rate Sl.no 28 (b)
93	36.b	Sand for Concrete	1 Cum	723	As per I & CAD Rate Sl.no 27
94	36.c	Sand for filling and blindage	1 Cum	723	As per I & CAD Rate Sl.no 28
95	37	Clay for puddle and masonry Items 38 (a) to 39 (h) As per local prevailing rates based on competitive quotations.	1 Cum		
		(C) LIME AND CEMENT			
96	40 to 41(c)	LIME	Metric Tonne		
97	42	Cement	Metric		

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
			Tonne		
	NOTE: (1) The rate is material at site (No conveyance charges to be allowed) 2)As per the rates applicable to the District. 3) Least of the (1) and (2) above may allowed 4) The price of cement will be reviewed and fixed on monthly basis as per G.O.Ms.No.94 T,R&B Dept Dt16-4-2008 and rates will be communicated separately.				
98	42.a	Labour for mixing cement mortar	1 Cum	Based on detailed analysis as per MoRTH Data	
99	b	Mixing of cement mortar by machine	1 Cum		
100	c	Grinding lime mortar or Surkhi mortar	1 Cum		
101	d	Shell lime slaked and screened	1 Cum	99	
102	e	White cement	1 Kg.	989	
		(D) MORTARS		Building SSR	
103	43 to 45	Items 43 to 45		deleted	
		(E) METAL AND IRON WORKS			
104		Mild steel rods 6mm dia.	One Metric Tonne	Monthly Rates will be communicated by Govt.	
105		Mild steel flats	One Metric Tonne		
106		Mild Steel, Structural Steel, I.e., Angles, Channels and I sections.	One Metric Tonne		
107		High Yield Strength Deformed Bars	One Metric Tonne		
108		Mild Steel Plates	One Metric Tonne		
	NOTE: (1) The rate are inclusive of sales tax. 2) As per the rates applicable to the District. 3) Least of the (1) and (2) above may allowed 4) The prices of steel will be reviewed and fixed on monthly basis as per G.O.Ms.No.94 T,R&B Dept, Dt 16-4-2008 and rates will be communicated separately.				
		III RATES OF WORKS			
		(A) CLEARING SITE			
109	1.a	Clearing heavy Jungle	1 Sqm	Based on detailed analysis as per MoRTH Data	
110	b	Clearing light Jungle	1 Sqm		
111	c	Clearing Scrub Jungle	1 Sqm		
112	d	Clearing Juliflora (Prosafis) jungle including up-rooting and removing of Juliflora stumps.	1 Sqm	4	
113	2.a.i	Cutting and removing Palmyrah trees including stacking of girth 30 to 100 cm.	Each	20	
114	ii	- do - 100 to 200 cm.	Each	47	

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
115	2.b.i	Uprooting and removing Palmyrah stumps including stacking of girth 30 to 100 cm.	Each	49	
116	ii	- do - 100 to 200 cm.	Each	51	
117	2.c.i	Cutting and removing date trees including stacking of girth 30 to 100 cm	Each	25	
118	ii	- do - 100 to 200 cm	Each	37	
119	d.i	Uprooting and removing stumps of date trees including stacking of girth 30 to 100 cm.	Each	25	
120	ii	- do - 100 to 200 cm	Each	32	
121	e i	Cutting and removing other kind of trees including stacking of girth 30 to 100 cm	Each	32	
122	ii	- do - 100 to 200 cm	Each	49	
123	iii	- do - above 200 cm	Each	79	
124	f.i	Uprooting and removing stumps of other kind of trees including stacking of girth 30 to 100 cm.	Each	25	
125	ii	- do - 100 to 200 cm	Each	34	
126	iii	- do - above 200 cm	Each	43	
127	3.a	Uprooting and clearing prickly pear jungle	1 Sq.m	2	
128	b	- do - under 2.5 meters height including burning and burying as directed.	1 Sq.m	3.2	
129	c	- do - over 2.5 meters height including burning and burying with an initial lead of conveyance	1 Sq.m	4	
130	4.a	Removing of natchu, goobi, thooti etc., from drains, channels including clearance if not more than 1 metre depth of water with an initial lead of 10 metres and lift of 2 metres.	1 Sq.m	2	
131	b.i	Clearing alchi, tilla	1 Sq.m	4	
132	b.ii	Removal of Jammu	1 Sq.m	3.50	
133	c.i	Removal of imponea, cornea	1 Sq.m	3.80	
134	c.ii	Removal of water hyacinth up to 30 cm thick.	1 Sq.m	4	
135	c.iii	- do - more than 30 cm thick	1 Sq.m	5.30	
136	d	Removal of natchu, goobi, thooti etc., for every extra lead or lift over the initial lead or lift.	1 Sq.m	1.45	
		(B) DISMANTLING			
	5	DISMANTLING, CLEARING AWAY MATERIALS USEFUL FOR REUSE.			
137	n.(i)	Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	65	
		(C) QUARRYING AND BLASTING			
138	6	Blasting and removing hard granite measured in solid	1 cum	Based on detailed analysis as per MoRTH Data	
	7	Drilling holes in hard granite or sheet rock			
	a)	Manually (Hand)			

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
139	I)	20 mm dia meter	1 RM	131	
140	ii)	25 mm dia meter	1 RM	137	
141	iii)	36 mm dia meter	1 RM	158	
	b)	Pneumatic Compressor			
142	I)	20 mm dia meter	1 RM	147	
143	ii)	25 mm dia meter	1 RM	160	
144	iii)	36 mm dia meter	1 RM	174	
	8	Grouting the holes with neat cement slurry excluding cost of steel			
145	I)	20 mm dia meter	1 RM	93	
146	ii)	25 mm dia meter	1 RM	116	
147	iii)	36 mm dia meter	1 RM	145	
		(D) EARTH WORK			
148		NOTE:- 1. Standard Specification No.20-A requires breaking clods, ramming and sectioning of spoil bank etc.,		Based on detailed analysis as per MoRTH Data	
149		2. Standard Specification No.20-B does not require that three items of work detailed above, but does require neat banking in accordance with the standard specification.			
150		3. A separate rate for these three items of work will not be necessary where the earth work is executed under the standard specification No. 20-A.			
151 a		Allowances for Excavation and Forming Embankment:			
		(I) Top soil removal - up to 5%		Based on detailed analysis as per MoRTH Data	
		(ii)Consolidation allowance to Proctor's Density - 10%			
		(iii)Shrinkage Allowance - 2 to 2.5%			
		(iv)Wastage- 1%			
		(v)Allowance for removal of boulders- Nil			
151 b		Conveyance by Lorries not applicable to head leads			
		(vi) Clay 25%		Based on detailed analysis as per MoRTH Data	
		loamy, Red Earth, Gravel, Homogeneous soils- 18%			
		(vii) Allowance for compaction and Shrinkage- 12 to 12.5%			
		EARTH WORK EXCAVATION AND DEPOSITING ON BANK WITH AN INITIAL LEAD OF 10 METRES AND AN INITIAL LIFT OF 2 METRES IN CASE OF HEAD LEAD ONLY.			
152	8.a	Sand or loose soils wet sand not under water, silt in canals, channels and drains SS 20-A.	1 cum	Based on detailed analysis as per MoRTH Data	
153	b	- do - 20-B	1 cum		
154	9.a	Loamy and Clayey soils like black cotton soils, red earth and ordinary gravel SS 20-A.	1 cum		
155	b	- do - 20-B	1 cum		

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
156	10.b	Slushy soil and silt clearance up to 0.60 metres depth SS 20-B	1 cum		
157	11.b	Clayey Soil in wet and slushy condition SS 20-B	1 cum		
158	12.a	Hard Gravelly Soils SS 20-A	1 cum		
159	b	- do - SS 20-B	1 cum		
160	13.a	Mixture of gravel and soft disintegrated rock like shales ordinary gravel, stoney earth and earth mixed with fair sized boulders SS 20-A	1 cum		
161	b	- do - 20-B	1 cum		
162	14	Soft disintegrated rock (removable by pick axes and crow bars)	1 cum		
163	15	Stone matrix	1 cum		
164	16	Hard disintegrated rock or soft rock or conglomerate rock etc., removable by pick axes and crow bars	1 cum		
165	17	Hard disintegrated rock or soft rock or conglomerate rock and Hard lime kankar requiring partial blasting.	1 cum		
166	18.a.i	Fissured and fractured rock and boulders up to 3 cum in size requiring blasting including stacking	1 cum		
167	a.ii	- do - Stacking is not done	1 cum		
168	18.b.i	Excavation of Nandyal Slabs more than 3 cum in size requiring blasting including stacking	1 cum		
169	b.ii	- do - Stacking is not done	1 cum		
170	19.a.i	Hard rock and boulders more than 3 cum in size requiring blasting including stacking	1 cum		
171	a.ii	- do - Stacking is not done	1 cum		
	a.iii	Hard rock and boulders more than 3 cum in size wherever quarrying is done by controlled blasting.	1 cum		
	a.iv	- do - Stacking is not done	1 cum		
172	19.b	Benching, chiseling, wedging and boring in rock in foundation grade levelling.	1 cum		
		FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM NOs 8-b to 15 ABOVE)			
173	20.a.i	Extra for every additional 10 metres lead or part there of over the initial lead for the first 3 extra leads	1 cum	Based on detailed analysis as per MoRTH Data	
174	ii	-do- from 4 th extra lead to 6 th extra lead	1 cum		
175	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum		
		FOR HARD DISINTEGRATED ROCK (ITEM 16 TO 17 ABOVE)			
176	20bi	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	Based on detailed analysis as per	
177	ii	Extra for every additional 10 mtrs. Lead	1 cum		

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
		or part there of from 4 th extra lead to 6 th extra lead		MoRTH Data	
178	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum		
		FOR FISSURED AND FRACTURED HARD ROCK AND BOULDERS ETC., (ITEM 18 & 19 a ABOVE)			
179	20.c.i	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	Based on detailed analysis as per MoRTH Data	
180	ii	Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum		
181	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum		
		FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM NOs 8-b to 15 ABOVE)			
182	21.a.i	Extra for every additional 1 metre lift or part there of over the initial lift for the first 3 extra lifts	1 cum	Based on detailed analysis as per MoRTH Data	
183	ii	Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum		
184	iii	-do- from 7 th extra lift and above	1 cum		
		FOR HARD DISINTEGRATED ROCK (ITEM 16 & 17 ABOVE)			
185	21.b. i	Extra for every additional 1 metres Lift or part there of over the initial lift for first 3 extra lifts	1 cum	Based on detailed analysis as per MoRTH Data	
186	ii	Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum		
187	21.b.iii	-do- from 7 th extra lift and above	1 cum		
		FOR FISSURED AND FRACTURED, HARD ROCK AND BOULDERS ETC.,(ITEM 18 TO 19 a ABOVE).			
188	21.c.i	Extra for every additional lift of 1 metre or part there of over the initial lift for the first 3 extra lifts	1 cum	Based on detailed analysis as per MoRTH Data	
189	ii	Extra for every additional lift of 1metre or part there of over from 4th extra lift to 6 th extra lift	1 cum		
190	iii	-do- from 7 th extra lift and above	1 cum		
		Note: The lift charges mentioned in SS item Nos 21a,21 b, and 21c under (D) Earth work are applicable to delifts also.			
191	22.a	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by stone roller up to 1 tonne.	1 cum	Based on detailed analysis as per MoRTH Data	
192	b	- do - with stone roller 2 tonnes or cattle treading	1 cum		
193	b(i)	Add to relevant SS 20-A rates for new	1 cum		

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
		tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by pneumatic tampers at 90% proctor's density.			
194	c	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation of proctor's density with 8 to 10 tonne power roller including watering and conveyance of water for initial lead of 1/2 Kilometer.	1 cum		
195		Note: The element of Hire charges is Rs 51.76 per 10 cum corresponding to the hire charges of 8 to 10 Tonne power roller fixed at Rs. 2200 /- per day of 8 hours. The rate shall be increased when the element of hire charges increases for item No. 22 c above, if the roller is lent to the contractor at a rate of Rs 275/- per hour (i.e.,) Rs 2200 /- per day of 8 hours may be effected.)			
196	22.d	Extra for every additional 1/2 km lead for water over the initial lead of 1/2 Km for consolidation of banks .	1 cum		
197	23.a	Benching old embankment slopes 0.45 x 0.45 metres.	1 RM		
198	23.b	Puddle wall work	1 cum		
199	24	Turfing slopes including watering for 3 months with initial lead for conveyance of water and grass for 1 hectometer.	1 Sq.m		
200	25	Refilling with the excavated sand complying with the standard specifications for filling foundations	1 cum		
201	26.a	Refilling with the excavated soils (other than sand) complying with the standard specifications for filling foundations.	1 cum		
202	b	Trimming of slopes of embankments and depositing the soils on the top of the bank.	1 cum		
203	c	Ploughing	1 cum		
		(E) CONCRETE AND (G) STONE MASONRY			
203		SSI NOS 31a to 39 and SSI Nos. 60 to 87			
		Note:			
204		1. Add for vibrating concrete	1 cum		
205		2. Add for machine mixing of concrete.	1 cum		
206		3.Add where the power is available for operating the mixer, the rate is,	1 cum		
207	a I	White washing and colour banding for guard and guide stones including cost of materials	each		
208	b I	Screening sand and gravel	1 cum		
209	b 2	Screening chips and metal	1 cum		

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
210	c 1	Removing and refixing Hectometer or Demarcation stones	each		
		CENTERING CHARGES			
211	L 1	Centering charges for culvert slabs and other structures of 3 mts. span and above	1 cum	Based on detailed analysis as per MoRTH Data	
212	L 2	Centering charges for bed blocks and culvert slabs and other structures of less than 3 mts. span.	1 cum		
		CENTERING CHARGES FOR MINOR AND MAJOR BRIDGE WORKS			
213	L3	For mass concrete piers, abutments and steining well curbs, well caps etc.,	1 cum		
214	L 4	For RCC piers, abutments, wing wall, steining, well curbs, well caps etc.,	1 cum		
215		NOTE:- The rates under L3 and L 4 are applicable to Roads and Buildings and Irrigation structures up to 2 metres width			
216	L 5	For RCC deck slabs	1 cum		
217	L 6	For RCC beams	1 cum		
218	L 7	For RCC hand rails	1 cum		
219	L 8	For CC pavements, wearing coats, approach, slabs, guide stone, J. M. stone etc.,	1 cum		
	n	Laying and fixing RCC Hume pipes in position including lifting, aligning etc., complete with (fixing) collars for the following diametres of pipes but excluding cost of materials(NP2 Class)			
220	n 1	250 mm diameter	1 Rm	Based on detailed analysis as per MoRTH Data	
221	n 2	300 mm diameter	1 Rm		
222	n 3	450 mm diameter	1 Rm		
223	n 4	600 mm diameter	1 Rm		
224	n 5	750 mm diameter	1 Rm		
225	n 6	800 mm diameter	1 Rm		
226	n 7	1000 mm diameter	1 Rm		
227	n 8	1220 mm diameter	1 Rm		
228		Note:- For NP3 class 50% extra over the rates of NP2. Class may be allowed.			
		(S) ROAD WORK ITEMS			
		PICKING OLD METALLED SURFACE TO DEPTH OF 40 TO 100 mm SPREADING OLD METAL AND NEW METAL SECTIONING INCLUDING EDGEBUNDS AND SUBGRADE ROLLING, SPREADING METAL INCLUDING BLINDAGE OFGRAVEL WATERING WITH AN INITIAL LEAD OF 2 HECTOMETERS AND HAND ROLLER (1.5 TO 2 TONNES) ROLLING ETC., INCLUDING BARRICADING, DIVERSION OF TRAFFIC AND WETTING THE NEW CONSOLIDATION FOR A FORTNIGHT COMPLETE.		Based on detailed analysis as per MoRTH Data	

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
		(For a compact thickness)			
	1 (I)	HARD METAL			
229	a	40 mm thickness	10 sqm	Based on detailed analysis as per MoRTH Data	
230	b	50 mm thickness	10 sqm		
231	c	75 mm thickness	10 sqm		
232	d	100 mm thickness	10 sqm		
	1 (ii)	For compact thickness of soft metal			
233	a	50 mm thickness	10 sqm		
234	b	75 mm thickness	10 sqm		
235	c	100 mm thickness	10 sqm		
236	2	Picking 5 to 100 mm old metallised surface and sectioning	10 sqm		
237	3	Picking gravelled surface 25 mm deep and levelling and sectioning	10 sqm		
238	4	Picking the existing B.T. surface and removal of chips	10 sqm	Based on detailed analysis as per MoRTH Data	
239	5	Picking old metallised surface to a depth of 40 to 100 mm and spreading metal including watering with an initial lead of 2 Hectometers and rolling with power rollers watering and spreading gravel for blindage and power roller rolling including hire charges of power roller rolling including hire charges of power roller (8 to 10 T) barricading and diversion of traffic and wetting the new consolidation for a fortnight (for compacted thickness of)			
		HARD METAL			
240	5 (a)	40 mm thickness	10 sqm	Based on detailed analysis as per MoRTH Data	
241	(b)	50 mm thickness	10 sqm		
242	(c)	75 mm thickness	10 sqm		
243	(d)	100 mm thickness	10 sqm		
244	(e)	150 mm thick excluding hire charges	10 sqm		
		Spreading gravel watering with an initial lead of 2 hectometers and power roller (8 to 10 T) rolling excluding hire charges of power roller and barricading etc., (for a compact thickness of)			
245	6a	50 mm thickness	10 sqm	Based on detailed analysis as per MoRTH Data	
246	b	75 mm thickness	10 sqm		
247	c	100 mm thickness	10 sqm		
248	d	150 mm thickness	10 sqm		
249	7a	Blinding the road surface 6 mm thick with gravel or sand available at site after remaining loose stones including watering.	10 sqm		
250	b	-do- without watering	10 sqm		
251	8a	Blinding the road surface 6 mm thick with gravel or sand dug from road site including watering.	10 sqm		
252	b	-do- without watering	10 sqm		
253		Spreading gravel sand including			

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
		watering and roller rolling (for compacted thickness of)			
254	9a	-do- 6mm to 20 mm thick	1 cum	Based on detailed analysis as per MoRTH Data	
255	b	-do- from 20 to 25 mm thick	1 cum		
256	c	-do- from 25 to 40 mm thick	1 cum		
257	d	-do- from 40 to 50 mm thick	1 cum		
258	10	Picking 50 to 100 mm Old metalled surface, spreading metal and blindage watering tamping for patch repairs (labour only)	10 sqm		
259	11	Picking old metalled surface 50 to 100 mm deep spreading gravel watering and tamping (labour only)	10 sqm		
260	12	Levelling ruts and tamping gravelled roads	10 sqm		
261	13	Levelling ruts and tamping metalled roads	10 sqm		
262	14	Spreading gravel or sand including watering and rolling with hand roller irrespective of thickness in layer	10 sqm	Based on detailed analysis as per MoRTH Data	
263	15(I)	Carrying for water for WBM consolidation metal and blindage of 40 to 150 mm thickness for every one hectometer beyond initial lead of 2 hectometers beyond initial lead of 2 hectometers	10 sqm		
	(ii)	Rate towards the cost of water to be consumed for Cement Concrete Roads(including curing) under Greater Hyderabad Municipal Corporation limits only, subject to issue of certificate by the concerned Executive Engineer in charge of the work that water required for the work is to be purchased from other source.	1 sqm		
264		Gelatin(For MORTH data,for works of state & national high ways only)	Per Kg	As per Local Market rate	
265		Electric Detonators(For MORTH data,for works of state & national high ways only)	each	Based on detailed analysis as per MoRTH Data	
266		Hot applied thermoplastic compound(For MORTH data, for works of state & national high ways only)	Per Litre		
267		Reflectionising glass beads of 2 mm thick(For MORTH data, for works of state & national high ways only)	Per Kg		
268		Road marking paint confirming to IS 164(For MORTH data, for works of state & national high ways only)	Per Kg		
		BAILING OUT WATER CHARGES FOR CD & CM WORKS (WHEREVER REQUIRED)			
269	I 14	For earth work excavation for foundations below low water level	1 cum		

Sl. No	S.S. Item No	Description	Unit	Scheduled Rate	Remarks
270	l 15	For cement concrete for foundation below low water level	1cum		
271	n	Labour charges for laying filters with coarse aggregate.	1 cum		
272	o	Labour charges for laying filter with sand.	1 cum		
273		Jute Rope	Mtr	9	
274		De bonding Strips	Mtr	11	
275		Selent	Ltr	73	
276		Ply sheet 125 micron	1 Sqm	19	
277		Rural water	1 kl	81	
278		Urban water	1 kl	109	
		CEMENT CONCRETE PAVEMENT			
279		Groove Cutting of 2-4 mm for 1/3rd depth of concrete slab using concrete groove cutting machine with diamond studded saw within 24 hours of casting of CC pavement			
	a	CC Pavement up to 100mm thick	Rm	50	
	b	CC Pavement 100mm to 200mm thick	Rm	60	

HIRE CHARGES FOR MACHINERY

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		(Rupees)	
1	2	3	4	6	7
1	Dozer(D 80)	Spreading Cutting Cleaning	Per Hour	3256.90	As per I&CAD S.No.8
2	Dozer(D 50)	Spreading Cutting Cleaning	Per Hour	1934.00	
3	Mortor Grader	Clearing	Per Hour	4162.00	
		Spreading			
		GSB			
		WMM			
4	Hydraulic Excavator	soil Ordinary	Per Hour	3648.30	As per I&CAD S.No.52
		Soil Marshy			
		Soil unsuitable			
5	Front end loader	Soil loading	Per Hour	2028.00	
		Aggregate loading	Per Hour		
6	Tipper - 5.5cum	Transportation of soil, GSB,WMM, Hot mix etc	Per Hour	1317.10	As per I&CAD S.No.54
			Per tonne Km	8	
7	Vibratory roller 8 tonne	Earth/soil, GSB, WMM	Per Hour	3598.50	As per I&CAD S.No.62
8	Smooth wheeled roller 8 tonne	Soil compaction, BM Compaction	Per Hour	1777.90	As per I&CAD S.No.50
9	Water tanker 8 Kilolitre	Water transport	Per Hour	1237.40	As per I&CAD S.No.64
10	Water tanker 6 Kilolitre	Water transport	Per Hour	769.00	
11	Tractor	Pulling	Per Hour	512.00	
12	Tractor with rotavator	Scarifying	Per Hour	520.00	
13	Tractor with ripper attachment	Scarifying	Per Hour	625.00	
14	Air Compressor	General Purpose	Per Hour	746.80	As per I&CAD S.No.2
15	Wet mix plant 60 TPH	Wet mix	Per Hour	2028.00	
16	Mechanical broom Hydraulic	Surface cleaning	Per Hour	500.00	
17	Bitumen Pressure Distributor	Applying bitumen tack coat	Per Hour	1846.00	
18	Emulsion Pressure Distributor	Applying emulsion tack coat	Per Hour	1160.00	
19	Hot mix Plant -100-120 TPH capacity	DBM/BM/SDC	Per Hour	38683.00	
		/Premix			
20	Hot mix Plant - 40-60 TPH capacity	DBM/BM/SDC	Per Hour	30141	
		/Premix			
21	Paver Finisher	DBM/BM/SDC	Per Hour	3870.0	

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		(Rupees)	
	Hydrostatic with sensor control 100 TPH	/Premix			
22	Paver finisher Mechanical 100	Paving of WMM, paving of DLC	Per Hour	2771.00	
23	Hydraulic Chip Spreader	Surface dressing	Per Hour	3163.00	
	Tandem Road roller	Rolling of Asphaltic surface	Per Hour	2028.00	
24	Pneumatic Road roller	Rolling of Asphaltic surface	Per Hour	1581.00	
25	Pot-Hole repair machine	Repair of pot-holes	Per Hour	1041	
	Bitumen boiler oil fired	Bitumen Spraying	Per Hour	257	
26	GSB Plant 50 Cum	Producing GSB	Per Hour	1408	
27	Mastic Cooker	Mastic wearing coat	Per Hour	80	
28	Batching and Mixing Plant (a) 30 Cum capacity	Concrete mixing	Per Hour	1680	
	(b) 15-20 cum capacity	Concrete mixing	Per Hour	1442	As per I&CAD S.No.10
29	Transit mixer	Transportation of concrete mix	Per Hour	2779.50	As per I&CAD S.No.1
30	Concrete pump of 45 and 30 cum	Pumping of Concrete	Per Hour	989	
31	Cranes				
	(a) 80 tonnes	Lifting purpose	Per Hour	1443	
	(b) 35 tonnes			975	
	(c) 3 tonnes			433	
	(d)Crane with grab bucket 0.75 cum	Well foundation	Per Hour	2661	
	(e)Crane with grab bucket 1 cum	Well foundation	Per Hour	4352	
32	Concrete bucket 1.5cum	For Pouring concrete	Per Hour	17.4	As per I&CAD S.No.14
33	Kerb casting machine	Kerb making	Per Hour	400	
34	Concrete mixer	Concrete mixing	Per Hour	721.50	As per I&CAD S.No.18
	(a)0.28 cum				
	(b) 1.0 cum	Concrete mixing	Per Hour	800	
35	Piling rig with bantonite pump	0.75 m dia to 1.20 m dia boring attachment	Per Hour	6745	
36	Concrete paver finisher with 40 HP motor	Paving of concrete surface	Per Hour	3800	
37	Integrated stone crusher	Crushing of spalls 100 TPH	Per Hour	10733	
		Crushing of spalls 200 TPH	Per Hour	22630	
38	Pre stressing jack with pump and access	Stressing of steel wires/ stands	Per Hour	174	

Sl. No.	Description		Unit	Scheduled Rate	Remarks
	Machine	Activity		(Rupees)	
39	Generator				
	250 KVA	Generation of electric energy	per hour	2279	
	125 KVA		per hour	1626	
	100 KVA		per hour	1387	
	30 KVA		per hour	1338.50	As per I&CAD S.No.23
40	Pneumatic sinking of Plants	Pneumatic sinking of wells	Per K.m.	69	
41	Truck 5.5cum per 10 tonnes	Material transport	Per K.m.	1269.50	As per I&CAD S.No.58
42	Road marking machine	Road marking	Per Hour	136	
43	Mobile slurry seal equipment	Mixing and laying slurry seal	Per Hour	1387	
44	Plate compacter	For compacting in medians	Per Hour	59	
45	Drilling equipment	For drilling	Per Hour	1195.10	As per I&CAD S.No.22
46	Texture Curing Machine upto 9m (TCM)	Texturing of concrete surface	Per Hour	3626.00	
47	Batching and Mixing plant -120cum capacity	Concrete mixing	Per Hour	3909.00	

Note:

The above hire charges of machinery & plant includes crew, oils, conveyance of machinery to site and all other incidental charges.

Road Safety Interventions Item Rates

The reputed manufacturers of Thermo plastic road marking painters BERGER/ASIAN/KATALINE/AUTOMARK or any other equivalent brand, subject to the condition that the product and materials satisfy requirements as per MORTH section 803.4 and code of practice for road markings as per IRC 35-2015.

The reputed manufacturers for Road Safety items are M/s 3M India Ltd., M/s Avery Dennison Pvt. Ltd., & M/s ORAFOL India Private Limited etc or any other equivalent brand, subject to the condition that the product and materials satisfy requirements as per MORTH and IRC 79-2019

Sl. No.	Description of item	Unit	Scheduled Rate
1	2	3	4
1	3MM Aluminium composite material (ACM) Sheet (Having minimum 0.30mm thick Aluminium on both sides) confirming to IRC 67-2012 & MoRTH Specification No. 805 etc.	Sqm	1809
	a) For Caution/Warning sign boards of size 600mm Triangle, 600mm circle		-
	b) For facility/information sign boards of size 600mm×800mm		-
	c) For object marker of size 300mm Triangle		-
	d) For Hazard Marker of size 300mm×900mm		-
2	4MM Aluminium composite material (ACM) Sheet having 0.40mm thick Aluminium On both sides confirming to IRC 67-2012 & MoRTH Specification No. 805 etc.	Sqm	2157
	a) For Caution/Warning sign boards of size 600mm Triangle, 900mm Triangle		-
	b) For Junction boards of size 1050mm×1500mm Rectangular		-
	c) For Junction boards of size 1500mm×1200mm Rectangular		-
3	Prismatic Retro Reflective sheeting type XI confirming to IRC 67-2012 & MoRTH Specification No. 805 etc.	Sqm	6000
	a) For Caution/Warning sign boards 600mm & 900mm Triangle and 900mm dia. Circular		-
	a) Informatory sign boards 600mm×800mm		-
	b) Object marker 300mm Triangle		-
	c) Hazard marker 300mm×900mm		-
	d) Junction boards 1050mm×1500mm & 1500mm×1200mm rectangular		-
4	Thermoplastic paint confirming to IRC-35 and MoRTH Specification	Per Kg	120
5	Glass beads confirming to IRC-35 and MoRTH Specification	per Kg	125
6	AFP Sheet as per MoRTH Specification confirming to IRC-35	SqFt	760
7	Median Marker Double Sided confirming to MoRTH Specification	Each	330
8	DELINEATORS Single sided confirming to MoRTH Specification	Each	1900
9	DELINEATORS Double sided	Each	2250
10	RPM (STUDS) Conforming to MoRTH Specification	Each	210
11	RPM Drilling cost including materials, machinery & labour	Each	59.5
12	Median Marker drilling cost including materials, machinery & labour	Each	101
13	RPM fixing cost, epoxy materials etc.	Each	78
14	Median Marker fixing cost epoxy with 4nails and materials etc.	Each	167
15	Flexible Median Marker: Conforming to IRC 67 & 79, including cost of all materials, epoxy, Machinery, labour, fixing at site for finished item of work	Each	225
16	Standard Metal Delineators: Conforming to IRC 67 & 79, including cost of all materials, epoxy, Machinery, labour, fixing at site for finished item of work	Each	1105

PART-III

BUILDING WORKS

PART-III INDEX

Building Works

S.No.	Description	Page No	
		From	To
1	Civil Items	39	245
2	Plumbing Items	246	301
3	Electrical Items	302	539

CIVIL ITEMS

INDEX FOR CIVIL ITEMS OF TELANGANA BUILDINGS SoR: 2025-26					
Sl. No	SECTION	ITEM CODE	DESCRIPTION OF THE ITEM	FROM	TO
A	SECTION	BRICKS & BUILDING BLOCKS			
		(Ex-quarry price - including material VAT, loading excluding cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-A.I-01 - 02	ORDINARY CLAY BRICKS		
II	SUB-SECTION	TBSC-A.II-01 -18	FLY-ASH CEMENT/LIME SOLID BLOCKS		
III	SUB-SECTION	TBSC-A.III-01 - 04	AUTOCLAVED CONCRETE BLOCKS		
B	SECTION	NATURAL FLOORING STONES			
		(Ex-quarry price - including material VAT, loading excluding cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-B.I-01-09	LOCALLY AVAILABLE FLOORING STONES		
II	SUB-SECTION	TBSC-B.II-01-04	NATURAL FLOORING STONES - MARBLE		
III	SUB-SECTION	TBSC-B.III-01-04	NATURAL FLOORING STONES - GRANITE		
C	SECTION	WALL & FLOOR TILES			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-C.I-01 -06	NON-PORCELAIN CERAMIC FLOOR TILES		
II	SUB-SECTION	TBSC-C.II-01-32	PORCELAIN VITRIFIED FLOOR TILES		
III	SUB-SECTION	TBSC-C.III-01-04	CERAMIC WALL TILES		
IV	SUB-SECTION	TBSC-C.IV-01-17	PORCELAIN WALL TILES		
V	SUB-SECTION	TBSC-C.V-01-03	GLASS MOSAIC TILES		
VI	SUB-SECTION	TBSC-C.VI-01-04	WALL CLADDING TILES		
VII	SUB-SECTION	TBSC-C.VII-01-03	TERRAZZO FLOOR TILES (PLAIN & CHEQUERED)		
VIII	SUB-SECTION	TBSC-C.VIII-01-11	CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED)		
IX	SUB-SECTION	TBSC-C.IX-01-06	PRE-CAST CONCRETE BLOCKS FOR PAVING		
X	SUB-SECTION	TBSC-C.X-01-03	VINYL FLOORING		
D	SECTION	TIMBER & ROOFING MATERIALS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
		Note: Before proposing the Teak Wood Items, the estimating authorities shall obtain prior approval from the competent authority			
I	SUB-SECTION	TBSC-D.I-01-04	MEDIUM TEAK WOOD		
II	SUB-SECTION	TBSC-D.II-01-04	BEST TEAK WOOD		
III	SUB-SECTION	TBSC-D.III-01-06	BURMA TEAK WOOD		
IV	SUB-SECTION	TBSC-D.IV-01-02	ASSAM TEAK WOOD		
V	SUB-SECTION	TBSC-D.V-01-02	SAL/ COUNTRY WOOD		
VI	SUB-SECTION	TBSC-D.VI-01-23	ROOFING MATERIAL		
E	SECTION	STEEL MATERIALS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-E.I-01-21	MILD STEEL MATERIALS		

II	SUB-SECTION	TBSC-E.II-01-11	GALVANIZED STEEL MATERIALS		
III	SUB-SECTION	TBSC-E.III-01-03	STAINLESS STEEL MATERIALS		
F	SECTION	GLASS MATERIALS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-F.I-01-06	PLAIN GLASS PANES		
II	SUB-SECTION	TBSC-F.II-01-02	PIN HEADED GLASS PANES		
III	SUB-SECTION	TBSC-F.III-01-12	TINTED GLASS PANES		
IV	SUB-SECTION	TBSC-F.IV-01-02	FROSTED/ GROUND GLASS PANES		
V	SUB-SECTION	TBSC-F.V-01-05	TOUGHENED GLASS PANES		
VI	SUB-SECTION	TBSC-F.VI-01-03	HERMETICALLY SEALED PANES		
VII	SUB-SECTION	TBSC-F.VII-01	PERFORMANCE GLASS		
VIII	SUB-SECTION	TBSC-F.VIII-01	FIRE RATED GLASS		
G	SECTION	PAINTS & POLISHES			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-G.I-01-22	PRIMERS, FILLERS & BASES		
II	SUB-SECTION	TBSC-G.II-01-04	DISTEMPER PAINTS		
III	SUB-SECTION	TBSC-G.III-01-06	EMULSION BASED PAINTS		
IV	SUB-SECTION	TBSC-G.IV-01-02	SOLVENT BASED PAINTS		
V	SUB-SECTION	TBSC-G.V-01-02	OIL BASED ENAMEL PAINTS		
VI	SUB-SECTION	TBSC-G.VI-01-04	TEXTURE PAINTS		
VII	SUB-SECTION	TBSC-G.VII-01-04	SPECIAL PAINTS		
H	SECTION	PARTICLE BOARDS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-H.I-01-10	MELAMINE FACED PLAIN PARTICLE BOARD		
II	SUB-SECTION	TBSC-H.II-01-06	INSULATING PARTICLE BOARDS		
III	SUB-SECTION	TBSC-H.III-01-52	MEDIUM DENSITY FIBRE BOARDS		
IV	SUB-SECTION	TBSC-H.IV-01-25	CEMENT BONDED PARTICLE BOARDS		
J	SECTION	PLYWOODS, LAMINATES & VENEERS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-J.I-01-07	MOISTURE RESISTANT (MR) GRADE		
II	SUB-SECTION	TBSC-J.II-01-07	BOILING WATER RESISTANT (BWR) GRADE		
III	SUB-SECTION	TBSC-J.III-01-06	VENEERED DECORATIVE PLYWOOD		
IV	SUB-SECTION	TBSC-J.IV-01-09	LAMINATES		
V	SUB-SECTION	TBSC-J.V-01-02	COMMERCIAL VENEERS		
VI	SUB-SECTION	TBSC-J.VI-01-18	NATURAL FIBRE COMPOSITE BOARDS		
K	SECTION	CEILINGS, WALL PARTITIONS & WALL LININGS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-K.I-01-51	FALSE CEILINGs - TILES/SHEETS		
II	SUB-SECTION	TBSC-K.II-01-24	FALSE CEILINGs - SECTIONS & ACCESSORIES		
III	SUB-SECTION	TBSC-K.III-01-17	WALL LINING & PANELLING		

IV	SUB-SECTION	TBSC-K.IV-01-24	PARTITIONS		
L	SECTION	DOORS, SHUTTERS & FRAMES			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-L.I-01-19	DOOR FRAMES		
II	SUB-SECTION	TBSC-L.II-01-29	DOOR SHUTTERS WITHOUT FRAMES		
III	SUB-SECTION	TBSC-L.III-01-46	DOORS WITH SHUTTERS & FRAMES		
IV	SUB-SECTION	TBSC-L.IV-01-05	CUP-BOARD DOORS		
M	SECTION	WINDOWS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-M.I-01-42	OPENABLE WINDOWS		
II	SUB-SECTION	TBSC-M.II-01-15	SLIDING WINDOWS		
III	SUB-SECTION	TBSC-M.III-01-13	VENTILLATORS		
N	SECTION	STRUCTURAL GLAZING & CURTAIN WALLING			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-N.I-01-05	FIXED GLAZING		
II	SUB-SECTION	TBSC-N.II-01-02	STRUCTURAL GLAING		
III	SUB-SECTION	TBSC-N.III-01-01	CURTAIN WALLING		
P	SECTION	FIXTURES FOR DOORS & WINDOWS			
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)			
I	SUB-SECTION	TBSC-P.I-01-24	TOWER BOLTS		
II	SUB-SECTION	TBSC-P.II-01-22	HINGES		
III	SUB-SECTION	TBSC-P.III-01-18	DOOR HANDLES		
IV	SUB-SECTION	TBSC-P.IV-01-12	ALDROPS		
V	SUB-SECTION	TBSC-P.V-01-08	LATCHES		
VI	SUB-SECTION	TBSC-P.VI-01-04	DOOR CLOSURES		
VII	SUB-SECTION	TBSC-P.VII-01-05	FLOOR SPRINGS		
VIII	SUB-SECTION	TBSC-P.VIII-01-02	MORTICE LOCKS		
IX	SUB-SECTION	TBSC-P.IX-01-20	OTHER ACCESSORIES		
Q	SECTION	CONSTRUCTION CHEMICALS & ADMIXTURES			
		Literature for usage / application of construction / water proofing materials, epoxies etc, may be obtained from manufacturers.			
I	SUB-SECTION	TBSC-Q.I-01-07	PLASTICIZERS		
II	SUB-SECTION	TBSC-Q.II-01-12	WATER PROOFING COMPOUNDS		
III	SUB-SECTION	TBSC-Q.III-01-07	BONDING AGENTS		
IV	SUB-SECTION	TBSC-Q.IV-01-06	ANTI-CORROSIVE AGENTS		
V	SUB-SECTION	TBSC-Q.V-01-05	GROUTS		
VI	SUB-SECTION	TBSC-Q.VI-01-23	MISCELLANEOUS CHEMICALS		
VII	SUB-SECTION	TBSC-Q.VII-01-16	REPAIRING & TREATMENT WORKS		
VIII	SUB-SECTION	TBSC-Q.VIII-01-22	EXPANSION JOINTS		
R	SECTION	TBSC-R.I-01-98	MISCELLANEOUS ITEMS		
II	SUB-SECTION	TBSC-R.II-01-06	NYLON CARPETS		
III	SUB-SECTION	TBSC-R.III-01-04	ACRYLIC SOLID SURFACES		
IV	SUB-SECTION	TBSC-R.IV-01-05	GARBAGE BINS		
V	SUB-SECTION	TBSC-R.V-01-06	ANCHOR FASTENERS - WEDGE / EXPANSION / SLEEVE		

VI	SUB-SECTION	TBSC-R.VI-01-06	ANCHOR FASTENERS - CHEMICAL BONDING		
VII	SUB-SECTION	TBSC-R.VII-01-04	PASSIVE FIRE STOP SYSTEM		
S	SECTION	TBSC-S.I-01-14	MACHINERY & OTHER HIRE CHARGES		
T	SECTION	TBSC-T.I-01-55	LABOUR CHARGES		
U	SECTION	TBSC-U.I-01-15	DISMANTLING		
V	SECTION	TBSC-V.I-01-02	GYPSUM PLASTER		
W	SECTION	TBSC-W.I-01-05	PANELS		
X	SECTION	TBSC-X.I-01-06	POST-TENSIONING WORKS		
Y	SECTION	TBSC-Y.I-01-08	SPECIAL WORKS & ITEMS		
Z	SECTION	TBSC-Z.I-01-106	BARRICADING & STATE FUNCTIONS ITEMS		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
A	SECTION	BRICKS & BUILDING BLOCKS		
		(Excluding taxes, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	ORDINARY CLAY BRICKS		
1	TBSC-A.I-01	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Non-Modular or traditional size 23 x 11 x 7 cm	Each	9.00
2	TBSC-A.I-02	Common burnt clay bricks of class as per Table-1 of IS:1077-1992 Modular or traditional size 19 x 9 x 9 cm	Each	10.00
II	SUB-SECTION	FLY-ASH CEMENT/LIME SOLID BLOCKS		
3	TBSC-A.II-01	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 225 x 140 mm	Each	30.00
4	TBSC-A.II-02	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 200 x 140 mm	Each	27.00
5	TBSC-A.II-03	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 150 x 140 mm	Each	26.00
6	TBSC-A.II-04	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 290 x 112/100 x 140 mm	Each	18.00
7	TBSC-A.II-05	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 225 x 100 x 60 mm	Each	11.00
8	TBSC-A.II-06	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 145 x 225 x 140 mm	Each	20.00
9	TBSC-A.II-07	Fly ash cement/lime solid blocks with compressive strength of 75 kg/sq.cm - IS:12894-1990 - CLASS - 7.5 145 x 200 x 140 mm	Each	15.00
10	TBSC-A.II-08	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 225 x 140 mm	Each	32.00
11	TBSC-A.II-09	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 200 x 140 mm	Each	25.00
12	TBSC-A.II-10	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 150 x 140 mm	Each	26.00
13	TBSC-A.II-11	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 290 x 112/100 x 140 mm	Each	14.00
14	TBSC-A.II-12	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 225 x 100 x 60 mm	Each	9.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
15	TBSC-A.II-13	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 145 x 225 x 140 mm	Each	15.50
16	TBSC-A.II-14	Fly ash cement/ lime solid blocks with compressive strength of 50 kg/sq.cm - IS:12894-1990 - CLASS - 5 145 x 200 x 140 mm	Each	14.50
17	TBSC-A.II-15	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 200mm	Each	63.00
18	TBSC-A.II-16	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 7.5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 200mm	Each	66.00
19	TBSC-A.II-17	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 100mm	Each	31.00
20	TBSC-A.II-18	Supply of Solid concrete blocks conforming to IS : 2572 and IS: 2185 (Part 1) - 2005 with compressive strength 7.5 N/mm ² (Landing cost - including cost of conveyance, loading and unloading). Size: 400 x 200 x 100mm	Each	33.00
III	SUB-SECTION	AUTOCLAVED CONCRETE BLOCKS		
21	TBSC-A.III-01	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 100 mm	Each	61.00
22	TBSC-A.III-02	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) - 1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 150 mm	Each	90.00
23	TBSC-A.III-03	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) -1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 200 mm	Each	120.00
23	TBSC-A.III-04	Supply of Aerated (Cellular) Autoclaved Concrete Blocks conforming to IS:2185 (Part-3) -1984 and IS:6441-1972 of Compressive strength 3 N/mm ² (landing cost - including cost of conveyance, loading & unloading) 600 x 200 x 230 mm	Each	137.00
B	SECTION	NATURAL FLOORING STONES		
		(Excluding taxes, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	LOCALLY AVAILABLE FLOORING STONES		
24	TBSC-B.I-01	Shahabad /Tandur Rough Stone slabs of all sizes up to 25 mm in thickness	1 Sqm	115.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
25	TBSC-B.I-02	Shahabad / Tandur Rough Stone slabs of all sizes between 25 mm - 40 mm thickness	1 Sqm	150.00
26	TBSC-B.I-03	Polished Shahabad/ Tandur stone slabs of all sizes between 15 - 18 mm thickness	1 Sqm	270.00
27	TBSC-B.I-04	Kadapa slabs of 40 mm thick of all sizes	1 Sqm	115.00
28	TBSC-B.I-05	Kadapa slabs of 50 mm thick of all sizes	1 Sqm	133.00
29	TBSC-B.I-06	Polished black Kadapa slabs of all sizes between 15 - 18 mm thickness	1 Sqm	165.00
30	TBSC-B.I-07	Polished black Kadapa slabs of all sizes between 25 - 30 mm thickness	1 Sqm	198.00
31	TBSC-B.I-08	Polished White Bethamcherla (marble type) stone of all sizes and between 22-25 mm thickness	1 Sqm	459.00
32	TBSC-B.I-09	Polished Coloured Bethamcherla (marble type) stone of all sizes and between 22-25 mm thickness	1 Sqm	328.00
II	SUB-SECTION	NATURAL FLOORING STONES - MARBLE		
33	TBSC-B.II-01	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes from 600 mm to 900 mm	1 Sqm	791.00
34	TBSC-B.II-02	Polished Marble slabs of Dongari/ Adanga/ Marodh/ Rajgangpur etc., variety of thickness between 16 mm to 20 mm of sizes up to 600 mm	1 Sqm	639.00
35	TBSC-B.II-03	Polished Marble slabs of any variety and gang saw cut (Such as Dongari/ Adanga/ Marodh/ Rajgangpur etc) 16 mm to 20 mm (average) thick (0.610 M width of any length)	1 Sqm	1,085.00
36	TBSC-B.II-04	Polished Marble Tiles of 8 - 10 mm thickness of all sizes and varieties	1 Sqm	518.00
III	SUB-SECTION	NATURAL FLOORING STONES - GRANITE		
37	TBSC-B.III-01	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black/ premium colours	1 Sqm	3,486.00
38	TBSC-B.III-02	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black and regular colours	1 Sqm	3,030.00
39	TBSC-B.III-03	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) black	1 Sqm	2,576.00
40	TBSC-B.III-04	Granite stone tiles 8 mm thick (mirror polished of all shades)	1 Sqm	1,182.00
C	SECTION	WALL & FLOOR TILES		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	NON-PORCELAIN CERAMIC FLOOR TILES		
41	TBSC-C.I-01	Supply of Non-skid red or white full body Ceramic floor tiles of size 300 x 300 mm and thickness between 7-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	315.00
42	TBSC-C.I-02	Supply of Non-skid red or white full body Ceramic floor tiles of size 400 x 400 mm and	1 Sqm	326.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thickness between 7-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
43	TBSC-C.I-03	Supply of Non-skid red or white full body Ceramic floor tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	510.00
44	TBSC-C.I-04	Supply of Non-skid red or white full body Ceramic floor tiles of scratch free-stain free and scratch free-Nano finish of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	510.00
45	TBSC-C.I-05	Supply of red or white body pressed/ rectified Ceramic floor tiles High Glossy of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	475.00
46	TBSC-C.I-06	Supply of red or white body Ceramic floor tiles High Glossy of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	570.00
II	SUB-SECTION	PORCELAIN VITRIFIED FLOOR TILES		
47	TBSC-C.II-01	Supply of ordinary soluble salt porcelain vitrified tiles screen printed and polished of size 400 x 400 mm and thickness between 8-9 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	
48	TBSC-C.II-02	Supply of soluble salt/ stain free porcelain vitrified tiles screen printed and polished of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443.00
49	TBSC-C.II-03	Supply of Nano polished /stain free soluble salt/ stain free porcelain vitrified tiles screen printed of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	443.00
50	TBSC-C.II-04	Supply of Nano polished soluble salt/ stain free porcelain vitrified tiles screen printed of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	525.00
51	TBSC-C.II-05	Supply of Double charged / multi charged	1 Sqm	578.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		stain free full body porcelain vitrified tiles with double layer pigment of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
52	TBSC-C.II-06	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	630.00
53	TBSC-C.II-07	Supply of Double charged / multi charged stain free full body porcelain vitrified tiles with double layer pigment of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	735.00
54	TBSC-C.II-08	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 800 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	683.00
55	TBSC-C.II-09	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 900 x 900 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	840.00
56	TBSC-C.II-10	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1000 x 1000 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,050.00
57	TBSC-C.II-11	Supply of digital / polished glazed full body porcelain vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 600 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	788.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
58	TBSC-C.II-12	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 10-12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	500.00
59	TBSC-C.II-13	Supply of full body heavy duty industrial variety / tact porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 12-15 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	700.00
60	TBSC-C.II-14	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 300 x 300 / 200 x 100 mm and thickness between 18-20 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,300.00
61	TBSC-C.II-15	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 400 x 400 mm and thickness between 10 -12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600.00
62	TBSC-C.II-16	Supply of full body heavy duty industrial variety porcelain vitrified tile of size 600 x 600 mm and thickness between 10 - 12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	800.00
63	TBSC-C.II-17	Supply of Nano polished /stain free Twin white vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	550.00
64	TBSC-C.II-18	Supply of polished /stain free Full Body vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	800.00
65	TBSC-C.II-19	Supply of Double charged / multi charged stain free vitrified tiles with double layer pigment of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
66	TBSC-C.II-20	Supply of double charged Matt Full Body vitrified tiles of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	1,025.00
67	TBSC-C.II-21	Supply of digital / polished glazed vitrified tiles Glossy/Matt with any type of design	1 Sqm	600.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 600 X 600 mm and thickness between 8-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
68	TBSC-C.II-22	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1200 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,450.00
69	TBSC-C.II-23	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 1600 mm and thickness between 9-11 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,450.00
70	TBSC-C.II-24	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1800 mm and thickness between 9-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,700.00
71	TBSC-C.II-25	Supply of Nano polished /stain free Twin white vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	660.00
72	TBSC-C.II-26	Supply of polished /stain free Full Body vitrified tiles of size 600 x 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	960.00
73	TBSC-C.II-27	Supply of Double charged / multi charged stain free vitrified tiles with double layer pigment of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 sqm	900.00
74	TBSC-C.II-28	Supply of double charged Matt Full Body vitrified tiles of size 600 x 1200 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of Specific colour and finish in all shades and designs	1 Sqm	1,230.00
75	TBSC-C.II-29	Supply of digital / polished glazed vitrified	1 Sqm	720.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		tiles Glossy/Matt with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 600 X 600 mm and thickness between 8-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
76	TBSC-C.II-30	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1200 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,740.00
77	TBSC-C.II-31	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 800 x 1600 mm and thickness between 9-11 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	1,740.00
78	TBSC-C.II-32	Supply of digital / polished glazed vitrified tiles with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and of size 1200 x 1800 mm and thickness between 9-10 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	2,040.00
III	SUB-SECTION	CERAMIC WALL TILES		
79	TBSC-C.III-01	Supply of glazed red or white full body ceramic wall tiles of size 200 x 300 mm / 245 mm x 325 mm / 250 mm x 375 mm and thickness 6 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	315.00
80	TBSC-C.III-02	Supply of glazed red or white full body ceramic wall tiles of size 300 x 450 mm / 320 mm x 400 mm and thickness 6 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	420.00
81	TBSC-C.III-03	Supply of glazed red or white full body ceramic wall tiles of size 300 x 600 mm and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578.00
82	TBSC-C.III-04	Supply of red or white body ceramic wall tiles of size 250 x 375 mm and thickness 6 mm 1st quality conforming to IS:13711, IS:13712, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	450.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
IV	SUB-SECTION	PORCELAIN WALL TILES		
83	TBSC-C.IV-01	Supply of glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
84	TBSC-C.IV-02	Supply of digital / polished glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
85	TBSC-C.IV-03	Supply of digital / polished glazed full body porcelain highlighter wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
86	TBSC-C.IV-04	Supply of screen printed glazed full body porcelain wall tiles of size 300 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	750.00
87	TBSC-C.IV-05	Supply of glazed full body porcelain wall tiles of size 400 x 600 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 6-8 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
88	TBSC-C.IV-06	Supply of glazed full body porcelain wall tiles of size 600 x 800 mm with any type of design texture such as marble finish, wooden, bamboo, stone finishes etc., scratch less, stain free and thickness between 7-9 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
89	TBSC-C.IV-07	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm	1 Sqm	Deleted

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		but excluding highlighters 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs		
90	TBSC-C.IV-08	Supply of glazed full body porcelain premium plain design highlighter combination floor and wall tiles set with floor tiles of thickness 14-16 mm and wall tiles of thickness 8-10 mm but including highlighters 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
91	TBSC-C.IV-09	Providing and fixing wall dado with epoxy emulsion grout/ synthetic/ resin based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	384.00
92	TBSC-C.IV-10	Providing and fixing wall dado with cement based adhesive in specified thick and pointing with specified colour epoxy grout excluding cost of tiles	1 Sqm	198.00
93	TBSC-C.IV-11	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with epoxy emulsion grout/ synthetic / resin adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles.	1 Sqm	384.00
94	TBSC-C.IV-12	Providing and fixing flooring with full depth jointing and pointing to the Vitrified/ Ceramic Tile flooring in specified thick for tiles of any sizes with cement based adhesive in width of 3-5 mm with Nylon spacers excluding cost of tiles .	1 Sqm	195.00
95	TBSC-C.IV-13	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with epoxy emulsion grout/ synthetic / resin based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	764.00
96	TBSC-C.IV-14	Providing and fixing flooring with full depth jointing and pointing to the Marble/ Granite flooring for any sizes with cement based adhesive in width of 3-5 mm excluding cost of tiles.	1 Sqm	387.00
97		Providing and fixing of 16mm thick CLAYTON Extruded Hollow Clay / Terracotta Ventilated Rainscreen Facade Tiles of grid dimensions 300 X 600mm (c/c) in horizontal direction on the building facade. The extruded hollow clay tile cladding material shall be rigid and adequate strength and shall have a minimum total thickness of 16mm (±10%). The tiles shall be installed using the ventilated rainscreen principle, with provision for natural ventilation of space between the facade tiles and the structural wall. The clay tiles shall be of the hallow type		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		fixed to supporting aluminium framework (Alloy 6063 T6) consisting of vertical 'T'/'L' / Tube sections measuring 80x60x2mm / 40x80x2-3mm / 40x40x2mm respectively, spaced at maximum of 600mm c/c intervals matching to the tile vertical grid, end horizontal aluminium 'C'-clamps as per Clayton design and specifications, fixed on top of the vertical sections at maximum 300mm c/c vertically matching to the tile horizontal grid. The vertical 'T'/'L' / Tube sections shall be fixed to the MS framework/ Brickwork/ Concrete using HDG steel L-brackets (Galvanised thickness minimum 80 microns) AISI 304 stainless steel fasteners as applicable, spacing to be based on a structural static calculation. The brackets shall be fixed to the vertical aluminium 'T'/'L' / Tube profiles using two AISI 304 stainless steel nut & bolts M8 x 25mm / self-grilling screws/self-lapping of dimensions 5.6x25mm The horizontal aluminium 'C'-clamps shall be fixed on top of the vertical aluminium 'T'/'L' / Tube sections from front using two AISI 304 stainless steel self drilling/ self-tapping screws. The tiles shall be mounted on the C-clamps such that the tiles are supported at top and bottom at both ends. The tiles shall be additionally secured to the horizontal C-clamps using special stainless steel clips which shall be inserted and pressed into position on the C-clamps holding the tiles. In certain cases, instead of securing tiles with clips , the tiles shall be glued at points to the horizontal C-clamps using an MS Polymer Sealant adhesive. The vertical joint between adjacent tiles to be a 6mm open groove		
97(a)	TBSC-C.IV-15	Colour: Natural Brick Terracotta	1 Sqm	8,605.00
97(b)	TBSC-C.IV-16	Colour: Wine Red/ Peach/ Coffee Brown/ Chocolate	1 Sqm	8,940.00
97(c)	TBSC-C.IV-17	Colour: White/ Desert Beige/ Grey	1 Sqm	8,220.00
V	SUB-SECTION	GLASS MOSAIC TILES		
98	TBSC-C.V-01	Supply of glazed full body glass mosaic tiles of 20 x 20 x 4 mm thick in specified pattern 1st Quality of any colour and design	1 Sqm	1,309.00
99	TBSC-C.V-02	Providing Glass Mosaic tiles using specified pattern fixing in specified thick epoxy emulsion grout of epoxy resins and filler powder of approved colour grout including all taxes excluding cost of tiles	1 Sqm	295.00
100	TBSC-C.V-03	Providing Glass Mosaic tiles using specified pattern fixing in specified thick cementitious powder mix cement grout and approved colour grout including all taxes excluding cost of tiles	1 Sqm	114.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
VI	SUB-SECTION	WALL CLADDING TILES		
101	TBSC-C.VI-01	Supply of glazed full body porcelain tiles for external cladding purposes of any size and thickness between 6-10 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	578.00
102	TBSC-C.VI-02	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 5-7 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	504.00
103	TBSC-C.VI-03	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 10-12 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	546.00
	TBSC-C.VI-04	Supply of glazed red or white full body ceramic tiles for external cladding purposes of any size and thickness between 18-20 mm 1st quality conforming to IS:15622 - 2017, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	Deleted
VII	SUB-SECTION	TERRAZZO FLOOR TILES (PLAIN & CHEQUERED)		
104	TBSC-C.VII-01	Supplying precast terrazzo tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick white shades.	1 Sqm	275.00
105	TBSC-C.VII-02	Supplying precast terrazzo plain tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick any coloured shades.	1 Sqm	292.00
106	TBSC-C.VII-03	Supplying precast terrazzo chequered tiles conforming to IS: 13801 using marble aggregates of size 10 mm , sand, marble powder, white cement pigments etc., with terrazzo topping not less than 6 mm of tiles overall size not less than 20 mm thick of any coloured shades.	1 Sqm	300.00
VIII	SUB-SECTION	CEMENT CONCRETE FLOOR TILES (PLAIN & CHEQUERED)		
107	TBSC-C.VIII-01	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	258.00
108	TBSC-C.VIII-02	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 20 mm of any shades.	1 Sqm	271.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
109	TBSC-C.VIII-03	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	275.00
110	TBSC-C.VIII-04	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 300 x 300 mm and thickness 25 mm of any shades.	1 Sqm	288.00
111	TBSC-C.VIII-05	Supplying plain Cement Concrete general purpose tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	300.00
112	TBSC-C.VIII-06	Supplying Chequered Cement Concrete heavy duty tiles conforming to IS: 13801 using aggregates, cement, pigments of size 400 x 400 mm and thickness 25 mm of any shades.	1 Sqm	315.00
113	TBSC-C.VIII-07	Supply of high strength Cement Concrete plain Step tiles with edge half rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of regular colour, design and of 25 mm thickness	1 Sqm	449.00
114	TBSC-C.VIII-08	Supply of high strength Cement Concrete terrazzo/pre-polished/ chequered Step tiles with edge rounded and grooved conforming to IS: 13801 using aggregates, cement, pigments of any premium colour, design and of 25 mm thickness	1 Sqm	472.00
115	TBSC-C.VIII-09	Supply of COOL ROOF SRI TILES 300x300 mm and thickness 8mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	525.00
116	TBSC-C.VIII-10	Supply of COOL ROOF SRI TILES 300x300 mm and thickness 10mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	600.00
117	TBSC-C.VIII-11	Supply of COOL ROOF SRI TILES 400x400 mm and thickness 10mm 1st quality conforming to IS:4457:2007, IS:13630 (Parts 1 to 15) of any colour and finish in all shades and designs	1 Sqm	700.00
IX	SUB-SECTION	PRE-CAST CONCRETE BLOCKS FOR PAVING		
118	TBSC-C.IX-01	Supply of precast concrete blocks for paving of M-30 grade and thickness not less than 50 mm for Non-traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	320.00
119	TBSC-C.IX-02	Supply of precast concrete blocks for paving of M-35 grade and thickness not less than 60 mm for Light traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	345.00
120	TBSC-C.IX-03	Supply of precast concrete blocks for paving of M-40 grade and thickness not less than 80 mm for Medium traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	494.00
121	TBSC-C.IX-04	Supply of precast concrete blocks for paving	1 Sqm	544.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of M-50 grade and thickness not less than 100 mm for Heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification		
122	TBSC-C.IX-05	Supply of precast concrete blocks for paving of M-55 grade and thickness not less than 120 mm for very heavy traffic areas conforming to IS 15658:2006 in all shapes and designs as per the manufacturer's specification	1 Sqm	619.00
123	TBSC-C.IX-06	Labour charges for laying & fixing of precast concrete blocks for paving of all grades, any thickness, all sizes & shapes including all labour charges for loading & unloading, laying to desired lines and levels complete excluding cost of cement, sand, water, electricity etc	1 Sqm	257.00
X	SUB-SECTION	VINYL FLOORING		
124	TBSC-C.X-01	Vinyl Flooring Sheets/ tiles having a nominal total thickness of 2 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	893.00
125	TBSC-C.X-02	Vinyl Composition Floor Tiles of size 305 mm x 305 mm having an overall thickness of 2.0mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	612.00
126	TBSC-C.X-03	Vinyl Flooring Sheets or tiles having a nominal total thickness of 1.5 mm with a wearing surface impregnated polyurethane homogeneous mixture of PVC, Plasticizers, Urethane, color pigments with wearing resistance and Fire Resistance as per standards	1 Sqm	445.00
D	SECTION	TIMBER & ROOFING MATERIALS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
		Note: Before proposing the Teak Wood Items, the estimating authorities shall obtain prior approval from the competent authority		
I	SUB-SECTION	MEDIUM TEAK WOOD		
130	TBSC-D.I-01	Medium Teak Wood scantlings: up to 2.0 M	1 cum	87,923.00
131	TBSC-D.I-02	Medium Teak Wood scantlings: 2.0 to 3.0 M	1 cum	97,692.00
132	TBSC-D.I-03	Medium Teak Wood scantlings: above 3.0 M	1 cum	1,07,462.00
133	TBSC-D.I-04	Medium Teak Wood Planks: any thickness	1 cum	1,75,844.00
II	SUB-SECTION	BEST TEAK WOOD		
134	TBSC-D.II-01	Best Teak Wood scantlings: up to 2.0 M	1 cum	1,51,421.00
135	TBSC-D.II-02	Best Teak Wood scantlings: 2.0 to 3.0 M	1 cum	1,61,191.00
136	TBSC-D.II-03	Best Teak Wood scantlings: above 3.0 M	1 cum	1,70,960.00
137	TBSC-D.II-04	Best Teak Wood Planks: any thickness	1 cum	1,90,498.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
III	SUB-SECTION	BURMA TEAK WOOD		
138	TBSC-D.III-01	Burma Teak Wood scantlings: up to 2.0 M	1 cum	2,08,069.00
139	TBSC-D.III-02	Burma Teak Wood scantlings: 2.0 to 3.0 M	1 cum	2,14,012.00
140	TBSC-D.III-03	Burma Teak Wood scantlings: above 3.0 M	1 cum	2,25,095.00
141	TBSC-D.III-04	Burma Teak Wood Planks: any thickness	1 cum	2,43,738.00
142	TBSC-D.III-05	Teak Wood scantlings of Grade A or First Grade of high-quality timber, superior color, grain pattern, and durability of any size conforming to IS 12896:1990	1 cum	3,63,946.00
143	TBSC-D.III-06	Teak Wood planks of Grade A or First Grade of high-quality timber, superior color, grain pattern, and durability of any thickness conforming to IS 12896:1990	1 cum	3,93,062.00
IV	SUB-SECTION	ASSAM TEAK WOOD		
144	TBSC-D.IV-01	Assam Teak Wood scantlings: any length	1 cum	55,780.00
145	TBSC-D.IV-02	Assam Teak Wood Planks: any thickness	1 cum	80,881.00
V	SUB-SECTION	SAL/ COUNTRY WOOD		
146	TBSC-D.V-01	Sal Wood scantlings: any length	1 cum	54,224.00
147	TBSC-D.V-02	Sal Wood Planks: any thickness	1 cum	72,298.00
VI	SUB-SECTION	ROOFING MATERIAL		
148	TBSC-D.VI-01	A.C sheet Corrugated 6 mm thick	1 Sqm	263.00
149	TBSC-D.VI-02	A.C sheet plain 4 m thick	1 Sqm	190.00
150	TBSC-D.VI-03	A.C sheet plain 6 m thick	1 Sqm	198.00
151	TBSC-D.VI-04	Plain or Corrugated Galvanized iron sheets as per IS 277 (0.1 mm to 0.8 mm thickness)	1 kg	74.00
152	TBSC-D.VI-05	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	464.00
153	TBSC-D.VI-06	Supply of Pre-painted Galvalume Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Alu-Zinc coating AZ150 GSM. Tensile Strength: 550 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	452.00
154	TBSC-D.VI-07	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.50mm thickness, Coating: Zinc coating Z120 GSM. Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours	1 Sqm	407.00
155	TBSC-D.VI-08	Supply of Pre-painted Galvanized Trapezoidal Profile Roofing sheets with 0.47mm thickness, Coating: Zinc coating Z120 GSM.	1 Sqm	382.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Tensile Strength: 300 MPA. Paint coating: Regular Modified Polyester painting. Painting Thickness (Top): 18 to 20 Microns, (Bottom): 5 to 7 Microns. Sheet Width: 1.020, Length: Maximum 12 Meters with Regular Range Colours		
156	TBSC-D.VI-09	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.50mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	312.00
157	TBSC-D.VI-10	Supply of Roof Accessories medium size: Ridge, Barge Cap, Corner Trim, L-Flashing, Down Pipes, Gutter etc., with 0.47mm thick, Width: 0.585, Length: Maximum 2½ Meters	1 RM	279.00
158	TBSC-D.VI-11	Supply of fibre reinforced corrugated sheets 6 mm thick(Non asbestos) in compliance with Type-A Category -C class-7 of IS 14871 for roofing	1 Sqm	383.00
159	TBSC-D.VI-12	Supply of pre painted fibre reinforced corrugated sheets 6mm thick(Non asbestos) in compliance with Type-A Category -C class-7 of IS 14871 for roofing	1 RM	455.00
160	TBSC-D.VI-13	75 mm long screws -	1 Each	9.00
161	TBSC-D.VI-14	G.I scam bolts & nuts	1 Each	10.00
162	TBSC-D.VI-15	G.I bolts & nuts	1 Each	10.00
163	TBSC-D.VI-16	G.I 'J' bolts 8 mm Diameter	1 Each	14.00
164	TBSC-D.VI-17	G.I Washers	1 Each	6.00
165	TBSC-D.VI-18	Limpet washers (for scam & 'J' bolts)	1 Each	6.00
166	TBSC-D.VI-19	Bitumen washers	1 Each	6.00
167	TBSC-D.VI-20	Supply of UV resistant multi-wall polycarbonate sheets for roofing of any colour - 6 mm thick	1 Sqm	1,525.00
168	TBSC-D.VI-21	Aluminium universal glazing set 40 mm wide for jointing and fixing polycarbonate sheets	1 RM	156.00
169	TBSC-D.VI-22	Providing 10mm thick UV resistant multiwall polycarbonate sheets fixed to the purlins with aluminum universal glazing set 40mm wide for jointing and fixing sheets and 14 size self-drilling screws with neoprene washer. Side laps are stitched with self-tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape including cost and conveyance of all materials and labour charges, overheads and contractor's profits , etc. complete for finished item of work	1 Sqm	2,474.00
170	TBSC-D.VI-23	Supply of Galvanized Roofing Deck sheets with 0.80mm -2mm thickness, Coating: Zinc coating Z125 / Z275/ Z 500 GSM. Yield Strength: E250. crest to crest width 130 mm length 12 metres : profile width 982mm and profile depth 44mm CR steel as per IS-513 HR steel as per IS 1079 and Galvanised Steel as per IS 277	1 kg	129.00
E	SECTION	STEEL MATERIALS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
I	SUB-SECTION	MILD STEEL MATERIALS		
171	TBSC-E.I-01	Supply & fixing of Rolling shutter made of 80 x 1.25 mm machine rolled CRCA laths, interlocked together through their entire length and jointed together at the ends by end-locks, mounted on specially designed pipe shaft of 50mm Diameter nominal bore MS B class pipe with brackets, plates, guide channels, stoppers, bottom locking plates and arrangements for inside & outside locking with push-pull operations including cost of hood cover and springs complete, painted with one coat of approved steel primer, locks, ball bearings, all accessories etc complete for finished item of work as per special Spec: 1108	1 Sqm	4,733.00
172	TBSC-E.I-02	Supplying & fixing collapsible steel shutters with vertical, double channel of 20 x10x2 mm of 100 mm centre ,Bracers with flat iron 40x40x6 mm with 38 mm Diameter steel pulleys, the top, bottom and side vertical frames of the collapsible gate with 65x65mmx8mm MS Angle and middle guide rail at site height with 65mmx8mm MS flat for the pulleys to guide and fixed with necessary hold fasts, bolts, nuts, rivets, locking arrangements, stoppers, handles, all accessories all fixtures and painted with one coat of approved steel primer etc., complete for finished item of work as per special Spec 1105	1 Sqm	4,140.00
173	TBSC-E.I-03	Expanded metal sheets as per IS-412-1962-Light Weight-25 mm(SWM)x75 mm (LWM)3.25 mm Wide and 1.25 mm thick	1 Sqm	192.00
174	TBSC-E.I-04	Expanded metal sheets as per IS-412-1962-Light Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	192.00
175	TBSC-E.I-05	Expanded metal sheets as per IS-412-1962-Light Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.25 mm thick	1 Sqm	192.00
176	TBSC-E.I-06	Expanded metal sheets as per IS-412-1962-Medium Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 1.60 mm thick	1 Sqm	261.00
177	TBSC-E.I-07	Expanded metal sheets as per IS-412-1962-Medium Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	261.00
178	TBSC-E.I-08	Expanded metal sheets as per IS-412-1962-Medium Weight-20 mm(SWM)x50 mm(LWM) 2.50 mm Wide and 1.60 mm thick	1 Sqm	261.00
179	TBSC-E.I-09	Expanded metal sheets as per IS-412-1962-Heavy Weight-25 mm(SWM)x75 mm(LWM) 3.25 mm Wide and 2.24 mm thick	1 Sqm	299.00
180	TBSC-E.I-10	Expanded metal sheets as per IS-412-1962-Heavy Weight-20 mm(SWM)x60 mm(LWM) 2.50 mm Wide and 2.24 mm thick	1 Sqm	299.00
181	TBSC-E.I-11	Expanded metal sheets as per IS-412-1962-Heavy Weight-20 mm(SWM)x50 mm(LWM)	1 Sqm	299.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		2.50 mm Wide and 2.24 mm thick		
182	TBSC-E.I-12	Rabbit wire mesh (chicken mesh) of not less than 30 gauge	1 Sqm	24.00
183	TBSC-E.I-13	Country Nails	1 Kg	76.00
184	TBSC-E.I-14	Wire Nails	1 Kg	76.00
185	TBSC-E.I-15	Supply of Structural Steel hollow Tubular sections of 240 MPA grade conforming to IS 1161-2014 including loading, transportation and unloading charges	1 Kg	81.00
186	TBSC-E.I-16	Supply of Structural Steel hollow Square & Rectangular sections of 240 MPA grade conforming to IS 4923-1997 including loading, transportation and unloading charges	1 Kg	81.00
187	TBSC-E.I-17	Supply of Cold Rolled Close Annealed - CRCA Sheets with base material conforming to IS:513 - 2008 for Door / Window/ Glazing frames as per IS:4351 - 2003 and galvanized sections/ profiles as per IS:277 - 2003 and Furniture sheets (CR1 to CR5) including all loading, transportation and unloading charges	1 Kg	81.00
188	TBSC-E.I-18	Supply of Structural Steel hollow Tubular sections of 310 MPA grade conforming to IS 1161-2014 including loading, transportation and unloading charges	1 Kg	89.00
189	TBSC-E.I-19	Supply of Structural Steel hollow Square & Rectangular sections of 310 MPA grade conforming to IS 4923-1997 including loading, transportation and unloading charges	1 kg	89.00
190	TBSC-E.I-20	Supply of Structural Steel hollow Tubular sections of 355 MPA grade conforming to IS 1161-2014 including loading, transportation and unloading charges	1 kg	97.00
191	TBSC-E.I-21	Supply of Structural Steel hollow Square & Rectangular sections of 355 MPA grade conforming to IS 4923-1997 including loading, transportation and unloading charges	1 Kg	97.00
II	SUB-SECTION	GALVANIZED STEEL MATERIALS		
192	TBSC-E.II-01	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type A - IOWA Type Designation as per standard specification	1 Kg	110.00
193	TBSC-E.II-02	Supplying Galvanized Steel Barbed wire conforming to IS 278 - 1978 : Type B - Glidden Type Designation as per standard specification	1 Kg	110.00
194	TBSC-E.II-03	Galvanized Iron fly proof wire mesh of not less than 20 gauge	1 Sqm	284.00
195	TBSC-E.II-04	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	622.00
196	TBSC-E.II-05	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	492.00
197	TBSC-E.II-06	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	421.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
198	TBSC-E.II-07	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979: 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	314.00
199	TBSC-E.II-08	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2"x2" (50 mm x 50 mm) - 8 Gauge	1 Sqm	750.00
200	TBSC-E.II-09	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 2½"x2½" (63 mm x 63 mm) - 8 Gauge	1 Sqm	622.00
201	TBSC-E.II-10	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 3"x3" (76 mm x 76 mm) - 8 Gauge	1 Sqm	514.00
202	TBSC-E.II-11	Hot dipped Galvanized Iron Chain link mesh 8 gauge - (4.0 mm) as per IS: 2721-1979 - PVC Coated - 4"x4" (102 mm x 102 mm) - 8 Gauge	1 Sqm	400.00
III	SUB-SECTION	STAINLESS STEEL MATERIALS		
203	TBSC-E.III-01	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & Diameters for - 304 Grade	1 Kg	434.00
204	TBSC-E.III-02	Stainless steel fly proof wire mesh of not less than 20 gauge	1 Sqm	626.00
205	TBSC-E.III-03	Stainless Steel Tubes, sections, plates, sheets & pipes of all sizes & Diameters for - 316 Grade	1 Kg	464.00
F	SECTION	GLASS MATERIALS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	PLAIN GLASS PANES		
206	TBSC-F.I-01	Plain Float Glass 4 mm thick	1 Sqm	480.00
207	TBSC-F.I-02	Plain Float Glass 5 mm thick	1 Sqm	608.00
208	TBSC-F.I-03	Plain Float Glass 6 mm thick	1 Sqm	753.00
209	TBSC-F.I-04	Plain Float Glass 8 mm thick	1 Sqm	1,011.00
210	TBSC-F.I-05	Plain Float Glass 10 mm thick	1 Sqm	1,065.00
211	TBSC-F.I-06	Plain Float Glass 12 mm thick	1 Sqm	1,276.00
II	SUB-SECTION	PIN HEADED GLASS PANES		
212	TBSC-F.II-01	Pin headed Glass 4 mm thick	1 Sqm	360.00
213	TBSC-F.II-02	Pin headed Glass 5 mm thick	1 Sqm	467.00
III	SUB-SECTION	TINTED GLASS PANES		
214	TBSC-F.III-01	Tinted - Bronze/ Green Glass 4 mm thick	1 Sqm	559.00
215	TBSC-F.III-02	Tinted - Bronze/ Green Glass 5 mm thick	1 Sqm	699.00
216	TBSC-F.III-03	Tinted - Bronze/ Green Glass 6 mm thick	1 Sqm	837.00
217	TBSC-F.III-04	Tinted - Bronze/ Green Glass 8 mm thick	1 Sqm	1,199.00
218	TBSC-F.III-05	Tinted - Bronze/ Green Glass 10 mm thick	1 Sqm	1,397.00
219	TBSC-F.III-06	Tinted - Bronze/ Green Glass 12 mm thick	1 Sqm	1,676.00
220	TBSC-F.III-07	Reflective - Bronze/Green/Grey/Blue/Gold Glass 4mm thick	1 Sqm	642.00
221	TBSC-F.III-08	Reflective - Bronze/Green/Grey/Blue/Gold Glass 5mm thick	1 Sqm	802.00
222	TBSC-F.III-09	Reflective - Bronze/Green/Grey/Blue/Gold Glass 6mm thick	1 Sqm	962.00
223	TBSC-F.III-10	Reflective - Bronze/Green/Grey/Blue/Gold Glass 8mm thick	1 Sqm	1,709.00
224	TBSC-F.III-11	Reflective - Bronze/Green/Grey/Blue/Gold Glass 10mm thick	1 Sqm	2,137.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
225	TBSC-F.III-12	Reflective - Bronze/Green/Grey/Blue/Gold Glass 12mm thick	1 Sqm	2,564.00
IV	SUB-SECTION	FROSTED/ GROUND GLASS PANES		
226	TBSC-F.IV-01	Frosted / Ground Glass 4 mm thick	1 Sqm	645.00
227	TBSC-F.IV-02	Frosted / Ground Glass 5 mm thick	1 Sqm	812.00
V	SUB-SECTION	TOUGHENED GLASS PANES		
228	TBSC-F.V-01	Toughened Plain Glass 5 mm (including Glass)	1 Sqm	971.00
229	TBSC-F.V-02	Toughened Plain Glass 6 mm (including Glass)	1 Sqm	1,122.00
230	TBSC-F.V-03	Toughened Plain Glass 8 mm (including Glass)	1 Sqm	1,496.00
231	TBSC-F.V-04	Toughened Plain Glass 10 mm (including Glass)	1 Sqm	1,792.00
232	TBSC-F.V-05	Toughened Plain Glass 12 mm (including Glass)	1 Sqm	2,089.00
VI	SUB-SECTION	HERMETICALLY SEALED PANES - (Rates for following items are with 5 mm thick toughened clear float glass, rates for other glasses can be derived from adding/deducting the difference of cost of selected glass)		
233	TBSC-F.VI-01	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) with 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type I - Dry Air Insulated - Regular IGU	1 Sqm	3,366.00
234	TBSC-F.VI-02	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) with 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary	1 Sqm	3,383.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type II - Inert gases such as argon, krypton, and xenon - IGU		
235	TBSC-F.VI-03	Supplying and fixing of hermetically Sealed Insulated (IGU) Double Glazed Glass Unit (DGU) using 5 mm thick toughened Clear Glass both sides and hollow aluminium spacer bar frames where frame is bent at 90 degree angle and assembled with only one joint, called a bent frame filled with desiccant of appropriate grade molecular sieve desiccant of adsorption capacity by weight, 20-30% by weight, capacity to dry air down to an extremely low PPMv level, <100 ppm (%RH) fixed to the glasses of specified thickness and quality with primary and secondary sealants of Poly ISO Butylene, or Butyl, primary sealant and Silicone and Polysulfide secondary sealants, to help fixing the IGU at the time of assembly and protect the gas filled spaces from moisture vapor penetration, chemical attack from cleaning fluids and glazing products, and liquid water penetration due to rain or condensation complete for Type III - Vacuum sealed IGU	1 Sqm	3,631.00
VII	SUB-SECTION	PERFORMANCE GLASS		
236	TBSC-F.VI-04	Providing low-emissivity coating for energy efficiency, high-performance glass with low U value, for recommended RHG, SRI, SHGC, and VLT as per green building - GRIHA/ LEED stipulations, for any thickness of glass (Extra on base glass cost)	1 Sqm	503.00
VIII	SUB-SECTION	FIRE RATED GLASS		
237	TBSC-F.VIII-01	Providing clear fire rated, having intumescent gel-filled single chambeed, non-wired, toughened interlayered glass with 120 min. integrity (E 120), restrict heat radiation rise to 15 KW/Sq.m from a distance of 1m from glass (EW 120) & 20 min. Insulation (EI 20) with a visual light transmission of 86%, U-value of 5.4, sound reduction of 37 dB & compliance to class 1(B)1 category of Impact Resistance as per EN 12600 with anti-spontaneous breakages after Installation for any thickness of glass (Extra on base glass cost)	1 Sqm	516.00
G	SECTION	PAINTS & POLISHES		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
I	SUB-SECTION	PRIMERS, FILLERS & BASES		
238	TBSC-G.I-01	Supply of water based Cement Primer of Interior Grade- 1	1 Kg	174.00
239	TBSC-G.I-02	Supply of water based Cement Primer of Exterior Grade- 2	1 Kg	220.00
240	TBSC-G.I-03	Supply of wall putty of White Cement or Polymer or Cement based	1 Kg	42.00
241	TBSC-G.I-04	Acrylic spray plaster in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion any grade	1 Kg	34.00
242	TBSC-G.I-05	Supply of Red Oxide Primer Paint for iron works of Grade -1	1 Lit	150.00
243	TBSC-G.I-06	Supply of Zinc Chromate Yellow Oxide Primer paint for iron works	1 Lit	238.00
244	TBSC-G.I-07	Supply of Wood Primer	1 Lit	168.00
245	TBSC-G.I-08	Supply of Metal paste (Putty) for steel works	1 Kg	168.00
246	TBSC-G.I-09	Supply of Putty for wood work (Powder chalk)	1 Kg	168.00
247	TBSC-G.I-10	Supply of White Lead	1 Kg	121.00
248	TBSC-G.I-11	Supply of Synthetic clear Varnish	1 Lit	168.00
249	TBSC-G.I-12	Supply of Spirit	1 Lit	119.00
250	TBSC-G.I-13	Supply of Linseed Oil	1 Lit	68.00
251	TBSC-G.I-14	Supply of thinner for melamine polish/ French polish	1 Lit	155.00
252	TBSC-G.I-15	Supply of thinner for Poly-urethane polish	1 Lit	316.00
253	TBSC-G.I-16	Supply of French Polish	1 Lit	219.00
254	TBSC-G.I-17	Supply of ready made Wax Polish	1 Kg	662.00
255	TBSC-G.I-18	Supply of wood adhesive compound	1 Kg	261.00
256	TBSC-G.I-19	Supply of anti-corrosive grade - 1 bitumen paint of black colour	1 Lit	598.00
257	TBSC-G.I-20	Acrylic coarse spray plaster to cover undulations in paste form made with specially selected inert mineral fillers, antifungal agents to protect the material the acrylic binding medium used gives good surface adhesion interior grade	1 Kg	19.00
258	TBSC-G.I-21	Supply of coarse wall putty of grey cement or polymer or cement based to cover exterior undulations	1 Kg	51.00
259	TBSC-G.I-22	Supply of base coat as primer for natural textures and natural stone based paints - Exterior grade	1 Kg	68.00
II	SUB-SECTION	LIME, DISTEMPERS & CEMENT PAINTS		
260	TBSC-G.II-01	Supply of paint grade lime for white / colour wash	1 Kg	28.00
261	TBSC-G.II-02	Supply of Dry Powder Distemper	1 Kg	52.00
262	TBSC-G.II-03	Supply of acrylic based Oil Bound washable Distemper	1 Kg	64.00
263	TBSC-G.II-04	Supply of Water proof Cement paint	1 Kg	61.00
III	SUB-SECTION	EMULSION BASED PAINTS		
264	TBSC-G.III-01	Supply of acrylic emulsion paint interior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	227.00
265	TBSC-G.III-02	Supply of acrylic emulsion paint exterior	1 Lit	238.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		grade with silicon additives having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.		
266	TBSC-G.III-03	Supply of acrylic emulsion paint weather proof water-based, modified acrylic with silicon additives exterior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	262.00
267	TBSC-G.III-04	Supply of acrylic emulsion paint interior premium grade having VOC content less than 50gm/lit	1 Lit	265.00
268	TBSC-G.III-05	Supply of semi glossy acrylic emulsion paint exterior premium grade with silicon additives having VOC content less than 50gm/lit	1 Lit	376.00
269	TBSC-G.III-06	Supply of natural stone based high UV resistant topcoat exterior emulsion paint	1 Kg	83.00
IV	SUB-SECTION	SOLVENT BASED PAINTS		
270	TBSC-G.IV-01	Supply of solvent based latex paint having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	285.00
271	TBSC-G.IV-02	Supply of synthetic polymer luxury plastic emulsion / solvent based luster paint of superior grade having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	498.00
V	SUB-SECTION	OIL BASED ENAMEL PAINTS		
272	TBSC-G.V-01	Supply of ready mixed Synthetic Enamel in all shades Grade - I / Polyurethane full gloss Enamel (IS - 13213) paints having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	291.00
273	TBSC-G.V-02	Supply of ready mixed Synthetic Enamel / Epoxy enamel (IS - 14209) paints in all shades Grade - II having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Lit	223.00
VI	SUB-SECTION	TEXTURE PAINTS		
274	TBSC-G.VI-01	Exterior grade Texture ready mixed paint with sand texture added sand particles Acrylic copolymers and mineral compounds, bactericides and various additives having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Kg	44.00
275	TBSC-G.VI-02	Exterior grade Texture ready mixed plaster made with natural minerals - granite flakes/ marble flakes/ powder, sand and other carefully selected and sieved minerals in an acrylic binding medium having VOC (Volatile Organic Compound) content less than 30 grams/ Lit.	1 Kg	56.00
276	TBSC-G.VI-03	Exterior grade natural textures ready mixed plaster made with natural mineral - granite flakes/marble flakes/powder, sand and other carefully selected and sieved minerals in an acrylic binding medium	1 Kg	81.00
277	TBSC-G.VI-04	Exterior grade natural textures in roller finish ready mixed plaster made with natural mineral - marble powder sand and other	1 Kg	84.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		carefully selected and sieved minerals in an acrylic binding medium		
VII	SUB-SECTION	SPECIAL PAINTS		
278	TBSC-G.VII-01	Supply of Melamine Polish	1 Lit	368.00
279	TBSC-G.VII-02	Supply of Interior Grade Poly-Urethane Polish	1 Lit	748.00
280	TBSC-G.VII-03	Supply of Exterior Grade Poly-Urethane Polish	1 Lit	913.00
281	TBSC-G.VII-04	Supply of grade-1 aluminium paint	1 Lit	299.00
H	SECTION	PARTICLE BOARDS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	MELAMINE FACED PLAIN PARTICLE BOARD		
282	TBSC-H.I-01	Melamine faced Single Deco Plain Particle Board- 8 mm thick conforming to IS 3129	1 Sqm	733.00
283	TBSC-H.I-02	Melamine faced Single Deco Plain Particle Board- 12 mm thick conforming to IS 3129	1 Sqm	833.00
284	TBSC-H.I-03	Melamine faced Single Deco Plain Particle Board- 18 mm thick conforming to IS 3129	1 Sqm	964.00
285	TBSC-H.I-04	Melamine faced Single Deco Plain Particle Board- 25 mm thick conforming to IS 3129	1 Sqm	1,094.00
286	TBSC-H.I-05	Melamine faced Single Deco Plain Particle Board- 35 mm thick conforming to IS 3129	1 Sqm	1,815.00
287	TBSC-H.I-06	Melamine faced Twin Deco Plain Particle Board- 8 mm thick conforming to IS 3129	1 Sqm	846.00
288	TBSC-H.I-07	Melamine faced Twin Deco Plain Particle Board- 12 mm thick conforming to IS 3129	1 Sqm	964.00
289	TBSC-H.I-08	Melamine faced Twin Deco Plain Particle Board-18 mm thick conforming to IS 3129	1 Sqm	1,116.00
290	TBSC-H.I-09	Melamine faced Twin Deco Plain Particle Board-25 mm thick conforming to IS 3129	1 Sqm	1,235.00
291	TBSC-H.I-10	Melamine faced Twin Deco Plain Particle Board-35 mm thick conforming to IS 3129	1 Sqm	2,320.00
II	SUB-SECTION	INSULATING PARTICLE BOARDS		
292	TBSC-H.II-01	Natural Colour-Insulating Board - 12 mm thick conforming to IS 3348	1 Sqm	276.00
293	TBSC-H.II-02	Natural Colour-Insulating Board - 18 mm thick conforming to IS 3348	1 Sqm	404.00
294	TBSC-H.II-03	Natural Colour-Insulating Board - 25 mm thick conforming to IS 3348	1 Sqm	517.00
295	TBSC-H.II-04	White Insulating Board - 12 mm thick conforming to IS 3348	1 Sqm	334.00
296	TBSC-H.II-05	White Insulating Board - 18 mm thick conforming to IS 3348	1 Sqm	478.00
297	TBSC-H.II-06	White Insulating Board - 25 mm thick conforming to IS 3348	1 Sqm	425.00
III	SUB-SECTION	MEDIUM DENSITY FIBRE BOARDS		
298	TBSC-H.III-01	Medium Fibre Board: Interior Grade - 6 mm thick conforming to IS 15932	1 Sqm	448.00
299	TBSC-H.III-02	Medium Fibre Board: Interior Grade - 8 mm thick conforming to IS 15932	1 Sqm	508.00
300	TBSC-H.III-03	Medium Fibre Board: Interior Grade - 12 mm thick conforming to IS 15932	1 Sqm	678.00
301	TBSC-H.III-04	Medium Fibre Board: Interior Grade - 15 mm thick conforming to IS 15932	1 Sqm	861.00
302	TBSC-H.III-05	Medium Fibre Board: Interior Grade - 18 mm thick conforming to IS 15932	1 Sqm	961.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
303	TBSC-H.III-06	Medium Fibre Board: Interior Grade - 25 mm thick conforming to IS 15932	1 Sqm	1,363.00
304	TBSC-H.III-07	Medium Fibre Board: Interior Grade - 30 mm thick conforming to IS 15932	1 Sqm	1,645.00
305	TBSC-H.III-08	Medium Fibre Board: Interior Grade - 35 mm thick conforming to IS 15932	1 Sqm	1,797.00
306	TBSC-H.III-09	Medium Fibre Board: Exterior Grade - 6 mm thick conforming to IS 15932	1 Sqm	608.00
307	TBSC-H.III-10	Medium Fibre Board: Exterior Grade - 8 mm thick conforming to IS 15932	1 Sqm	706.00
308	TBSC-H.III-11	Medium Fibre Board: Exterior Grade - 12 mm thick conforming to IS 15932	1 Sqm	936.00
309	TBSC-H.III-12	Medium Fibre Board: Exterior Grade - 15 mm thick conforming to IS 15932	1 Sqm	1,175.00
310	TBSC-H.III-13	Medium Fibre Board: Exterior Grade - 18 mm thick conforming to IS 15932	1 Sqm	1,314.00
311	TBSC-H.III-14	Medium Fibre Board: Exterior Grade - 25 mm thick conforming to IS 15932	1 Sqm	1,752.00
312	TBSC-H.III-15	Medium Fibre Board: Exterior Grade - 30 mm thick conforming to IS 15932	1 Sqm	2,181.00
313	TBSC-H.III-16	Medium Fibre Board: Exterior Grade - 35 mm thick conforming to IS 15932	1 Sqm	2,576.00
314	TBSC-H.III-17	MDF Board: Plain-Interior - 9 mm thick conforming to IS 15932	1 Sqm	411.00
315	TBSC-H.III-18	MDF Board: Plain-Interior - 12 mm thick conforming to IS 15932	1 Sqm	466.00
316	TBSC-H.III-19	MDF Board: Plain-Interior - 18 mm thick conforming to IS 15932	1 Sqm	577.00
317	TBSC-H.III-20	MDF Board: Plain-Interior - 25 mm thick conforming to IS 15932	1 Sqm	692.00
318	TBSC-H.III-21	MDF Board: Plain-Interior - 30 mm thick conforming to IS 15932	1 Sqm	1,052.00
319	TBSC-H.III-22	MDF Board: Plain-Interior - 35 mm thick conforming to IS 15932	1 Sqm	1,243.00
320	TBSC-H.III-23	MDF Board: Plain-Exterior - 9 mm thick conforming to IS 15932	1 Sqm	536.00
321	TBSC-H.III-24	MDF Board: Plain-Exterior - 12 mm thick conforming to IS 15932	1 Sqm	577.00
322	TBSC-H.III-25	MDF Board: Plain-Exterior - 18 mm thick conforming to IS 15932	1 Sqm	755.00
323	TBSC-H.III-26	MDF Board: Plain-Exterior - 25 mm thick conforming to IS 15932	1 Sqm	948.00
324	TBSC-H.III-27	MDF Board: Plain-Exterior - 30 mm thick conforming to IS 15932	1 Sqm	1,243.00
325	TBSC-H.III-28	MDF Board: Plain-Exterior - 35 mm thick conforming to IS 15932	1 Sqm	1,434.00
326	TBSC-H.III-29	MDF Board: Interior-One Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	642.00
327	TBSC-H.III-30	MDF Board: Interior-One Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	726.00
328	TBSC-H.III-31	MDF Board: Interior-One Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	844.00
329	TBSC-H.III-32	MDF Board: Interior-One Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	948.00
330	TBSC-H.III-33	MDF Board: Interior-One Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,369.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
331	TBSC-H.III-34	MDF Board: Interior-One Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,461.00
332	TBSC-H.III-35	MDF Board: Exterior-One Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	736.00
333	TBSC-H.III-36	MDF Board: Exterior-One Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	829.00
334	TBSC-H.III-37	MDF Board: Exterior-One Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	937.00
335	TBSC-H.III-38	MDF Board: Exterior-One Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1,096.00
336	TBSC-H.III-39	MDF Board: Exterior-One Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,461.00
337	TBSC-H.III-40	MDF Board: Exterior-One Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,550.00
338	TBSC-H.III-41	MDF Board: Interior-Both Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	732.00
339	TBSC-H.III-42	MDF Board: Interior-Both Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	829.00
340	TBSC-H.III-43	MDF Board: Interior-Both Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	948.00
341	TBSC-H.III-44	MDF Board: Interior-Both Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1,190.00
342	TBSC-H.III-45	MDF Board: Interior-Both Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,461.00
343	TBSC-H.III-46	MDF Board: Interior-Both Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,550.00
344	TBSC-H.III-47	MDF Board: exterior-Both Side Laminated -9 mm thick conforming to IS 15932	1 Sqm	829.00
345	TBSC-H.III-48	MDF Board: exterior-Both Side Laminated -12 mm thick conforming to IS 15932	1 Sqm	937.00
346	TBSC-H.III-49	MDF Board: exterior-Both Side Laminated -18 mm thick conforming to IS 15932	1 Sqm	1,107.00
347	TBSC-H.III-50	MDF Board: exterior-Both Side Laminated -25 mm thick conforming to IS 15932	1 Sqm	1,210.00
348	TBSC-H.III-51	MDF Board: exterior-Both Side Laminated -30 mm thick conforming to IS 15932	1 Sqm	1,532.00
349	TBSC-H.III-52	MDF Board: exterior-Both Side Laminated -35 mm thick conforming to IS 15932	1 Sqm	1,642.00
IV	SUB-SECTION	CEMENT BONDED PLAIN & PARTICLE BOARDS		
350	TBSC-H.IV-01	Cement Bonded Board conforming to IS:14862-2000 - 4mm Thick	1 Sqm	175.00
351	TBSC-H.IV-02	Cement Bonded Board conforming to IS:14862-2000 - 6mm Thick	1 Sqm	250.00
352	TBSC-H.IV-03	Cement Bonded Board conforming to IS:14862-2000 - 8mm Thick	1 Sqm	320.00
353	TBSC-H.IV-04	Cement Bonded Board conforming to IS:14862-2000 - 10mm Thick	1 Sqm	367.00
354	TBSC-H.IV-05	Cement Bonded Board conforming to IS:14862-2000 - 12mm Thick	1 Sqm	459.00
355	TBSC-H.IV-06	Cement Bonded Board conforming to IS:14862-2000 - 14mm Thick	1 Sqm	512.00
356	TBSC-H.IV-07	Cement Bonded Board conforming to IS:14862-2000 - 16mm Thick	1 Sqm	582.00
357	TBSC-H.IV-08	Cement Bonded Board conforming to	1 Sqm	659.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		IS:14862-2000 - 18mm Thick		
358	TBSC-H.IV-09	Cement Bonded Board conforming to IS:14862-2000 - 20mm Thick	1 Sqm	698.00
359	TBSC-H.IV-10	Cement bonded particle board conforming to IS 14276-6 mm thick	1 Sqm	267.00
360	TBSC-H.IV-11	Cement bonded particle board conforming to IS 14276- 8 mm thick	1 Sqm	364.00
361	TBSC-H.IV-12	Cement bonded particle board conforming to IS 14276- 10 mm thick	1 Sqm	451.00
362	TBSC-H.IV-13	Cement bonded particle board conforming to IS 14276- 12 mm thick	1 Sqm	542.00
363	TBSC-H.IV-14	Cement bonded particle board conforming to IS 14276- 16 mm thick	1 Sqm	714.00
364	TBSC-H.IV-15	Cement bonded particle board conforming to IS 14276- 20 mm thick	1 Sqm	885.00
365	TBSC-H.IV-16	Cement bonded particle board conforming to IS 14276- 25 mm thick	1 Sqm	1,128.00
366	TBSC-H.IV-17	Cement bonded particle board conforming to IS 14276- 30 mm thick	1 Sqm	1,344.00
367	TBSC-H.IV-18	Cement bonded particle board conforming to IS 14276- 40 mm thick	1 Sqm	1,768.00
368	TBSC-H.IV-19	Pre-laminated cement bonded particle board- 6 mm thick	1 Sqm	630.00
369	TBSC-H.IV-20	Pre-laminated cement bonded particle board- 8 mm thick	1 Sqm	681.00
370	TBSC-H.IV-21	Pre-laminated cement bonded particle board- 10 mm thick	1 Sqm	730.00
371	TBSC-H.IV-22	Pre-laminated cement bonded particle board- 12 mm thick	1 Sqm	799.00
372	TBSC-H.IV-23	Pre-laminated cement bonded particle board- 16 mm thick	1 Sqm	888.00
373	TBSC-H.IV-24	50 mm thick SOLID WALL PANEL Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1,162.00
374	TBSC-H.IV-25	75 mm thick SOLID WALL PANEL Sandwich panels made of light weight FRACC non-asbestos fibre reinforced cement concrete	1 Sqm	1,395.00
J	SECTION	PLYWOODS, LAMINATES & VENEERS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	MOISTURE RESISTANT (MR) GRADE		
375	TBSC-J.I-01	3 Ply - 4 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	443.00
376	TBSC-J.I-02	5 Ply - 6 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	489.00
377	TBSC-J.I-03	5 Ply - 8 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	573.00
378	TBSC-J.I-04	5 Ply - 9 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	573.00
379	TBSC-J.I-05	9 Ply - 12 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	720.00
380	TBSC-J.I-06	9 Ply - 15 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	1,059.00
381	TBSC-J.I-07	9 Ply - 18 mm thick Plywood conforming to IS:303 MR Grade	1 Sqm	1,037.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
II	SUB-SECTION	BOILING WATER RESISTANT (BWR) GRADE		
382	TBSC-J.II-01	3 Ply - 4 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	507.00
383	TBSC-J.II-02	5 Ply - 6 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	593.00
384	TBSC-J.II-03	5 Ply - 8 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	737.00
385	TBSC-J.II-04	5 Ply - 9 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	698.00
386	TBSC-J.II-05	9 Ply - 12 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	912.00
387	TBSC-J.II-06	9 Ply - 15 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	1,307.00
388	TBSC-J.II-07	9 Ply - 19 mm thick Plywood conforming to IS:303 BWR Grade	1 Sqm	1,311.00
III	SUB-SECTION	VENEERED DECORATIVE PLYWOOD		
389	TBSC-J.III-01	3 Ply-4 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	655.00
390	TBSC-J.III-02	5 Ply - 6 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	851.00
391	TBSC-J.III-03	5 Ply - 9 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,091.00
392	TBSC-J.III-04	9 Ply - 12 mm thick One side Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,389.00
393	TBSC-J.III-05	5 Ply - 9 mm thick Both sides Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,423.00
394	TBSC-J.III-06	9 Ply - 12 mm thick Both sides Teak Veneered Decorative Plywood conforming to IS:1328	1 Sqm	1,659.00
IV	SUB-SECTION	LAMINATES		
395	TBSC-J.IV-01	Melamine Laminate Sheets - Glossy Finish: 1.00 mm thick	1 Sqm	438.00
396	TBSC-J.IV-02	Melamine Laminate Sheets - Glossy Finish: 1.50 mm thick	1 Sqm	628.00
397	TBSC-J.IV-03	Melamine Laminate Sheets - Glossy Finish: 1.80 mm thick	1 Sqm	689.00
398	TBSC-J.IV-04	Melamine Laminate Sheets - Mat Finish: 1.00 mm thick	1 Sqm	466.00
399	TBSC-J.IV-05	Melamine Laminate Sheets - Mat Finish: 1.50 mm thick	1 Sqm	648.00
400	TBSC-J.IV-06	Melamine Laminate Sheets - Mat Finish: 1.80 mm thick	1 Sqm	698.00
401	TBSC-J.IV-07	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 6 mm thickness for exterior elevation	1 Sqm	3,732.00
402	TBSC-J.IV-08	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 12 mm thickness for any application	1 Sqm	4,870.00
403	TBSC-J.IV-09	HIGH PRESSURE LAMINATES - HPL Compact Laminates of 8 mm thickness for any application	1 Sqm	3,863.00
V	SUB-SECTION	COMMERCIAL VENEERS		
404	TBSC-J.V-01	Teak Veneer Lamination of 4 mm thick with Pencil Grains conforming to IS 14315	1 Sqm	490.00
405	TBSC-J.V-02	Teak Veneer Lamination of 4 mm thick with Natural Grains conforming to IS 14315	1 Sqm	900.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
VI	SUB-SECTION	NATURAL FIBRE COMPOSITE BOARDS		
		Single extruded Natural Fibre Composite (NFC) board comprising of Natural Fibres derived from agri residuals like rice husk and stalk, non toxic natural minerals like calcium carbonate, fillers, processing additives, lubricants and heat stabilisers - bonded with Polyvinyl Chloride resin, having minimum density of 700 Kg/CBM, screw withdrawal strength of 1800 N (Face) and 900 N (edge), minimum compressive strength 40 MPA, modulus of elasticity 1000 N/mm ² and resistance to spread of flame as per Class 1/A category with ever lasting property of being termite/borer proof, water proof and flame retardant, smoke suppressant		
406	TBSC-J.VI-01	Thickness 6mm of minimum density 700 Kg/cum	1 Sqm	1,104.00
407	TBSC-J.VI-02	Thickness 8mm of minimum density 700 Kg/cum	1 Sqm	1,379.00
408	TBSC-J.VI-03	Thickness 12mm of minimum density 700 Kg/cum	1 Sqm	1,678.00
409	TBSC-J.VI-04	Thickness 15mm of minimum density 700 Kg/cum	1 Sqm	2,058.00
410	TBSC-J.VI-05	Thickness 16mm of minimum density 700 Kg/cum	1 Sqm	2,219.00
411	TBSC-J.VI-06	Thickness 18mm of minimum density 700 Kg/cum	1 Sqm	2,379.00
412	TBSC-J.VI-07	Thickness 20mm of minimum density 700 Kg/cum	1 Sqm	2,724.00
413	TBSC-J.VI-08	Thickness 25mm of minimum density 700 Kg/cum	1 Sqm	3,598.00
414	TBSC-J.VI-09	Thickness 30mm of minimum density 700 Kg/cum	1 Sqm	4,310.00
415	TBSC-J.VI-10	Thickness 6mm of minimum density 800 Kg/cum	1 Sqm	1,242.00
416	TBSC-J.VI-11	Thickness 8mm of minimum density 800 Kg/cum	1 Sqm	1,553.00
417	TBSC-J.VI-12	Thickness 12mm of minimum density 800 Kg/cum	1 Sqm	1,879.00
418	TBSC-J.VI-13	Thickness 15mm of minimum density 800 Kg/cum	1 Sqm	2,299.00
419	TBSC-J.VI-14	Thickness 16mm of minimum density 800 Kg/cum	1 Sqm	2,483.00
420	TBSC-J.VI-15	Thickness 18mm of minimum density 800 Kg/cum	1 Sqm	2,667.00
421	TBSC-J.VI-16	Thickness 20mm of minimum density 800 Kg/cum	1 Sqm	3,057.00
422	TBSC-J.VI-17	Thickness 25mm of minimum density 800 Kg/cum	1 Sqm	4,028.00
423	TBSC-J.VI-18	Thickness 30mm of minimum density 800 Kg/cum	1 Sqm	4,827.00
K	SECTION	CEILINGS, WALL PARTITIONS & WALL LININGS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
I	SUB-SECTION	FALSE CEILINGs - TILES/ SHEETS		
424	TBSC-K.I-01	Gypsum Board tiles of size not less than 0.595 M x 0.595 M of 12.5 mm thick as per IS 2095 - 1992	1 Sqm	307.00
425	TBSC-K.I-02	Gypsum Board tiles of size not less than 0.595 M x 0.595 M of 9 mm thick as per IS 2095 - 1992	1 Sqm	299.00
426	TBSC-K.I-03	Gypsum Board Plain sheet 12.5 mm thick as per IS 2095 -1993	1 Sqm	272.00
427	TBSC-K.I-04	DELETED		Deleted
428	TBSC-K.I-05	14 mm - Mineral Fibre sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 90% RH, Average NRC 0.50, Light Reflectance >80%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	640.00
429	TBSC-K.I-06	15 mm - Mineral Fibre sheet 600 x 600 of Board / Tegular Edge tiles with a Humidity Resistance of 95% RH, Average NRC 0.50, Light Reflectance >85%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	750.00
430	TBSC-K.I-07	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.60, Light Reflectance >85%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	806.00
431	TBSC-K.I-08	Designer ceiling Cement Boards -thickness 3.2 mm	1 Sqm	282.00
432	TBSC-K.I-09	High pressure steam cured Cement Boards 4 mm thick	1 Sqm	153.00
433	TBSC-K.I-10	High pressure steam cured Cement Boards 6 mm thick	1 Sqm	227.00
434	TBSC-K.I-11	High pressure steam cured Cement Boards 8 mm thick	1 Sqm	302.00
435	TBSC-K.I-12	High pressure steam cured Cement Boards 10 mm thick	1 Sqm	377.00
436	TBSC-K.I-13	High pressure steam cured Cement Boards 12 mm thick	1 Sqm	451.00
437	TBSC-K.I-14	High pressure steam cured Cement Boards 14 mm thick	1 Sqm	525.00
438	TBSC-K.I-15	High pressure steam cured Cement Boards 16 mm thick	1 Sqm	603.00
439	TBSC-K.I-16	High pressure steam cured Cement Boards 18 mm thick	1 Sqm	676.00
440	TBSC-K.I-17	High pressure steam cured Cement Boards 20 mm thick	1 Sqm	752.00
441	TBSC-K.I-18	High pressure steam cured designer Cement Boards 4 mm thick	1 Sqm	223.00
442	TBSC-K.I-19	High pressure steam cured designer Cement Boards 6 mm thick	1 Sqm	327.00
443	TBSC-K.I-20	Calcium Silicate Boards - 6mm thick	1 Sqm	252.00
444	TBSC-K.I-21	Calcium Silicate Boards - 8mm thick	1 Sqm	334.00
445	TBSC-K.I-22	Calcium Silicate Boards - 10mm thick	1 Sqm	419.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
446	TBSC-K.I-23	Calcium Silicate Boards - 12mm thick	1 Sqm	500.00
447	TBSC-K.I-24	Supply of Thermocol 12 mm thick sheets	1 Sqm	31.00
448	TBSC-K.I-25	Supply of Thermocol 19 mm thick sheets	1 Sqm	52.00
449	TBSC-K.I-26	Supplying and fixing of false ceiling using Plaster of Paris Boards 12 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	488.00
450	TBSC-K.I-27	Supplying and fixing of false ceiling using Plaster of Paris Boards 10 mm thick with standard GI ceiling angles, sections perimeter channels including cost and conveyance of all materials and labour charges etc complete	1 Sqm	408.00
451	TBSC-K.I-28	Supply and fixing false ceiling using 8 mm thick Cement Bonded particle boards conforming to IS 14276 with galvanized and pre painted steel T section of size 24mm x 38mm x 0.3 mm for main T duty pre punched to accept cross T section of size 24mm x 30mm x 0.3 mm duly punched at both ends for insertion into main T. The grid size will be 610mm x 610mm. The frame work (grid) is suspended to the roof by using G.I flat of 0.60mm or 14-gauge G.I wire with necessary fixers to the roof and frame work the cost is inclusive of necessary hardware, labour, one coat of primer (Both side) and two coats of smooth finish on visible side.	1 Sqm	1,389.00
452	TBSC-K.I-29	Providing and fixing false ceiling consisting of 600 mm x 600 mm, Solid PVC insulation panels having wall thickness of 1mm thick plain PVC rigid foam sheet and EPS as defined in of desired thickness depending on insulation required shall be insert in a frame work made using anodized aluminium Tee section of sizes 1"X1" (25X25mm, 19 gauge or 1mm thick) in square pattern of grid sizes of 2'X2' (600X600mm). The aluminium framework is supported from the ceiling with the help of G.I. hook and G.I. wire/6mm.M.S. rods of required sizes to maintain proper level etc. the aluminium framework is supported on side wall with the use of aluminium 1"X1" (25X25mm) angles, complete as per direction of Engineer-in-Charge & drawing	1 Sqm	1,512.00
453	TBSC-K.I-30	Supply and fixing of PVC false ceiling on MS/GI made skeleton framework. The frame shall be 24 X 48mm MS tube section fixed along with the wall. The entire frame work shall be concealed with PVC section having overall dimensions of 6 X 250 mm with a wall thickness of 1mm ± 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, complete, for finished item of work.	1 Sqm	1,656.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
454	TBSC-K.I-31	15 mm - Micro Look Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 95% RH, Average NRC 0.90, Light Reflectance >88%, Thermal Conductivity $\lambda = 0.032$ w/mk, Fire Performance Class 0/Class 1 suitable for Green Building application, with Recycled content of 88% (FG)	1 Sqm	1,708.00
455	TBSC-K.I-32	16 mm - Tegular Edge 600 x 600 of Board / Tegular/ Micro look Edge tiles with a Humidity Resistance of 99% RH, Average NRC 0.55, Light Reflectance >84%, Thermal Conductivity $\lambda = 0.052$ to 0.057 w/mk, Fire Performance Class 0/Class 1	1 Sqm	758.00
456	TBSC-K.I-33	Providing & Fixing of Lay-in-metal plain ceiling System consisting of 600 x 600mm Lay in GI tiles of pre coated galvanized steel in 0.5 mm thickness in white colour to be laid on grid systems with 15mm wide T - section flanges but excluding cost of Grid systems complete for finished item of work	1 Sqm	824.00
457	TBSC-K.I-34	Providing & Fixing of GI Lay in Standard Perforated(2.5mm diameter-16% open area) metal ceiling consisting of 600 x 600 mm Lay in tiles of pre coated galvanized steel in 0.5 mm thickness in Global white color acoustical fleece hot pressed to the back of the perforated tile to be laid on grid systems with 0.5 mm thickness in white colour with 15mm wide T - section flanges but excluding cost of Grid systems and having rotary stitching on the Main Runner, 1200 mm & 600 mm Cross Tees and the tiles with NRC of 0.70, Fire Performance of Class A2-s1.d0 as per EN13501 standard in module size of 600 X 600 mm suitable for Green Building application, with Recycled content of 25% complete for finished item of work	1 Sqm	1,182.00
		Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.50 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3000mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm center to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge		
458	TBSC-K.I-35	GRG (Glass Fibre Reinforced Gypsum) false ceiling with fully perforated 10mm thick square edged GRG false ceiling tiles	1 Sqm	1,867.00
459	TBSC-K.I-36	GRG (Glass Fibre Reinforced Gypsum) false ceiling with semi perforated 12mm thick micro tegular edged GRG false ceiling tiles	1 Sqm	1,790.00
460	TBSC-K.I-37	Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.60 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal silhouette T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3600mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm center to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge with semi perforated 12mm thick micro tegular edged GRG false ceiling tiles	1 Sqm	1,972.00
461	TBSC-K.I-38	Providing and fixing false ceiling at all heights with 15mm thick eco friendly integral densified Board/tegular edged light weight calcium silicate false ceiling tiles having non	1 Sqm	1,894.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		cementitious calcium silicate reinforced with fibers and natural fillers with recycled content of more than 50%. False ceiling tile of size 595x595 mm of approved texture, design and patterns having NRC i.e. Noise reduction coefficient of 0.1 to 0.12 for plain and designer range of tiles HEXA/QUADRA and 0.5 to 0.75 for semi perforated and fully perforated tiles SPINTONE/COSMOS/GLOBE, Light reflectance of 85% minimum Nom combustible as per BS 476 part 4, Fire performance as per BS 476 Part 6 & 7, Relative humidity Resistance of 100%, thermal conductivity of 0.048 W/m.K to 0.050 W/m.K as per IS 3346/1980. The tile shall have average body density of 350 kg/m ³ as per ECBC code 2007 and average edge density of 450kg/m ³ the tile shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33mm thick galvanized @ 120 grams per sqm including both sides comprising of main T runners of size 24x38mm of length 3600mm cross T of size 24x32mm of length 1200mm and cross T of size 24x32mm of length 600mm to form grid module of size 600x600mm suspended from ceiling GI slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanized steel level clips of size 85x30x0.8mm spaced 1200mm centre to centre along main T bottom exposed with 24mm of all T sections wall angle of size 24x24x0.40mm of length 3000mm to be fixed on periphery wall/partition with the help of plastic rawl plugs at 450 with 15mm thick integral densified tegular edged light weight calcium silicate false ceiling tiles		
462	TBSC-K.I-39	Providing and fixing false ceiling at all heights with 15mm thick eco friendly integral densified Board/tegular edged light weight calcium silicate false ceiling tiles having non cementitious calcium silicate reinforced with fibers and natural fillers with recycled content of more than 50%. False ceiling tile of size 595x595 mm of approved texture, design and patterns having NRC i.e. Noise reduction coefficient of 0.1 to 0.15 for plain and designer range of tiles HEXA/QUADRA and 0.5 to 0.75 for semi perforated and fully perforated tiles SPINTONE/COSMOS/GLOBE, Light reflectance of 85% minimum Nom	1 Sqm	2,141.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		combustible as per BS 476 part 4, Fire performance as per BS 476 Part 6 & 7, Relative humidity Resistance of 100%, thermal conductivity of 0.048 W/m.K to 0.050 W/m.K as per IS 3346/1980. The tile shall have average body density of 350 kg/m ³ as per ECBC code 2007 and average edge density of 450kg/m ³ the tile shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized mild steel powder coated section of 0.40 mm thick silhouetted white/black profile compiling main T runners of size 42x15mm of length 3600mm cross T of size 42x15mm of length 1200mm and cross T of size 42x15mm of length 600mm to form grid module of size 600x600mm suspended from ceiling GI slotted cleats of size 25x35x1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanized steel level clips of size 85x30x0.8mm spaced 1200mm centre to centre along main T bottom exposed with 24mm of all T sections wall angle of size 22x19x0.40mm of length 3000mm to be fixed on periphery wall/partition with the help of plastic rawl plugs at 450 with 15mm thick integral densified tegular edged light weight calcium silicate false ceiling tiles		
463	TBSC-K.I-40	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 4mm thick High pressure steam cured non-asbestos fibre cement standard ceiling board density>1299 kg/m ³ , Modulus of rupture - 15.85 Mpa,	1 Sqm	1,269.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge		
464	TBSC-K.I-41	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 6mm thick High pressure steam cured non-asbestos fibre cement standard ceiling board density>1299 kg/m ³ , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	1,456.00
465	TBSC-K.I-42	Providing and fixing of false ceiling with powder coated exposed GI grid suspension system E Grid T 2430 or equivalent load carrying capacity with mid span deflection not exceeding 1/360 span with hanger spacing of 1200mm c/c consisting of main runner 3600mm long, Cross Tee 1200mm/60mm long and wall angle. The wall angle shall be fixed on PVC dash fasteners on the perimeter of the wall by steel screws with distance 300mm c/c, The main runners to be placed @ 1200mm, Cross tee 1200mm will be inserted in the pre-cut slots of main runner at a regular interval of 600mm to form a modular grid of 1200mm x 600mm. Additional cross tees of 600mm shall be	1 Sqm	1,672.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		placed perpendicular to the cross tee 1200mm long to finally form a grid of 600mm x 600mm. Grid of module size 600mmx600mm shall be supported by 3mm dia GI wire from purlins/soffit. 6mm thick High pressure steam cured non-asbestos fibre cement designer ceiling board density>1299 kg/m ³ , Modulus of rupture - 15.85 Mpa, Thermal conductivity - 0.0872 W/mK of size 595mm x 595mm confirming to IS 14862 and Type B category III of ISO 8336:1993, reaction to fire A2s1d0 tested as per EN13501 Part I and BS 476 part 4,5,6&7 should be placed in the Grid module to form a false ceiling. All complete as per drawing and directions of Engineer-in-Charge		
466	TBSC-K.I-43	Providing & Fixing of Armstrong Mineral Fibre Acoustical Suspended Ceiling System with 16mm thick Bioguard plain Bevelled Tegular Edge Tiles with Armstrong Suprafine 15mm face exposed grid. The tiles shall have smooth bright visual with Humidity Resistance (RH) of 99%, NRC 0.15 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423 standard, CAC of 35db as per ASTM E1414, Light Reflectance ≥89% as per ASTM E-1477, Thermal Conductivity k = 0.052 - 0.057 W/mK, Colour Global White, Fire Performance of Class 0/1 as per BS 476 Part6/7 and Class A as per ASTM E 84 with 16mm bevelled tegular edge and 8mm drop in module size of 600 x 600mm. The scrim on the face of the tile shall be cleanable, washable up to 150 cycle as per ASTM D-4828 and resistant to disinfectants. The tile shall be treated with Anti Microbial coating on the face and wax coating on the back to resist permeability. Tiles to be tested for antimicrobial activity having “total inhibition” as per TNO Seed Layer test & “inhibition” as per Kirby Bauer agar diffusion test (excluding Pseudomonas Aeruginosa) and efficacy greater than 2 as per JIS-Z 2801-2010.It shall be suitable for Green Building application, with Recycled content of 37%. The tile shall have certifications from GRIHA and GreenPro thereby confirming that it is an environment friendly product. <u>SUSPENSION:</u> The tile shall be laid on Armstrong Suprafine 32 with 15 mm wide T - section flanges colour global white (matching to tile color) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm & 600 mm Cross Tees with	1 Sqm	1,380.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		a web height of 32mm (all sections). The deflection loading of the system shall be 10.5 kg/m² (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 8.8 kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between “cross tee to cross tee” and “cross tee to main beam”. All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. All border cross tee/main beam shall be levelled using perimeter fill. The Tile & Grid system used together shall carry a 30 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile & Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate. <u>INSTALLATION:</u> To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure. SUSPENSION SYSTEM accessories consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
467	TBSC-K.I-44	Providing & Fixing horizontal level suspended ceiling comprising of Armstrong GI Bioguard	1 Sqm	2,060.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Clip-in Plain Tile 600x600mm (Nominal Size) tiles of 120 gsm galvanized steel as per IS 277 (2003) suitable for architectural finishes in 0.5mm thickness as per in IS:513 (1994) in Global white color with concealed suspension system having a bevelled edge of 3x3mm and height of 33mm on one side and 18mm on the other side. Tiles shall be flattened by precision leveller to minimize sag to less than 1/400mm. The tiles shall have double round pip of ϕ 2mm and ϕ 6mm for secure engagement and levelling respectively, along with swing down feature and special tabs to allow removal of tile to enable plenum access. The coated surface of the tile shall exhibit anti-microbial properties (eradication and inhibition of growth) and shall achieve up to 99.99% reduction in bacterial activity as per ISO22196:2011 when tested for organisms: Escherichia Coli, Bacillus Subtilis, Pseudomonas Aeruginosa, Clostridium Perfringens, Enterococcus Faecalis, Staphylococcus Aureus, Salmonella Enterica, Streptococcus Faecalis and MRSA. The coated surface of the tile shall also exhibit fungal resistance properties and shall achieve a "Rating 0" (No fungal growth observed) as per ASTM G-21 when tested for Aspergillus Brasilliensis, Penicillium Pinophilum and Candida Albicans. The tile shall be electrostatically polyester powder coated using RoHS compliant powder having coating thickness ranging from 60-80 microns. The powder coating shall pass Salt Spray Test for 750 Hours as per ASTM B117, QUV -A Test for 1000hours as per ASTM G-154 - (Cycle - 1) and Humidity test for 1000hours as per DIN 50017. The powder coating shall have an adhesion of GT0 as per EN ISO 2409. The shade variation across batches shall be delta E<1 using Excite/BYK Gardner instrument and gloss level of 25±5% at 60° as per ASTM D523. The tile shall have scratch, mar & abrasive resistance properties. The tile shall have a Light Reflectance of $\geq$ 63% in accordance to ASTM 1477-98 and Fire Performance of class 0/1 as per BS 476 Part 6 & 7 in module size of 600x600mm. SUSPENSION & INSTALLATION: Shall comprise of 3000mm long 'C' channels of 38H x 12W mm and 1mm thick spaced at 1200mm centre to centre securely fixed to the structural soffit using threaded rod (Approved make/Third Party Supply) connecting to C-channel hanger of 109x18.5x16.5mm at 1200mm C/C and anchor fastener (Approved		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		make/Third Party Supply). The last hanger at the end of each C-channel shall not be greater than 600mm from the adjacent wall. Use a C-channel connector of 99.5x35x 9mm for splicing together two pieces of C-channels. 4000mm DP-12 main carriers (Clip-in bar) of 16W x 40H mm and 0.6mm thick made of galvanized steel of 140gsm as IS 277 (2003) and shall be spaced at 600mm centre to centre in a direction perpendicular to the C-channels and secured at every intersection with C-channel using a DP-12 hanger (Clip-in bar hanger) of 54x18x20mm. Use DP-12 connector (Clip-in bar connector) to splice two pieces of DP-12 main carriers (Clip-in bar). Tiles shall be clipped in between two DP-12 carriers (Clip-in bars) from below. Optionally - Security clip to be installed to ensure the panels are positively engaged with DP12 channel (Clip-in bar channel). Installation shall be carried out as per Armstrong recommended procedure. Perimeter to be finished using Armstrong wall angles of size 3000x19x32mm in white color secured to walls using screws at 450mm centre to centre. Cut tiles to be secured to the wall angles using a spring clamp. The Tile & Grid system used together shall carry a 10 year warranty against manufacturing defect and manufacturer shall provide a warranty certificate. The Tile & Grid shall have the manufacturers name embossed/printed on it. The supply shall be backed by a Manufacturing Test Certificate.		
468	TBSC-K.I-45	Providing and fixing Knauf Heradesign Superfine, 1 layer magnesite bonded wood wool acoustic panel, 1mm thick fibre, exquisite surface structure, building biology recommended, size 600 x 600 x 25mm, having edge detail SK-06, weight 11.30Kg/Sqm, fire protection class B-s1,d0 as per EN 13501-1 & Humidity Resistance of 95%. Thickness Tolerance T2 (± 1 mm) according to EN 13168. Wood wool panels to be PEFC certified & should bear the Forest Stewardship Council Seal confirming that the wood used originates from responsibly managed forests. The wood wool panels to be laid in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 90 gsm/sqm) consisting of Main "Tee", size 24W x 38H x 3600L mm made from 0.30 mm thick sheet spaced at 600mm centre to centre and Cross "Tee", size 24W x 28H x 600L mm made of 0.30 mm thick sheet to be interlocked	1 Sqm	3,537.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		between the main T runners at the distance of 600mm centre to centre to create 600x600mm module to lay ceiling tiles of approved surface pattern in the grid including, wherever required, cutting / making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. The perimeter trims to be of 22W x 19H x 3000L mm and 0.50 mm thick. Main "Tees" to be suspended from ceiling using 6mm dia and 50mm long anchor fasteners, Knauf SoH suspension hangers consisting of 4mm GI adjustable rods with galvanized level clips spaced at 900mm centre to centre along the Main Tee. The 4.00mm GI rods should be in accordance to IS 280:2006 and should have a zinc coating of not less than 90 gsm in accordance with IS 4826:1986 and a tensile strength of 300-550 MPa in accordance to IS 1608:2005. The first suspension from the perimeter trim should not exceed 300mm. The bottom exposed width of 24mm of all T-sections shall be pre-painted with polyester paint. The wood wool board should be backed by 40mm thick rock wool slabs packed in 600 x 600 polythene bags having a gross density of 50kg/m³. The finished face of wood wool panels have to be installed at a distance of 300mm from the soffit to achieve a NRC of 0.90 as per ASTM C423. Panels can be spray painted on site under supervision of manufacturer. <u>SUSPENSION:</u> The tile shall be laid on Armstrong Prelude 38 with 24 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 15 kg/m² (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 18kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability.		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		INSTALLATION: To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure. ARMSTRONG SUSPENSION SYSTEM accessories supplied by Armstrong consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
469	TBSC-K.I-46	Providing and fixing Knauf Heradesign Superfine, 1 layer magnesite bonded wood wool acoustic panel, 1mm thick fibre, exquisite surface structure, building biology recommended, size 600 x 600 x 15mm, having edge detail SK-04, weight 11.3 Kg/Sqm, fire protection class B-s1,d0 as per EN 13501-1 & Humidity Resistance of 95%. Thickness Tolerance T2 (± 1 mm) according to EN 13168. Wood wool panels to be PEFC certified & should bear the Forest Stewardship Council Seal confirming that the wood used originates from responsibly managed forests. The wood wool panels to be laid in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanized @ 90 gsm/sqm) consisting of Main "Tee", size 24W x 38H x 3600L mm made from 0.30 mm thick sheet spaced at 600mm centre to centre and Cross "Tee", size 24W x 28H x 600L mm made of 0.30 mm thick sheet to be interlocked between the main T runners at the distance of 1200mm centre to centre to create 1200x600mm module to lay ceiling tiles of approved surface pattern in the grid including, wherever required, cutting /	1 Sqm	3,720.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. The perimeter trims to be of 22W x 19H x 3000L mm and 0.50 mm thick. Main "Tees" to be suspended from ceiling using 6mm dia and 50mm long anchor fasteners, Knauf SoH suspension hangers consisting of 4mm GI adjustable rods with galvanized level clips spaced at 900mm centre to centre along the Main Tee. The 4.00mm GI rods should be in accordance to IS 280:2006 and should have a zinc coating of not less than 90 gsm in accordance with IS 4826:1986 and a tensile strength of 300-550 MPa in accordance to IS 1608:2005. The first suspension from the perimeter trim should not exceed 300mm. The bottom exposed width of 24mm of all T-sections shall be pre-painted with polyester paint. The wood wool board should be backed by 40mm thick rock wool slabs packed in 600 x 600 polythene bags having a gross density of 50kg/m³. The finished face of wood wool panels have to be installed at a distance of 300mm from the soffit to achieve a NRC of 0.90 as per ASTM C423. Panels can be spray painted on site under supervision of manufacturer. <u>SUSPENSION:</u> The tile shall be laid on Armstrong Prelude 38 with 24 mm wide T - section flanges colour global white (matching to tile colour) having roll formed double stroke rotary stitching on all T sections i.e. the Main Runner, 1200 mm & 600 mm Cross Tees with a web height of 38mm (all sections). The deflection loading of the system shall be 15 kg/m² (as per standard installation layout mentioned below) and main beam tested as per ASTM C635 (Deflection limit less than L/360) with a deflection loading of 18kg/m. The end details of the cross tee shall be made of pre hardened steel and fixed to the ends of the cross tee to provide double locking between "cross tee to cross tee" and "cross tee to main beam". All main beam to main beam and cross tee to cross tee connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 90 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. <u>INSTALLATION:</u> To comprise main runner spaced at 1200mm securely fixed to the structural soffit using Armstrong suspension system (specifications above) at 1200mm maximum. The First/Last Armstrong		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		suspension system at the end of each main runner shall not be greater than 450mm from the adjacent wall along with the first and the last main beam shall be at less than 600mm from the wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm module to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200 mm cross tees. Perimeter trim to be Armstrong wall angles of size 3000x19x19mm, secured to walls using screws at 450mm centre to centre maximum. Installation shall be carried out as per Armstrong recommended procedure. ARMSTRONG SUSPENSION SYSTEM accessories supplied by Armstrong consisting of M6 Anchor Fasteners with hanger hole, pre-straightened hanger wire of dia - 2.5 mm of 1.80 m length having a tensile strength of 344-413 MPa and a minimum loading strength of 110 kgs.		
470	TBSC-K.I-47	Supply of Moisture Resistant Gypsum Board of 12.5 mm thickness with < 5% Total Water Absorption and < 180 g/m ² Surface Water Absorption	1 Sqm	464.00
471	TBSC-K.I-48	Supply and installation of Clip-in false ceiling system using GI Metal perforated panels powder coated 60 microns (Size: 600 x 600 x 0.5mm) of approved shade. The panels must conform to ASTM E84 & BS 476 part 7 (for surface burning characteristics), BS 8290-2 (for dimensional tolerance), Clip-in frame system shall consist of intermediate C Channels (3000mm) and a clip-in profile (3000mm), Clip holders using clips and clip-in wall angles (20x30x3000), C channel connectors and holders, clip-in connectors, G.I M6 threaded rods (mechanically anchored to the RCC Slab), G.I M6 washers & nuts. Clip-in false ceiling system shall be installed using ASTM C636 standards. Includes cost and conveyance of materials like G.I metal panels, required sections for clip-in framework systems, clips, screws, washer & nuts, labour charges, lift charges, stage scaffolding charges, all incidentals, as per the instruction of the Engineer-in-charge.	1 Sqm	7,730.00
472	TBSC-K.I-49	Supply and Fixing of unperforated Aluminium false ceiling of size 300mm wide x 30mm deep x 0.7 mm thick with bevel edges of approved design & colour. Panels shall be clipped to a baked aluminium carrier of 41.5mm wide x 62mm deep x 0.95mm thick	1 Sqm	7,421.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		in standard length of 5 meters, made of double baked black enamelled aluminium alloy AA 5050 (Al. Mg), the panel carrier shall be suspended by means of 6mm threaded rod which is mechanically anchored to the RCC Slab. Aluminium wall angles shall be provided at the edges of the false ceiling. The Aluminium panels shall be chromatised for the maximum bond between metal and pain enamel twice under high temperature, one side with a complete primer and finish coat, the inner side with a primer coating and skin coat on a continuous paint line. Including the cost of conveyance of all materials like false ceiling panels, materials for false ceiling framework system, consumables, lift charges, scaffolding charges, incidentals, as per the instructions of the Engineer-in-charge		
473	TBSC-K.I-50	Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.50 to 0.75 as per IS 8225:1987, Noncombustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3000mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm centre to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge With semi perforated 12mm thick Micro Tegular edged GRG false ceiling having unique Antimicrobial shield to protect from Bacteria as per JIS-z 2801 and designed to prevent fungal growth. Providing and fixing false ceiling at all heights with GRG (Glass Fibre Reinforced	1 Sqm	2,386.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Gypsum) false ceiling tiles of size 595 x 595 mm of approved texture, design and patterns having moisture content less than 2% humidity resistance of 99%, NRC 0.50 to 0.75 as per IS 8225:1987, Noncombustible as per BS 476 part 4 1970 and light reflectance of 85% minimum to be laid in true horizontal level suspended on inter locking metal T grid of hot dipped galvanized iron section of 0.33 mm thick galvanized @ 120 gms per sqm including both sides, comprising of main T runners of size 15x32mm of length 3000mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32mm of length 600mm to form grid module of size 600 x 600mm suspended from ceiling using galvanized mild steel items galvanizing @ 80 grams per sqm i.e. 50mm long, 8mm outer diameter, M-6 dash fasteners, 6mm dia fully threaded hanger rod up to 1000mm length and L shape level adjuster of size 85x25x2 mm. Galvanized iron permitter wall angle of size 24x24x0.40mm of length 3000mm to fixed on periphery wall/partition with help of plastic rawl plugs at 450mm centre to centre and 40mm long dry wall SS screws. The work shall be carried out as per specifications, drawing and as per directions of Engineer-in-Charge With semi perforated 12mm thick Micro Tegular edged GRG false ceiling having unique Antimicrobial shield to protect from Bacteria as per JIS-z 2801 and designed to prevent fungal growth.		
474	TBSC-K.I-51	Providing and fixing of Anti-Microbial Bio-safe coated 15mm thick Integral Densified Tegular/Butt edged Eco friendly Lightweight Calcium silicate suspended Ceiling system in Module size of 600x600mm with exposed GI plain T24 Grid for Hospitals, ICU Rooms, Institutions, Laboratories, Health Care Units, Offices. The Tiles should have Anti Microbial Bio safe coating on front and back sides of tiles conforming to JIS0Z2801 and ASTM G-21 standard by NABL accredited labs and found to be completely protected from Bacteria, Fungi, Yest and Mould when exposed to these organisms both room temperature and AC temperature. Tiles should be protected and free from colony-forming units The tiles should have Humidity resistance RH of 100% Non combustible as per BS 476 Part-4, Fire performance as per BS 476 Part 6 for Fire propagation for Surface spread of Flame, Thermal conductivity K = 0.048 to 0.050 w/m	1 Sqm	2,345.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		K as per ECBC code 2007, Sound attenuation (STA) 30-32dB, Thickness of tile should be 1533 thick with 450kg/m ³ density all around on edge resting portion with Integral Densified edge and 10mm thick with 350kg/m ³ density in the center of the body, Light reflectance > 85%, Weight of material is 5-5.5 kg/m ² and suitable for Green building application with inorganic recycled content of 46-50% out of which 18-20% should be Fly ash and meets the GRIHA and SVAGRIHA norms under the categories : GRIHA V.2015 criterion 11&12, GRIHA V3. Criterion : 17&29 and SVAGRIHA criterion : 12. The tile shall be primer coated on both sides and the fair surface shall be having a factory finish in two coats of white dispersion type solvent free paint		
II	SUB-SECTION	FALSE CEILINGs - SECTIONS & ACCESSORIES		
475	TBSC-K.II-01	G.I. Ceiling Angle - 25 mm x 10 mm x 0.55 mm	1 RM	82.00
476	TBSC-K.II-02	G.I. Ceiling Section 51.5 mm x 26 mm x 10.5 mm x 0.55 mm thick	1 RM	95.00
477	TBSC-K.II-03	G.I. intermediate Section 45 mm x 15 mm x 15 mm x 0.9 mm	1 RM	94.00
478	TBSC-K.II-04	G.I. Perimeter Channel - 20 mm x 27 mm x 30 mm (web) of 0.55 mm thick	1 RM	82.00
479	TBSC-K.II-05	G.I.-Precoated Fine line Grid 25 mm x 25 mm x 0.7 mm	1 RM	47.00
480	TBSC-K.II-06	G.I.-Precoated Fine line Grid 15 mm x 25 mm x 0.7 mm	1 RM	43.00
481	TBSC-K.II-07	GI - Precoated - T-Sec- 24 mm x 38 mm x 0.7 mm thick	1 RM	62.00
482	TBSC-K.II-08	Hot dipped GI Angle - Precoated - Grid: 19 mm x 19 mm	1 RM	46.00
483	TBSC-K.II-09	Polyester painted GI - T Section - 24 x 32 mm	1 RM	56.00
484	TBSC-K.II-10	Polyester painted GI - T Section - 24 x 25 mm	1 RM	51.00
485	TBSC-K.II-11	Polyester painted GI - T Section - 24 mm x 27 mm	1 RM	52.00
486	TBSC-K.II-12	Aluminium Angle : 24 mm x 24 mm	1 RM	32.00
487	TBSC-K.II-13	Anodized Aluminium T Section : 24 x 24.5 x 2.4 mm	1 RM	40.00
488	TBSC-K.II-14	Connecting Clips	1 Each	7.00
489	TBSC-K.II-15	Rawl Plug	1 Each	7.00
490	TBSC-K.II-16	6 mm Nylon Rawl Plug	1 Each	7.00
491	TBSC-K.II-17	Soffit Cleats	1 Each	7.00
492	TBSC-K.II-18	Drywall Screws - 25 mm	1 Each	7.00
493	TBSC-K.II-19	Jointing Compound	1 Kgs	35.00
494	TBSC-K.II-20	Jointing Paper Tape	1 RM	9.00
495	TBSC-K.II-21	Drywall Top Coat	1 Lit	156.00
496	TBSC-K.II-22	Universal Holding Clips	1 Each	7.00
497	TBSC-K.II-23	4 mm Diameter GI Connecting Rod	1 RM	15.00
498	TBSC-K.II-24	2 mm Diameter GI Connecting Rod	1 RM	14.00
III	SUB-SECTION	WALL LINING & PANELLING		
499	TBSC-K.III-01	Providing wooden paneling 12 mm thick	1 Sqm	1,998.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		prelaminated particle board fixed on wooden frame of BT wood size 50.8 mm x 25.4 mm (2"x1") at distance of 609.6mm (2'-0") intervals of both ways providing 3/4" x 1/2" (19.05 mm x 12.7 mm) size BT wood ornamental cover beading and necessary screws, synthetic glue complete for finished item of work.		
500	TBSC-K.III-02	Providing and fixing perforated wall panels channeled wood works panels/ sheets of width 192 mm, thickness of 15 mm and length 2400 mm made of a moisture resistant fibre board substrate with a laminated facing as per the approved shade/ species & finish and a melamine balancing layer on the reverse side, with a special perforation pattern of helm holtz fluted perforation with consecutive 3 mm wide grooves followed by 21 mm of visible surface with edges of panel shall be tongue and groove fitting to fix special clips for installation and seamless finish, the back of the panel shall have hot pressed acoustic fleece to absorb noise/ sound absorbing to achieve NRC of 0.5 as per ASTM C423 and humidity resistance with minimum sag resistance of RH70, and a fire rating class of 2 as per Part 7 of BS 476	1 Sqm	3,856.00
501	TBSC-K.III-03	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: using 8mmthick Calcium silicate boards	1 Sqm	846.00
502	TBSC-K.III-04	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 10mm thick Calcium silicate boards	1 Sqm	931.00
503	TBSC-K.III-05	Supply and fixing of wall lining fixing to GI channels of perimeter channel 30mm x 27mm x 0.55 thick and ceiling channels of 51.1mm x 26mm x 10.5mm x 0.55mm thick and fixing and finishing using joint compound and glass fibre tape complete finish as per specification without painting for finished item of work: Using 12mm thick Calcium silicate boards	1 Sqm	1,016.00
504	TBSC-K.III-06	Supply and fixing of cement board (conforming to IS:14862:2000) wall paneling	1 Sqm	1,018.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with frame work made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and fixing with self tapping self embedding screws fixed at every 300 mm (centers) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 8 mm Cement Bonded Board		
505	TBSC-K.III-07	Supply and fixing of cement board (conforming to IS:14862:2000) wall paneling with frame work made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof 'U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and fixing with self tapping self embedding screws fixed at every 300 mm (centers) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading. Surface will be given a smooth finish over a coat of primer. - With 10 mm Cement Bonded Board	1 Sqm	1,171.00
506	TBSC-K.III-08	Supply and fixing Cement Bonded Particle Board conforming to IS 14276 wall paneling using 10 mm Cement Bonded Particle Board conforming to IS 14276 with frame work made of GI stud section of size 48mm x 35mm x 0.55mm thick placed at every 610 mm C/C intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps and Cement Bonded Particle Board conforming to IS 14276 is to be fixed to frame by means of self tapping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat of synthetic plastered primer and two coats of synthetic smooth finished putty and cost & conveyance of all materials, labour charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1,749.00
507	TBSC-K.III-09	Supply and fixing of Cement Bonded Pre-laminated Particle Board wall paneling using 12 mm Cement Bonded Pre-laminated Particle with frame work made of G.I stud section of size 48mm x 35mm x 0.55mm thick placed at every 610mm intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. Cement Bonded Pre-laminated Particle is to be fixed to frame by means of self-taping screws placed at every 300mm	1 Sqm	2,577.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		intervals leaving 3mm gap between two panels. The cost inclusive of Conveyance of materials, Labour charges etc., complete as per the direction of Engineer in charge		
508	TBSC-K.III-10	Providing and fixing plain PVC rigid foam sheet wall paneling of thickness 5mm consisting of panels having size 1220mm X2440mm stuck on inner frame work of 25mm wide strips of 5mm thick PVC rigid foam sheet. The strips should have in their centre a groove of 6mm width and 2mm depth for sinking the head of the screw used to fix the strips to the wall and should be placed vertically at equal intervals of 405/407mm centre to centre. The PVC strips shall be fixed to the wall using 65mm long M.S. screws through the groove in the strip by using PVC fasteners. The distance between two screws shall not be more than 300mm. a groove of 2mm may be left at the joint of two panels for aesthetic looks. This framework is done for making existing wall surface in ensured level and for sticking the wall paneling sheet (panel) on it. The exact size of the panel and correspondingly of the grid May be varied depending on the size of the wall. However it must be ensured that a strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck at the places where two panels are joined, using solvent cement. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	2,291.00
509	TBSC-K.III-11	Providing and fixing INSULATED PVC WALL paneling shall consist of PVC insulated panels having wall thickness of 1mm /1.5mm/2mm PVC sheet and the desired thickness of EPS (dependent on the insulation required) screwed into the wall using screws of adequate length. The screws shall be placed at a distance of 150mm and shall be 25mm from the edge of the insulated panel on all from sides of the panel. The PVC strips of 5mm thick PVC sheet of width 75mm feathered at the edges shall be stuck using solvent cement adhesive at the places where two panels are joined, so as to cover the screw of both the panels, using solvent cement. 90 heat bent strips of 5mm thick PVC sheets of width 75mm X75mm feathered at the edges shall be stuck at wall joints / pillars etc. , complete as per direction of Engineer-in-Charge, manufacture's specification & drawing	1 Sqm	2,412.00
510	TBSC-K.III-12	Supply and fixing of wall paneling on the framework of wooded rippers of 24 X 24mm	1 Sqm	1,567.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of required size. The entire framework shall be paneled with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm $\pm$ 0.3mm. The panels are joined with tongue and groove system. Necessary cut-outs for electrical connections to be provided at required places complete, for finished item of work.		
511	TBSC-K.III-13	Providing and fixing wall paneling with 8mm thick high pressure steam cured non asbestos fibre cement siding planks Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the help of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make	1 Sqm	2,687.00
512	TBSC-K.III-14	Providing and fixing wall paneling with 8mm thick high pressure steam cured non asbestos fibre cement artwood Fibre cement pre colored siding planks Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the help of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling	1 Sqm	2,332.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make		
513	TBSC-K.III-15	Providing and fixing wall paneling with 9mm thick high pressure steam cured non asbestos fibre cement stone board Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the help of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 620/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make	1 Sqm	2,856.00
514	TBSC-K.III-16	Providing and fixing wall paneling with 9mm thick high pressure steam cured non asbestos fibre cement heavy duty board Density >1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity .0872 W/mK confirming to IS 14862:2000 and Type B category III of ISO 8336:1993, reaction to fire A2S1d0 tested as per EN13501 Part I and BS 476 Part 4,5,6,7 fixed on the supporting W profile/Aluminium tube or iron tube with the help of full threaded flat head screw 0.70 mm thick having a knurled web of 51.55mm and two flanges of 26mm each with lips of 10.55mm placed at 407/1220mm c/c vertically and a perimeter channel having one flange of 20mm and another flange of 30mm with	1 Sqm	2,283.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thickness of 0.70mm and web of length 27mm is fixed on the floor and the ceiling with the nylon sleeves @ 300mm c/c with expandable fasteners. Board is fixed to the W profile with 35mm long self embedding type screws @ 300mm c/c all complete as per the drawing and directions of Engineer-in-Charge. The boards maybe finished so as to have a uniform gap/groove or overlapping system. The groove shall be filled up with clear PU sealant. Finally exterior surface of the boards to be painted with PU paint of approved shade/make		
515	TBSC-K.III-17	Providing and Fixing of Armstrong Optra Acoustical Wall Panel with square edges made of fibre glass substrate 25mm thick, wrapped on the front side with an acoustically transparent fabric as per the approved shade (Husk, Copper, Sangria, Sesame, Coffee, Charcoal, Titanium, Flame, Peanut and Shell). The panel shall be classified for Fire Class A, as per ASTM E-84. The Acoustical Wall Panel shall be of sizes 600x600mm (Nominal) or 600x1200mm (Nominal) and shall achieve an NRC of 0.85 (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) with 50mm airgap as per ASTM C423 to be fixed to wall on a framework of wooden battens and using Wall panel Impalers (supplied by the manufacturer) or by using construction adhesives (as per the instructions laid down by the manufacturer). The fibre glass substrate shall have a recycle content of 85%. <u>INSTALLATION:</u> An appropriate vapour barrier (by others) shall be applied/installed on the vertical surface before the installation to properly seal against entry of any moisture. Vapour barrier (by others) shall be installed as per Manufacturer's recommendation. Install wooden batten grid (provided by others) of section 50x50mm or as approved by the Architect on the solid wall/partition to provide level and plumb surface. The Impalers shall be fixed to the battens using self-tapping screws, 3 nos. in case of 600x600mm and 4 nos. in case of 600x1200mm. Silica based construction adhesive (by others) to be dabbed on to the projecting elements (spikes) of the Impalers. Armstrong Optra Wall Panels shall be pierced through the spikes of the Impalers ensuring the line and level of the panels are maintained.	1 Sqm	5,275.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
IV	SUB-SECTION	PARTITIONS		
516	TBSC-K.IV-01	Supply & fixing 75mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall top coat as per specification.	1 Sqm	1,350.00
517	TBSC-K.IV-02	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work- using 8mm thick Calcium silicate boards	1 Sqm	1,426.00
518	TBSC-K.IV-03	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work - Using 10mm thick Calcium silicate boards	1 Sqm	1,596.00
519	TBSC-K.IV-04	Supply and Fixing 66mm thick metal stud partition screw fixed to either side of 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm and the joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification finished Item of work - Using 12mm thick Calcium silicate boards	1 Sqm	1,764.00
520	TBSC-K.IV-05	Supply and Fixing 66mm thick metal stud partition using 2 layers of 12mm thick Calcium silicate boards screw fixed to either side to 48mm studs of 0.55mm thick with 50mm floor and ceiling channel 0.55mm. The boards joints are to be staggered to avoid through passage. Ceramic wool of 50mm thick, 64kg/m3 density is to be placed in cavity of the partition. The joints duly finished with joining compound, glass fibre tape and two coats dry wall top coat as per specification with out painting for finished item of work	1 Sqm	4,730.00
521	TBSC-K.IV-06	Supply and fixing double skin cement board (conforming to IS:14862:2000) partition with Frame work made of GI stud profile of size 48 x 40 x 10 x 0.55 mm thick placed at every 610 mm C/C intervals and 1220 mm horizontal intervals duly fixed with self expansion screws, the cement board of 8 mm thick cladded around with self tapping self embedding screws fixed at every 300 mm (centers) leaving 3 mm gap between two	1 Sqm	1,777.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		panels and the gap will be covered with decorative moulding surface will be given a smooth finish over cement primer. The rate is inclusive of cost and conveyance of all materials and labour charges etc. complete.		
522	TBSC-K.IV-07	Providing and fixing of 50 mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 5 mm thick non-asbestos fibre reinforced cement sheets (conforming to IS:14862:2000) on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x52x31 mm fixed to the existing floor with 6x60mm nylon self expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.8 mm thick GI Channel of size 31x52x31 mm duly fixed to the existing ceiling with 6x60mm nylon self expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 50mm SOLID WALL PANELS, G.I. Floor and ceiling channel. The panels can be flushed by using paper tape and Everest jointing compound all complete	1 Sqm	1,834.00
523	TBSC-K.IV-08	Providing and fixing of 75mm thick SOLID WALL PANEL Sandwich panels made of light Weight FRACC two 5 mm thick non-asbestos fibre reinforced cement sheets (conforming to IS:14862:2000) on either side of the lightweight concrete core composed of Portland cement binders with tongue and groove arrangement. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x77x31 mm fixed to the existing floor with 6x60mm nylon self expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.80 mm thick GI Channel of size 31x77x31 mm duly fixed to the existing ceiling with 6x60mm nylon self expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the mixture of fly ash and sodium silicate in between and Everest jointing compound all the exposed joints. The rate includes cost of 75mm SOLID WALL PANEL panels, G.I. Floor and ceiling	1 Sqm	2,187.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		channel. The panels can be flushed by using paper tape and Everest jointing compound all complete.		
524	TBSC-K.IV-09	Supply & fixing of 50 mm thick partition with composite panel comprise of two 5mm thick Boards (asbestos-free fibre reinforced cement sheets conforming to IS 14862) strongly bonded with core material which is light weight concrete mix of Portland cement, expanded polystyrene bead aggregates and admixture. s with unique semi-circular Tongue & Groove Joining System provides better stability, rapid installation and better workability. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x52x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.8 mm thick GI Channel of size 31 x 52 x 31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the jointing compound in all the exposed joints. The rate includes cost of 50mm S, G.I. Floor and ceiling Channel.	1 Sqm	1,834.00
525	TBSC-K.IV-10	Supply & fixing of 75 mm thick partition with composite panel comprise of two 5mm thick Boards (asbestos-free fibre reinforced cement sheets conforming to IS 14862) strongly bonded with core material which is light weight concrete mix of Portland cement, expanded polystyrene bead aggregates and admixture. s with unique semi-circular Tongue & Groove Joining System provides better stability, rapid installation and better workability. The bottom of the panel shall be fixed to the floor channel made up of 1 mm thick GI channels of size 28x77x31 mm fixed to the existing floor with 6x60mm nylon self-expansion screws at 600 mm C/C and top of the panel fixed with ceiling channel made out of 0.8 mm thick GI Channel of size 31x77x31 mm duly fixed to the existing ceiling with 6x60mm nylon self-expansion screws at 600 mm C/C. All the tongue and groove joints of the panels have to be properly cleaned and both the panels have to be fixed by applying the jointing compound in all the exposed joints. The rate includes cost of 75mm S, G.I. Floor and ceiling Channel.	1 Sqm	2,187.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
526	TBSC-K.IV-11	Supply and fixing double skin partition using with 10 mm Cement Bonded Particle Board conforming to IS 14276 made out of G.I. track section of size 50mmx 35mm x 0.55 mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals horizontally fixed to the wall by means of self expansion screws and caps to the wall and roof the panel is to be fixed both sides of frame work by using self taping screws fixed at every 300mm intervals to the frame work leaving 3 mm gap between two panels. The cost inclusive with one coat of synthetic primer and two coats of synthetic plaster smooth finish and cost and conveyance of all materials to site, labour charges etc., complete as per the direction of Engineer in charge.	1 Sqm	2,674.00
527	TBSC-K.IV-12	Supply and fixing of Cement Bonded Prelaminated Particle Board double skin partition using with 10 mm Cement Bonded Prelaminated Particle Board made out of G.I track section of size 50 mm x 35mm x 0.55mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm internals horizontally. The frame is fixed by means of self expansion screws and caps to the wall / roof. Cement Bonded Prelaminated Particle Board is to be fixed both sides of the frame work by using 2mm thick electro plated CR flat section leaving 3mm gap between two panels. The cost inclusive of cost and conveyance of all materials to sites, other materials incidentals and labour charges as per the direction of Engineer in charges.	1 Sqm	3,683.00
528	TBSC-K.IV-13	Supply and fixing of Cement Bonded Prelaminated Particle Board aluminium glazed partitions using 10MM Cement Bonded Prelaminated Particle Board and 5.00 mm thick plain glass to full height. Using with Cement Bonded Prelaminated Particle Board to a height of 0.91 meter at bottom panel and remaining height with glass and aluminium sections anodized to 12 to 15 microns and of sections of size 37mm x 62mm and 1.5mm thickness with one meter centre to centre duly fixed with clip beading on both sides including fixing the frame to pillars by M.S. flats, bolts and nuts including cost and conveyance of all materials etc., complete as directed during execution.	1 Sqm	4,304.00
529	TBSC-K.IV-14	Providing and fixing 50mm thick SEMI HEIGHT SOLID PVC PARTITION consisting of 49mm	1 Sqm	3,255.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		sandwich PVC panel made out of 36mm high density expanded polystyrene sheet(E.P.S.-Thermocol) stuck on both side with 2mm thick plain/printed /prelam PVC rigid foam sheets reinforced with frame work made from 35mmX5mm M.S. Angle. In between two M.S. Angles 5mm thick plain/printed/prelam heat moulded “” PVC ‘C’ channel of size 50X100mm with feathered edges shall be fixed on the floor & 50X75mm with feathered edges plain/printed /prelam PVC ‘C’ channel. In between adjoining EPS sandwiched PVC partitions panel 5mm thickX75mm width plain/printed/prelam PVC sheet feathered at edges shall be stuck on front & back face using solvent cement etc. in places where two partitions meet to form an ‘L’ shape the panels are joined 5mm thick plain/printed/prelam heat moulded “” PVC ‘L’ section of size 75mmX75mm with feathered edges shall be fixed on front & back side. This is done to maintain the symmetry of design. An additional 5mm thick PVC strip of 40mm width is to be stuck on the interior side of the ‘C’ Channel using PVC solvent adhesive, complete as per direction of Engineer-in-Charge, manufacture’s specification & drawing		
530	TBSC-K.IV-15	Supply and fixing of PVC Double Skin Partition. The entire framework shall be carried out by mild steel section having overall dimensions of 24 X 48mm with a wall thickness of 1.2mm. The entire framework shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm both sides. Glass provision/Door provision can be provided along the partition wherever required. Partitions can be made full or half as per requirement complete, for finished item of work.	1 Sqm	2,748.00
531	TBSC-K.IV-16	Supply and fixing double skin cement based Board partition with Frame work made of GI stud profile of size 48x40x 10x 0.6 mm thick placed at every 610 mm C/C intervals and 915 mm horizontal intervals duly fixed with self expansion screws, the Cement Bonded Board of 8 mm thick cladded around with self tapping self embedding screws fixed at every 300 mm (centers) leaving a 3 mm gap between two panels of width 2’-0”(610 mm). The Gap will be covered with a decorative moulding surface will be given a smooth finish over cement primer. The rate Inclusive of cost and conveyance of all materials and labour charges etc., Complete. DOUBLE SKIN	1 Sqm	1,538.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		PARTITION		
532	TBSC-K.IV-17	Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be paneled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diametertermine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket Centre mullions are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diametertermine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete/masonry wall by means of self expanding screws, and complete for finished item of work Fixed Partition: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm.	1 Sqm	5,434.00
533	TBSC-K.IV-18	Supply and fixing of partitions made of seccolor pre-painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be paneled with 9mm pre-laminated particle board to a height of 0.91m from the bottom, and remaining height with 5mm thick plain glass With Ethyl Propylene Diametertermine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket Centre mullions are to be fixed using mullion cap. Gaskets made of Ethyl Propylene Diametertermine Monomer (EPDM). Corner	1 Sqm	6,195.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		brackets made of CRCA with zinc phosphate. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete/masonry wall by means of self expanding screws, and complete for finished item of work Fixed Partition with Door: Outer frame section size of 46x52mm, mullion section should be of 46x70mm, fixed beading should be of 18x25mm, section for shutter should be of 46x46mm and section for middle & bottom should be of size 23x130mm		
534	TBSC-K.IV-19	Providing and fixing in position wall paneling to all heights with eco friendly light weight calcium silicate panels/tiles globe design of size 595x595mm having square/butt edge having NRC i.e. Noise reduction coefficient of 0.5 to 0.75 as per IS 8225:1987, Light reflectance of 85% minimum, Non combustible as per BS 476 part 4, fire performance as per BS 476 part 6&7, humidity resistance of 100% and thermal conductivity < 0.043 W/m K as per ASTM 518: 1991 comprising of a frame made from especially fabricated galvanized mild steel sheet 0.50mm thick pressed section galvanizing @ 120 grams per sqm including both sides i.e. vertical studs of size 48x34x36mm re placed at 600mm center to center in a floor and ceiling channel section of size 50x32mm fixed to the floor and soffit at 600mm centers using 12mm dia, 50mm long wedge type expanded zinc alloy dash fastener with 10mm bolt. Glass wool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13x3.2mm on to this grid leaving an even groove of 1mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound and fiber joint tape roll 50mm wide and tow coats of primer suitable for paneling as per manufacturers specification as per direction of Engineer-in-Charge with 15mm thick integral densified fully perforated light weight calcium silicate panels/tiles	1 Sqm	2,452.00
535	TBSC-K.IV-20	Providing and fixing in position 67mm thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 8mm thick High pressure steam cured Everest non	1 Sqm	2,988.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		asbestos fibre cement wall board density>1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
536	TBSC-K.IV-21	Providing and fixing in position 69mm thick partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 9mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m ³ , Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge	1 Sqm	4,102.00
537	TBSC-K.IV-22	Providing and fixing in position 70 thick	1 Sqm	3,770.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		partition using Galvalume wall frame system AZ 150, 300Mpa yield strength sections minimum 0.55mm thickness with 150gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 9mm thick High pressure steam cured Everest non asbestos fibre cement heavy duty wall board density>1200 kg/m3, Modulus of rupture 24 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on wet side and 10mm thick Fibre cement wall board density>1200 kg/m3, Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on other side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel 0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
538	TBSC-K.IV-23	Providing and fixing in position 71mm thick partition using GI Sections minimum 0.55mm thickness with 180gms/sqm coating of aluminium zinc as per IS 277/1992 max height 3m using 10mm thick High pressure steam cured Everest non asbestos fibre cement wall board density>1200 kg/m3, Modulus of rupture 15.85 Mpa, Thermal conductivity 0.0872 W/mK confirming IS 14862:2000 and Type B category III of ISO 8336:1993, Reaction to fire A2-s1-d0 tested as per EN13501 part I and BS 476 Part 4,5,6,7 on either side fixed on the framework with 25mm fully threaded self tapping screws @ 300mm center to center on either side of 51mm studs 0.55mm thick having one flange of 42mm and another flange of 44mm made of Galvalume wall frame placed at 610mm c/c in 51mm floor and ceiling channel	1 Sqm	3,351.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		0.55mm thick having equal flanges of 32mm Galvalume steel. Boards are to be fixed horizontally in a staggered manner to avoid through joints on both sides. The boards maybe finished so as to have uniform gap/groove. Alternatively, uniform gap/grooves maybe covered with manufactured recommended jointing compound or expansion filler for jointless/seamless finish. All complete as per drawing and directions of Engineer-in-Charge		
539	TBSC-K.IV-24	Providing and fixing in position 100mm thick drywall partition system which includes Galvalume wall frame system AZ 150, 300Mpa yield strength comprising of 51mm floor and ceiling track profile 0.5mm thick having two equal flanges of 32mm fixed to the floor and ceiling in plumb with each other with 6mm anchor fasteners at 620mm c/c, vertical studs of size 51mm, 0.5mm thick having one flange of 42mm and another flange of 44mm and two equal lips of 6mm insert fixed into the track profiles at 620mm centers, 12mm thick Everest board conforming to IS 14862 Type B and 12.5 thick Gypsum plaster board are screw fixed to the either side of the framework as inner and outer layer with 25mm fibre cement screws and 35mm drywall screws, respectively at 300mm centers. The cavity of frame should be filled with mineral wool of 48kg/m ³ density and 50mm thickness. Finally the joints of the Gypsum plaster board are to be jointed and finished with joint tape and gypsum jointing compound. All the periphery of the partition should be sealed with acoustic cum fire rated sealant.	1 Sqm	4,516.00
L	SECTION	DOORS, SHUTTERS & FRAMES		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	DOOR FRAMES		
540	TBSC-L.I-01	Mild Steel Hallow single rebate general purpose door frames manufactured using cold roll formed process steel sheet of 1.25 mm thick bright (Cold Rolled Close Annealed (CRCA) and profile-B of size 105 x 60 mm conforming to IS 4351 - 2003 including pre-treatment, phosphating with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors	1 Rm	412.00
541	TBSC-L.I-02	Powder Coated Mild Steel Hallow single rebate door frames manufactured using cold roll formed process steel sheet of 1.25 mm	1 RM	755.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thick bright (Cold Rolled Close Annealed (CRCA) and profile size of 105 x 60 mm conforming to IS 4351 - 2003 including pre-treatment, Galvanized as per IS:277, zinc phosphating finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 60 - 65 microns(Dry film thickness)Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame with Hinges, Base Ties, Holdfast Lugs, Mortar Guards, shock absorbers and provision for Tower Bolts, Aldrops, Lock & Strike plates etc. for both single and double shutter doors		
542	TBSC-L.I-03	Providing and fixing factory made polyvinyl chloride (PVC) Door Frame of the size 50 x 47mm with a wall thickness of 5mm, made out of extruded 10 mm rigid PVC foam sheet, mitre cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm M.S. square tube. The two vertical door profiles are to be reinforced with 19x19mm M.S. Square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long M.S. Screws through the frame by using PVC fasteners. A minimum of 4nos. of screws to be provided for each vertical member & minimum 2nos. for horizontal member etc. complete as per manufacturers specification and direction of Engineer-in-Charge for finished item of work	1 Rm	315.00
543	TBSC-L.I-04	SUPPLY & FIXING SINGLE SIDE PRELAM SOLID PANEL PVC DOOR FRAME (CHOUKHAT) Providing and fixing factory made Pac single side Prelam door frame of the size 50X47 mm with a wall thickness of 5mm, made out of extruded 5mm rigid Pac single side prelam sheet, meter cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm MS. Square tube. The two vertical door profiles are to be reinforced with 19X19mm MS. square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long MS. Screws through the frame by using Pac fasteners. a minimum of 4nos. of screws to be provided for each vertical member and minimum 2nos. for horizontal member etc. complete as per manufacture specification and direction of Engineer-in-charge.	1 Rm	330.00
544	TBSC-L.I-05	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 57mm with the wall thickness of 2mm +/- 0.2mm duly reinforced	1 RM	256.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with seasoned wood plank at the hinges side. The door frame top 2 corners shall be metre-cut/ welded. PVC DOOR FRAME		
545	TBSC-L.I-06	Supply and fixing of door frame made of hollow extruded PVC section having dimensions of 40 X 47 mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be mitre cut/welded	1 RM	202.00
546	TBSC-L.I-07	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 60 mm	1RM	245.00
547	TBSC-L.I-08	Supply & fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. complete for finished item.: Double shutter 5'-0" x 7'-0" (1524 x 2133.6mm) outer frame section size of 50 x 60 mm	1 RM	245.00
548	TBSC-L.I-09	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 75 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	276.00
549	TBSC-L.I-10	Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 75 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. Complete for finished item of work.: Single shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	276.00
550	TBSC-L.I-11	Providing and fixing door frames fabricated from sections made of galvanized steel	1 RM	837.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		powder coated (base steel as per IS 513, galvanized as per IS 277 with zinc of 120 grams / square metre), the factory made section are powder coated with pure polyester powder of 50-60 microns thick with total coated thickness of 1.25 mm, size of door frame section is of 105 x 60 mm with a rebate of 38 mm to accommodate 35 mm thick door shutter, with groove to insert gasket in the frame section, frame section filled with polyurethane foam, cut to length, and joined by way of welding, each frame provided with: a) 2mm thick MS powder coated butt hinges of 100 mm long - 3 Nos. for single shutter, 6 Nos. for double shutter. b) CRCA electroplates stiffeners of 6 Nos. - 3 in each vertical. c) 40 mm x 200 mm x 1.2 mm hold fasts screwed to stiffeners - 6 Nos. with split end tail. d) Nylon Aldrops Receiver - 1 No. for single shutter frame. e) Tie Rod - 1 No		
551	TBSC-L.I-12	Providing and fixing of door frames factory made, internal door frames without threshold, fabricated from pre painted cold roll formed section 100 mm x 60 mm made of galvanized (base steel as per IS-513 'D' quality galvanized as per IS-277 with Zinc of 120 Gms/sqm) steel colour coated sections with total coated thickness of 1 mm primer coated with epoxy primer of 5-7 microns thick finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns, the frame section filled with polyurethane (PU Foam) of 40 kg/Cum and the sections cut to length and mitre joined by means of 1.25 mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25 mm thick electroplated stiffeners of size 150 mm for fixing hold fasts and hinges with MS Powder coated fittings a) 6 Nos M.S. Z Type hold fasts made of 30 mm x 3 mm MS flat of 230 mm long, 3 Nos each size expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges /2.5 mm x 50 mm x 50 mm x 100 mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf/leaf) c) 12 mm Diameter MS tie rod at bottom with necessary size of nuts on either side.	1 RM	461.00
552	TBSC-L.I-13	Supply and fixing of factory made Bathroom door frames without threshold, fabricated from pre-painted cold roll formed section 50mm x 50 mm made of galvanized steel as per IS - 513 'D' quality, galvanized as per IS-277 steel colour coated sections primer coated with epoxy primer finish painted with	1 RM	416.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		polyester paint the frame section filled with polyurethane (P.U. Foam) of 40 Kg/Cum; and the sections joined by means of 1.25mm thick CRCA electroplated corner brackets of size 75 x 75 mm and 1.25mm thick electroplated stiffeners of size 150mm for fixing hold fasts and hinges together with the following MS Power coated fitting (Supply and fixing) of approved make. a) 6 Nos M.S. Z. Type hold fasts made of 30mm x 3 mm MS flat of 230mm long, 3 Nos each side expandable PVC covered screw type fasteners b) 2.5 mm x 300 mm long 'T' hinges / 2.5mm x 50 mm x 100mm two way but hinges (3 Nos for single leaf or 2 Nos for Double leaf /leaf)c) 12 mm Diameter MS tie rod at bottom with necessary size of nuts on either side.		
553	TBSC-L.I-14	Supply of factory made Precast Reinforced Cement concrete door frame of with overall dimension of 60 x 100 mm for single shutter door (+/-2mm) three nos, of 6mm dia steel bars are used for longitudinal reinforcement for each vertical and horizontal member and are held firmly by 3mm dia ties spaced at not more than 300mm c/c Polymer wonder blocks are provided in the frames for tower bolt and hinges provisions made in the frame for Aldrops provisions are made in the vertical member for fixing of 3 nos. hold-fasts with 8 mm dia bolts and the frame surface shall be smooth without any voids and shall confirm to IS 6523 complete finished item including all taxes as per specifications & the directions of the Engineer-in-Charge.	1 RM	360.00
554	TBSC-L.I-15	Supply of factory made Precast Reinforced Cement concrete double door frame of the door frame shall have overall dimension of 60 x 125 for single shutter door(+/-2mm) four nos, of 6mm dia steel bars are used for longitudinal reinforcement for each vertical and horizontal member and are held firmly by 3mm dia ties spaced at not more than 300mm c/c Polymer wonder blocks for fixing of tower bolt and hinges with provision for Aldrops and 3 nos. hold-fasts with 8mm dia bolts and the frame surface shall be smooth without any voids and shall confirm to IS 6523 complete finished item including all taxes as per specifications & the directions of the Engineer-in-Charge.	1 RM	467.00
555	TBSC-L.I-16	Fixing of precast RCC frames (Precast RCC framed members to be supplied at site) including assembling the members for door frames fixing to MS masonry or RCC wall face including providing and fixing Six no. hold-	1 RM	286.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		fasts of MS Flat 40x5mm and length 40cm per frame embedding in cement concrete blocks of size 30x10x15 cm of mix (1 cement:3 Coarse sand: 6 graded stone aggregate 20 mm nominal size) complete as per specification & the directions of the Engineer-in-Charge		
556	TBSC-L.I-17	Providing and fixing factory made solid Wood Polymer Composite (WPC) single extruded Door Frame section of 100*65 MM with encapsulation of 6 MM rigid layer on all external surfaces. The door frame will have a rebate of 32MM/ 37 MM. The two Vertical members are to be joined together with the horizontal member using 8x75 MM long MS Star full thread screws to be used with reverse forward speed control hand drilling machine. The ready/assembled door frame is fixed to wall using Z Hand fast 300 MM long hold fast.	1 RM	801.00
557	TBSC-L.I-18	Supplying and fixing of 28/30 mm thick Wood Plastic Composite (WPC) Door shutter, comprising of 70% virgin polymer, 15% wood powder (fiber), and the remaining 15% additives, comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately)	1 Sqm	2,204.00
558	TBSC-L.I-19	Supplying and fixing of 24/26 mm thick Wood Plastic Composite (WPC) Door shutter, comprising of 70% virgin polymer, 15% wood powder (fiber), and the remaining 15% additives, comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof	1 Sqm	2,070.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately)		
II	SUB-SECTION	DOOR SHUTTERS WITHOUT FRAMES		
559	TBSC-L.II-01	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 25 mm thick conforming to IS:2202	1 Sqm	2,069.00
560	TBSC-L.II-02	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 30 mm thick conforming to IS:2202	1 Sqm	2,171.00
561	TBSC-L.II-03	Flush door shutters, solid bond wood block board type with teak ply on both faces.: 35 mm thick conforming to IS:2202	1 Sqm	2,371.00
562	TBSC-L.II-04	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 25 mm thick conforming to IS:2202	1 Sqm	1,182.00
563	TBSC-L.II-05	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 30 mm thick conforming to IS:2202	1 Sqm	1,426.00
564	TBSC-L.II-06	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 35 mm thick conforming to IS:2202	1 Sqm	1,612.00
565	TBSC-L.II-07	Flush door shutters, solid bond wood block board type with commercial ply on both faces.: 40 mm thick conforming to IS:2202	1 Sqm	1,826.00
566	TBSC-L.II-08	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 20 mm thick conforming to IS:2202	1 Sqm	2,273.00
567	TBSC-L.II-09	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 25 mm thick conforming to IS:2202	1 Sqm	2,208.00
568	TBSC-L.II-10	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 30 mm thick conforming to IS:2202	1 Sqm	2,445.00
569	TBSC-L.II-11	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 35 mm thick conforming to IS:2202	1 Sqm	2,666.00
570	TBSC-L.II-12	Flush door shutters, solid bond wood block board type with teak veneer on one face and commercial ply on another face (lipping): 40 mm thick conforming to IS:2202	1 Sqm	3,047.00
571	TBSC-L.II-13	Supply and fixing of Cement Bonded Prelaminated Particle Board single door shutter using 16MM Cement Bonded Prelaminated Particle Board with all round section "U" size of mm thick galvanized pre-painted cold rolled steel profiles Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'0" (	1 Sqm	2,704.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long Aldrops 2 no's , MS powder coated 250mm long tower bolt 1 no's, 2no's MS powder coated 125mm long grip handle, 1 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.		
572	TBSC-L.II-14	Supply and fixing of Cement Bonded Prelaminated Particle Board double door shutter using 16MM Cement Bonded Prelaminated Particle Board with all round "U" section size of 20mm x 18mm x 20mm made from 0.6mm thick galvanized pre-painted cold rolled steel profiles with Cement Bonded Prelaminated Particle Board separating two shutter with 30mm x 20mm x 30mm stepped lipping with necessary screws fixed at every 1'0" (304.8mm) intervals. The cost inclusive of MS Nickel coated 250mm long Aldrops 2no's, MS powder coated 125mm long grip handle, 2 no's M.S.P.C. Door stopper. Including cost and conveyance of all materials at site labour charges etc., complete finished item of work.	1 Sqm	3,433.00
573	TBSC-L.II-15	Supply and fixing of Cement Bonded Prelaminated Particle Board door shutter made out of U sections of size 12x14x12 made from 0.6mm thick pps sections with 12MM Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'.0"interwells. The hardware consists of 250mm long Aldrops - 2 Nos.150mm Handle- 1 No , 150 mm long ms powder coated tower bolt 1 no. nickel coated. The cost is inclusive of all incidentals, labour transportation charges.	1 Sqm	2,645.00
574	TBSC-L.II-16	Supply and fixing of Cement bonded Particle BOARD (conforming to IS 14862) door shutter with all-round style "U" lipping size 15 x 18 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with 16 mm thick Cement bonded Particle BOARD with necessary screws fixed at 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm	1,820.00
575	TBSC-L.II-17	Supply and fixing of Cement bonded Particle BOARD (conforming to IS 14862) 12 mm thick door shutter of size 6'0" x 2'6" with all-round style "U" lipping size 15 x 14 x 15 mm made from 0.8 mm thick powder coated cold	1 Sqm	1,559.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		rolled steel profiles with necessary screws fixed at 1'-0" interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts Including cost and conveyance of all materials at site and applying 1 coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved design for finished item of work.		
576	TBSC-L.II-18	Supply and fixing door shutter with frame made out of PVC section and panels conforming to IS:10151-1982 having panel sizes of 100 mm x 30 mm with self extruded grooves at 40 mm x 50 mm grooves on front face and the infill panel dimension is 610 mm x 20 mm seamless hollow multi chambered PVC single panel for finished item of work.	1 Sqm	2,532.00
577	TBSC-L.II-19	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick of Masonite or equivalent doors - 30 mm thick	1 Sqm	1,782.00
578	TBSC-L.II-20	Moulded panel solid core flush doors using water-resistant hardwood fibre HDF / MDF fibre boards skins of 2.5 mm thick Masonite or equivalent doors - 35 mm thick	1 Sqm	1,948.00
579	TBSC-L.II-21	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 30 mm thick	1 Sqm	1,272.00
580	TBSC-L.II-22	Solid core membrane flush doors using rigid PVC membrane of 0.3 mm thick of different elegant shades doors - 35 mm thick	1 Sqm	1,409.00
581	TBSC-L.II-23	Providing and fixing 35mm thick FACTORY MADE MOULDED DOOR SHUTTER consisting of solid core single leaf flush door of 30mm thickness, lipped with 15mm (5mmX3) thick X 30mm width on one stiles and top rails and 10mm (5mmX2) thick X 30mm width on the other stiles and bottom rails. The inner panel laminated with 2mm thick termite proof, water proof and fire resistant moulded Pac sheet with 2,4,6 raised panel design in different panel and / or prelam colours on one side after routing the moulded design on flush door and 2mm prelam Pac sheet on other side using rubber adhesive on flush door and solvent cement adhesive on Pac lipping etc. complete as per direction of Engineer-in-Charge, manufacture specification and drawing	1 Sqm	3,200.00
582	TBSC-L.II-24	Supply & Fixing SOLID STEEL DOOR shutter made out of G I Precoated Sheet with an average wall thickness of 0.35 mm on both sides. MS Tube having dimensions of 19 x 19 mm is inserted along the hinge side of the door, core of the door shutter filled with High Density Polyurethane foam injected with the help of hydraulic injection method,	1 Sqm	1,634.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		four sides of the door covered with G I Precoated Sheet and the hardware locations reinforced with suitable wooden blocks as per drawing and stickers indicating location of the hardware pasted at appropriate places, etc complete		
583	TBSC-L.II-25	Providing of 35mm thick Factory made Prelaminated ABS (Acrylonitrile Butadiene Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with prelaminated ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides for each shutter and ISI make S.S round lock complete for finished item of work	1 Sqm	6,615.00
584	TBSC-L.II-26	Supply and fixing of Cement Bonded Prelaminated Particle Board door shutter conforming to IS-14276 made out of U sections of size 12 x 18 x 12 made from 0.6mm thick PPS sections with 16 mm Cement Bonded Prelaminated Particle Board with necessary screws fixed at every 1'.0"interwells. The hardware consists of 12 mm dia x 200mm long Aluminium Aldrops - 2 Nos. 125 mm long Handle- 2 Nos. 3 mm x 12 mm x 180 mm long 304 SS hinges- 3 Nos with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The cost is inclusive of all incidentals, labour transportation charges.	1 Sqm	2,940.00
585	TBSC-L.II-27	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white color board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm2 and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per	1 Sqm	926.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately) - 6mm Thick		
586	TBSC-L.II-28	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white color board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately) - 12mm Thick	1 Sqm	1,854.00
587	TBSC-L.II-29	Providing and fixing factory made extruded WPC (Wood Polymer Composite) solid white color board for cupboards and bathroom/kitchen cabinet/partitioning/wall panelling/wall cladding of required size comprising of virgin PVC polymer of K value 58-60 (Suspension grade), Calcium carbonate and natural fibers (wood powder) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum door density of 650 kg/cum, screw withdrawal strength 1800N (Face) & 900N (Edge), Modulus of Elasticity 900N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk SS screws all as per direction of Engineer -in- Charge (SS butt hinges and SS screws shall be paid separately) - 18mm Thick	1 Sqm	2,798.00
III	SUB-SECTION	DOORS WITH SHUTTERS & FRAMES		
588	TBSC-L.III-01	Providing and fixing 30mm thick Solid panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles, & 15mm x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat moulded PVC	1 Sqm	2,292.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		‘C’ channel of size 30 x 50mm forming stiles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Paneling of 5mm thick PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles & rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the ‘C’ Channel using PVC solvent adhesive. Complete as per direction of Engineer-in-charge, manufacturer’s specification & drawing for finished item of work .		
589	TBSC-L.III-02	Providing and fixing 30mm thick FACTORY MADE BOTHSIDE PRELAM SOLID PANEL PVC DOOR SHUTTER consisting of frame made out of MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded Prelam Pac ‘C’ channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 450 angle on either side forming stiles; and 5mm thick, 95mm wide Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered in 450 on the inner side to form top and bottom rail 115mm wide Prelam Pac sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rail shall be provided either side of the panel. 10mm (5mmX2) thick, 20mmwide cross Pac sheet shall be provided as gap insert for top and bottom rail. Paneling of 5mm thick both side Prelam Pac sheet to be fitted in the MS. Frame welded/ sealed to the stiles & rails with 7mm(5mm+2mm) thick X 15mm wide Pac sheet beading on inner side, and joined together with solvent cement adhesive etc. an additional 5mm thick Pac strip of 20mm width is to be stuck on the interior side of the ‘C’ channel using Pac solvent cement adhesive etc. complete as per direction of Engineer - in-charge, manufacture specification and drawing.	1 Sqm	2,618.00
590	TBSC-L.III-03	Providing and fixing 30mm thick FACTORY MADE SOLID SINGLE SIDE PRELAM PANEL PVC DOOR SHUTTER consisting of frame made out of MS. Tubes of 19gauge thickness and size of 19mmX19mm for stiles, and 15mmX15mm for	1 Sqm	2,377.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		top and bottom rails. The MS. Frame shall have a coat of steel primers of approved make and manufacture. MS. Frame covered with 5mm thick heat moulded single side Prelam Pac 'C' channel of size 30mmX50mm to form stiles. 5mm thick & 75mm wide single side prelim Pac sheets shall be for the top, bottom and lock rails. Paneling of 5mm thick one side Pac sheet to be fitted in the MS. Frame and sealed to the front (prelam side) stiles and rails (which should have a 5mm 45 bent portion as beading) and attached to the back (white/ivory) stiles and rails which should have a 10mm 90 bent portion as beading) using 2nos. 15mm wide X 5mm thick Pac sheet beading inside the 90 bent beading. All stiles, rails and beadings are to be joined to the panel using solvent cement etc. an additional 5mm thick Pac strip of 20mm width to be stuck on the interior side of the 'C' channel using Pac solvent cement adhesive and 10mm(5mmX2) thick, 20mm wide cross Pac sheet to be fitted as gap insert for top and bottom rail etc. complete as per direction of Engineer -in-Charge, manufacture specification and drawing.		
591	TBSC-L.III-04	MOULDED PVC DOOR - WOOD FREE Providing and fixing 30mm thick Brand factory made Moulded door shutter- wood free consisting of frame made out of MS. tubes 19 gauge thickness and size of 25mmX25mm for stiles, top and bottom rails. MS. Frame shall have a coat of steel primers. The inner panel shall consist of 25mm thick High density EPS conforming to IS 4671-1984 bounded with 2mm thick termite proof, water proof and fire resistant moulded Pac sheet with 2,4,6 raised panel design in different plain and / or prelam colours after routing to the moulded design on one side and 2mm plain and / or prelam Pac sheet on other side of the EPS. The edge of panel to be sealed with lipping of 10mm wide PVC sheet bottom (made by sticking 2 rigid foam sheet of 5mm thickness using Pac solvent cement) and stiles sides 25mm(5mmX5) thick and 30mm width Pac sheet fitted along Ms. Tube for lock provision for lock height 5mm thick Pac sheet of size 150mmX100mm fixed with upper and lower face of inner side of EPS Panel etc. Complete as per direction of Engineer - in-Charge, manufacture specification and drawing	1 Sqm	2,401.00
592	TBSC-L.III-05	Providing and fixing 30mm thick FACTORY MADE WIRE MESH SOLID PVC DOOR SHUTTER consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mmX19mm	1 Sqm	2,134.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		for stiles and 15mm for top, lock & bottom rails. MS. Frame shall have a coat of steel primers of approved make and manufacture. 19mmX19mm M.S. square tubes shall be covered with 5mm thick heat moulded “” PVC ‘C’ channel of size 30mm thickness, 90mm width out of which 75mm shall be flat and 15mm shall be flat and 15mm shall be bent in 900 on the inner side to from top and bottom rail land 130mm wide PVC sheet out of which 100mm shall be flat and 154mm shall be bent in 900 on both side to from lock rail, 10mm(5mmX2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panel will be of G.I. wire mesh of 24gauge to be fitted in by ‘C’ channel of size 35mm X10mm on the either side in the stiles. The inner side ‘C’ channel is fixed by 19mmX19mm MS. Tube on both sides with screws. The wire mesh in top bottom & lock rail is sealed with 15mm X 15mm tube with G.I. wire 10mm(5mmX2) thick PVC strip of 25mm width is to be stuck& nails on both side of G.I. wire mesh interior at the top, bottom & lock rail. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the ‘C’ channel using PVC solvent cement adhesive etc. complete as per direction of Engineer-in-charge, manufacturer’s specification & drawings		
593	TBSC-L.III-06	Providing and fixing door & shutter of which frame made from 1.2 mm powder coated cold rolled steel profiles of overall section size of 60 mm x 45 mm with 21 mm rebate for shutter with necessary stiffeners hinges and screws with Cement bonded Particle BOARD (IS 14862) shutter with all-round style “U” lipping of size 15 x 18 x 15 mm made from 0.8 mm thick CRCA powder coated steel profile with 16 mm thick Cement bonded Particle board with necessary screws fixed at every 1’-0” interval 250 mm long Aldrops 2 nos. M.S. nickel coated 250 mm long 1 no. M.S. Tower Bolts including cost and conveyance, one coat of primer, 2 coats of luppam and 2 coats of synthetic enamel paint as per approved colour, labour charges etc.	1 Sqm	2,145.00
594	TBSC-L.III-07	Doors Frames (Colour Coated Steel Sections) & Shutter using Cement Bonded Particle Board as per IS 14276 (Cement Bonded Particle Board conforming to IS 14276 or equivalent) : Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) colour coated steel sections with total coated thickness of	1 Sqm	4,240.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m ³ . Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Cement Bonded Particle Board conforming to IS 14276 or equivalent) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Cement Bonded Particle Board conforming to IS 14276 or equivalent) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrops of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of luppam and two coats of synthetic enamel paint as per approved design for finished item of work		
595	TBSC-L.III-08	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding Doors duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCO ₃ for every 100 parts of PVC resin) of 60 mm x 45 mm x 2.20 mm with reinforcement of 1.2 mm thickness, super sash with overall size of 39 mm x 75 mm x 2.20 mm with for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.5 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of bent handle espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6,063.00
596	TBSC-L.III-09	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding doors	1 Sqm	6,821.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with mesh shutter provision - (2-glass shutters)- 95 -Series duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Door shall be provided with standard hardware & multi point locking system of Patio/Bent espagulate .the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
597	TBSC-L.III-10	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding doors with mesh shutter - (2-glass shutters and 1-mesh shutter)- 95 - Series duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (108 mm x 45 mm)/(95.50 mm x 60 mm) x 2.20 mm for outer frames, (75 mm x 39 mm)/(66 mm x 42 mm) x 2.20 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. Mesh shutter shall be made of (48 mm x 30 mm)/(50 mm x 26.5 mm) x 2.0 mm uPVC profile section and fitted with Vinyl Coated Fibre mesh and rollers/pulley duly fixed with TPV Gaskets weathering seal resistant Door shall be provided with standard hardware & multi point locking system of Patio/Roto espagulate and the system is to be installed	1 Sqm	7,538.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
598	TBSC-L.III-11	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters sliding - 112 - Series duly manufactured using UPVC reinforced profiles of 112.0 mm x 60 mm x 2.25 mm for outer frames, 66 mm x 42 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	6,528.00
599	TBSC-L.III-12	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) openable doors with openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections as per the need and 102 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the door sash shall be fitted with 6 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gaskets for sash & Glazing bead shall be co-extruded with Grey colour soft PVC System shall be provided with 4 no's of 3D Hinges for each shutter and multipoint locking with keys with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and	1 Sqm	8,544.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
600	TBSC-L.III-13	Supplying and fixing door shutter, with shutter frame and infill panel made from PVC material conforming to IS: 10151-1982, the shutter frame made out of PVC extruded sections having overall dimension of 47 mm x 33 mm with wall thickness of 1.2mm + 0.3mm with usual process variation, the shutter frame with tapered shape to provide better grip to the infill panel end to drain out the water The Infill panel is made out of PVC Sections having Overall Dimensions of 200 mm x 20 mm with wall thickness of 1mm + 0.2mm, the shutter frames mitre cut and joined at the corner, by providing Polymeric " L " type corners to take hardware & fixtures fixed with 10-20mm counter sunk fully threaded parallel shank steel screws, all the hardware locations reinforced with special polymeric bars as per drawings, stickers showing locations of different hardware pasted on the shutter, the infill panels joined by tongue and groove method.	1 Sqm	1,007.00
601	TBSC-L.III-14	Supply and fixing of door shutters made of rigid PVC extruded hollow section of 20mm X 635 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 no's with tongue and groove locking arrangements. The shutter frame is made of 30mm X 79mm with the wall thickness of 1.5mm +/-0.15mm section mitre-cut and joined at 4 corners with 125mm X 225mm plastic brackets. The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods. Teak wood batons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed onto the door shutter	1 Sqm	1,866.00
602	TBSC-L.III-15	Providing & fixing 30 mm thick solid panel PVC door shutter consisting of frame made out of 19 gauge M.S tube of 19 x 19 mm for stiles, top & bottom rail, with a coat of primer of approved make. M.S. Frame covered with 5 mm thick heat moulded PVC "C" channel of size of 30 x 50 mm forming stiles, 5 mm thick 75 mm wide PVC sheet for top, lock & bottom rail on either side 20 mm wide cross PVC sheet as gap insert for top & bottom rail, paneling of 10mm(+/-)(5mm+5mm)" thick PVC sheet fitted in the M.S. frame welded /sealed to the stiles, on either side joined together with solvent cement adhesive etc., additional 5 mm thick PVC strip of 20 mm width stuck on the	1 Sqm	2,939.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		interior side of the C channel using solvent cement, complete as per direction of Engineer-in-charge, manufacturers specification.		
603	TBSC-L.III-16	Supplying & fixing SINGLE PANEL 30 mm thick PVC DOOR, door shutters with shutter frame and Infill panel made from PVC material, the shutter frame made out of PVC extruded sections having overall dimensions of 105mm x 30 mm with wall thickness of 1.3 mm $\pm$ 0.3 mm, with the Infill panel made out of multi chambered seamless hollow PVC extruded panel having overall dimensions of 610 mm x 20 mm having wall thickness 1 mm $\pm$ 0.2 mm with the shutter frame meter cut and joined at corners and all the hardware locations reinforced with special polymeric bars as per drawing including providing special PVC bracket on hinge side, etc complete	1 Sqm	2,527.00
604	TBSC-L.III-17	Providing & fixing internal prelaminated PVC door frame of size 100 x 45 mm with a wall thickness of 5mm, made of extruded 5 mm Prelam PVC foam sheet, mitred cut at two corners and joined with two nos. of 150mm long brackets of 15 x 15 mm MS square tube, two vertical door profiles reinforced with 40 x 20 MS Tube of 19 gauge throughout the frame and the door frame fixed to the wall using 65/100mm long MS screws through the frame by using PVC fasteners with a minimum of 3 nos of screws provided for each vertical member and two nos. for horizontal, etc complete as per drawing and direction of Engineer in Charge	1 RM	583.00
605	TBSC-L.III-18	Supply & Fixing of Powder Coated Mild Steel doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to single rebate profile of size 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels	1 Sqm	13,513.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, clean room applications		
606	TBSC-L.III-19	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM)coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb Kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt - 1 No., 6" D handles - 2 Nos., 10" Aldrops - 1 No., Butt Hinges - 3 Nos, Mortise Lock of approved quality - 1 No, frames fixed to the concrete/masonry wall by means of self expanding screws complete for finished item of work for Single leaf Door	1 Sqm	12,475.00
607	TBSC-L.III-20	Providing & Fixing of Scientific Doors with metal door frames and door shutters made of galvanize steel (base steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM). coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability/Epoxy polyester powder for powder coating paint thickness 50-60 microns (Dry film thickness) outer frame section of 100 x 58 mm x 1.2 mm thick, shutter section of 0.80 mm thick galvanized steel sheet pressed (roll formed) for 46mm thick fully flush, double skin door shell seam joints at stile edges, in-fill of honeycomb Kraft paper used to give the required rigidity and effective acoustic insulation with 6" Tower bolt - 2 Nos., 6" D handles - 2 Nos., 10" Aldrops - 1 No., Butt Hinges - 6 Nos, Mortise	1 Sqm	13,306.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Lock of approved quality - 1 No, frames fixed to the concrete/masonry wall by means of self expanding screws complete for finished item of work for Double leaf Door		
608	TBSC-L.III-21	Supply & Fixing of Stainless steel doors, frames & shutters made of stainless steel grade 304 of hairline finish, frame with 1.2mm thick formed to single rebate profile of size 100 mm X 58 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for industrial, commercial, residential, clean room applications	1 Sqm	25,333.00
609	TBSC-L.III-22	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	16,045.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
610	TBSC-L.III-23	Supply & Fixing of Powder Coated Fire Rated doors, frames & shutters made of Skin pass galvanized Iron sheet conforming to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr with powder coating of thickness 60-65 Microns, frame with 1.2mm thick Skin pass Galvanized Iron sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Skin pass Galvanized Iron Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	15,201.00
611	TBSC-L.III-24	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in	1 Sqm	25,333.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 120 minutes Fire Rated door conforming to IS:3614 (Part2) 1992		
612	TBSC-L.III-25	Supply & Fixing of Stainless steel Fire Rated doors, frames & shutters made of Stainless steel of 304 grade hairline finish, frame with 1.2mm thick Stainless steel of 304 grade hairline finish sheet formed to double rebate profile of size 143 mm X 58 mm with maximum bending radius of 1.4 mm and filled with in-fill Polyurethane foam, the Door Shutters are with 0.80 mm thick Stainless steel of 304 grade hairline finish Sheet formed to provide a 46 mm thick fully flush, double skin door shell with Lock Seam joints at stile edges, fitted with in-fill of Honeycomb Kraft Paper and coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns and are coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, the Shutter provided with 6 MM clear float vision glass in Circular, Square or Rectangular shapes, Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x3mm thick).Mortise Sash Lock with Lever Handles, Mortise Dead Bolt, etc for 60 minutes Fire Rated door conforming to IS:3614 (Part2) 1992	1 Sqm	22,087.00
613	TBSC-L.III-26	Supply & Fixing of Lead Lined Clean room doors frames and shutters made of Skin pass galvanized Iron sheet (Conform to Base Steel as per IS 513 "D" Quality, Galvanized as per IS 277 with Hot Zinc Coating of 120 grams / Sq.Mtr).with powder coating of thickness 60-65 Microns, frame of 1.60mm thick galvanized steel sheet (Conform to IS 277) formed to Single/double rebate profile of size 100mm X 58mm/ 143x58mm, door frames with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick Galvanized Steel Sheet (Conform to IS 277) formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends	1 Sqm	18,190.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		on radiation level, the lead sheets extend the full width and height of the door, Lead thickness is equal to the shielding in the adjacent wall, the door frames and door shutters are coated with polyester powders of Pure polyester/ epoxy polyester or polyurethane powder for powder coating of thickness 60 - 65 microns, coated with Zinc Phosphate Primer to receive any paint on site or finished with Thermosetting Polyurethane paint of Aliphatic Grade providing high levels of scratch resistance and durability, hardware with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item		
614	TBSC-L.III-27	Supply & Fixing of Lead Lined Stainless steel Clean room door frames and shutters made of Stainless steel grade of 304 hairline finish, frame with 1.60mm (16SWG) thick hairline finish Stainless steel grade of 304 formed to Single/double rebate profile of size 100 mm x 58mm/ 143 x 58 mm, door frames with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level, the shutter with 1.2 mm thick hairline finish Stainless steel grade of 304 formed to provide a 46mm thick fully flush, double skin door shell with Lock Seam joints at stile edges with a single / multi Layer of Lead sheet varying thickness from 3mm /1mm to 2mm depends on radiation level. The lead sheets extend the full width and height of the door. Lead thickness is to be equal to the shielding in the adjacent wall. Hardware can be provided with Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter etc complete for finished item of work	1 Sqm	28,710.00
615	TBSC-L.III-28	Providing of Factory made prelaminated FPVC (Foamed Polyvinyl Chloride) Door frame of the size 105x40mm with a wall thickness of 10mm made out of extruded rigid FPVC profile mitre joined with 6 Nos. of 50mm long screw. The door frame shall be fixed to the wall by using 80mm long screws through the frame with the help of PVC fasteners of 3 no's to be provided for each vertical member, GI stiffeners of ("U" channel of size 29x9x1mm, 150mm long) -3 no's at hinge point, Frame reinforcement of("U" GI channel of size 46x22x.06mm),Bottom tie rod of ("U" GI channel size of 15x15x1mm) etc. complete as per manufacturers specification for finished item of work. Maximum door frame size : 980 x 2070	1 Sqm	8,134.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		including providing of 35mm thick Factory made Prelaminated ABS (Acrylonitrile Butadiene Styrene) Door shutter moulded in different designs, consisting of all round Frame made out of water proof solid foam PVC bar of size 20x32mm, reinforced by 32x 32mm - 2 nos. for vertical made out of LVL (Laminated Veneer Lumber), core material of 32 mm thick high density craft paper honey comb board, sandwiched on both sides with prelaminated ABS sheet thickness of 1.5mm . PVC edge banding of size 0.45mm on the vertical sides. Hardware made out of steel coated butterfly hinges - 3 Nos. for each shutter and ISI make S.S round lock completes for finished item of work. Maximum shutter size of : 910 x 2030 mm		
616	TBSC-L.III-29	Supply and fixing of toilet door shutter with frame made of M.S. door frame of 5 mm x 48 mm x 48 mm (L angel) as all-round frame the frame is coated with one coat of red oxide and two coats of enamel of approved color. For shutter and the shutter is made with 16mm Bison lam shutter with all-round 'U' Lipping of PPS section of 12 mm x 18 mm x 12 mm x 0.60mm, along hardware of 200m long and 12mm dia aluminium Aldrops 2 Nos, 2Nos of 125m m handle, 3 Nos of RT patte hinges IS 304gr SS 2mmX12mmX180mm long with a pole receiver of 10mmDia x 40mm by welded on 3mm x 40mm SS 304, plate it works as receiver for RT Patte hinges it is welded to M.S. angle . M.S. angle will be fixed to wall of self expandable screws and caps	1 Sqm	4,206.00
617	TBSC-L.III-30	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) sliding doors three track - three glass shutters sliding duly manufactured using UPVC reinforced profiles of 108.0 mm x 49 mm x 2.25 mm for outer frames, 85 mm x 41 mm x 2.25 mm for sliding door shutter frames capable of mounting single glazing system, structurally reinforced with reinforced with 35mm x 10mm x 1.5mm thick with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make and fixed with uPVC glazing bead of 22.5mm x 18mm with "C" or "R" type inner and outer EPDM weathering seal resistant accessories like clipping locking system made of aluminium 1 No., per set of sashes and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including	1 Sqm	8,885.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
618	TBSC-L.III-31	Providing and fixing of factory made pre hung door. Frame: Shutter is hung on Factory made door frame of 40mm or 48 mm thickness made of Cement Bonded Particle Board (Bison Panel) and Composite board for water resistant property. Depending on thickness of the wall, width of the frame covers the entire wall from 100 to 300 mm based on actual measurements. The frame is laminated with 0.2mm thick water proof and scratch resistant PVC Foil using hot press and high grade PUR adhesive and is fitted with casing wick (rubber beading) for energy, dust and sound efficiency. The frame is affixed to the wall using high strength expandable PU Foam using tension rods for precision and optional anchor bolts, side and top of frame attached together using dowel screws and quick acting adhesives. Shutter: Factory made 42 mm thick shutter sandwiched with laminated Cement Bonded Particle Board (Bison Panel) 6 mm thick skins on both sides. Skeleton is made with Composite Board & Cement Bonded Particle Board (Bison Panel) of 30mm thickness (sides). Core of high density/ uniform load distribution featured Honey Comb and Laminated Veneer Lumber (LVL) for holding the lock body and hardware, laminated with 0.2mm thick water proof and scratch resistant PVC Foil and edge-banded with 1mm thick PVC edge-band using hot press and high grade PUR adhesives. Max opening dimensions in mm are 1100 (width) x 42 (thickness) x 2300 (height).	1 Sqm	11,812.00
619	TBSC-L.III-32	Supply and fixing of Bath/Toilet Door frame and shutter with 8mm Bison Lam(IS.15786) using with 50mmx35mmx1.3mm thick aluminium door frame of weight 220grm per Rft with a rebate of 30 mm for provision for shutter, shutter made with 45mmx25mmx1.3mm thick aluminium section of weight 210grms per Rft with 8mm groove to accommodate 8mm thick Bison lam(IS.15786) and shutter having 3nos of ss 304gr Butt hinges of 100mm long, 100mm aluminium handles -2nos, and also 2 nos of 200mmx12mm aluminium Aldrops ,the rates inclusive of all labor fixing at site and 50microns Ivory powder coated for aluminium door frame and shutter sections etc complete	1 Sqm	5,164.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		finished item of work .		
620	TBSC-L.III-33	Supply and fixing of Bath room / Toilet door shutter with 16mm BISON Lam (IS 15786) door shutter with all round 'U' lipping of PPS section of size 12mm X 18mmX 12mmX0.6mm thickness with a hardware of 12mm dia X200mm long aluminium aldrop - 2 nos (Jyothi make)2 No of 125mm long handles (Jyothi make) and also 3 no Of IS304 grade Patee Hinge s 3mmX12mmX180mm long with pole receiver of 10mm dia pole X40mm long welded on 2mm X40mm(ss304) plates works as receiver for RT patte hinges. The price inclusive of all material at site.	1 Sqm	3,341.00
621	TBSC-L.III-34	Providing and Fixing Doors Frames (Color Coated Steel Sections) & Shutter using Cement Bonded Particle Board as per IS 14276 (Bison Panel) : Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sqm) color coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Bison Panel) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, color coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Bison Panel) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldrop of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of lappum and two coats of synthetic enamel paint as per approved design for finished item of work	1 Sqm	4,784.00
622	TBSC-L.III-35	Supply of Good quality kiln seasoned solid African Teak wood Frame (with Threshold) of finished section 118x68mm with Architraves of 60x10mm and 20x10mm with PU polish for an opening size of 1200x2400 - Supply of 40mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	85,954.00
623	TBSC-L.III-36	Supply of Good quality kiln seasoned solid African Teak wood Frame (with Threshold) of finished section 118x68mm with Architraves	Each	1,00,766.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of 60x10mm and 20x10mm with PU polish for an opening size of 1200x2700 - Supply of 40mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.		
624	TBSC-L.III-37	Supply of Good quality kiln seasoned solid African Teak wood Frame (with Threshold) of finished section 118x68mm with Architraves of 60x10mm and 20x10mm with PU polish for an opening size of 1200x3000 - Supply of 40mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished	Each	1,19,326.00
625	TBSC-L.III-38	Supply of Good quality kiln seasoned solid African Teak wood Frame (with Threshold) of finished section 118x68mm with Architraves of 60x10mm and 20x10mm with PU polish for an opening size of 1200x2400 - Supply of 50mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished	Each	96,065.00
626	TBSC-L.III-39	Supply of Good quality kiln seasoned solid African Teak wood Frame (with Threshold) of finished section 118x68mm with Architraves of 60x10mm and 20x10mm with PU polish for an opening size of 1200x2700 - Supply of 50mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished	Each	1,12,175.00
627	TBSC-L.III-40	Supply of Good quality kiln seasoned solid African Teak wood Frame (with Threshold) of finished section 118x68mm with Architraves of 60x10mm and 20x10mm with PU polish for an opening size of 1200x3000 - Supply of 50mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished	Each	1,32,032.00
628	TBSC-L.III-41	Supply of 1200x2400 - 40mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	56,607.00
629	TBSC-L.III-42	Supply of 1200x2400 - 40mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	63,648.00
630	TBSC-L.III-43	Supply of 1200x3000- 40mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	70,688.00
631	TBSC-L.III-44	Supply of 1200x2400 -50mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	66,720.00
632	TBSC-L.III-45	Supply of 1200x2700 -50mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	75,057.00
633	TBSC-L.III-46	Supply of 1200x3000 - 50mm thick solid ITP Teak Shutter with 25mm Panel inserts and PU Polished.	Each	83,394.00
IV	SUB-SECTION	CUP-BOARD DOORS		
634	TBSC-L.IV-01	Supply and fixing of cup board frames and shutters and using 16mm Cement Bonded Particle Board conforming to IS 14276 duly painted both sides with one coat of primer and two coats of synthetic / enamel paint of	1 Sqm	2,631.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		approved shade and brand including fixing of hardware like M.S. powder coated Piano hinges of size 18mm x 18mm, brass ball catches, Aluminium tower bolts and handles , Godrej locks, synthetic glue, screws and nails including cost and conveyance of all materials, labour charges, all incidental and operational charges etc., complete for finished item of work at site as per the directions of Engineer in Charge.		
635	TBSC-L.IV-02	Supply and fixing of box type cup board using Cement Bonded Particle Board conforming to IS 14276 for making frame of size 100mm x 35mm using two sandwiched 16MM boards, one Cement Bonded Particle Board conforming to IS 14276 and one Cement Bonded Prelaminated Particle Board with plain 35mm wood lipping. The Shutters are made of 16MM thick Cement Bonded Prelaminated Particle Board (Pre-Laminated Cement Bonded Particle Board) of approved shade inclusive of hardware like M.S. powder coated Piano hinges of size $\frac{3}{4}$ " x $\frac{3}{4}$ " , Aluminium powder coated handles of size 4" (101.6mm), Aluminium tower bolt 4" (101.6mm) Godrej locks, screws, wood lipping and synthetic glue etc., complete finish item of work.	1 Sqm	4,322.00
636	TBSC-L.IV-03	Supply and fixing of PVC cupboards for kitchen and bedrooms shall be made out of multi chambered PVC sections having overall dimensions of 20 X 762mm with a wall thickness of 1.2mm $\pm$ 0.3mm. The cabinets shall be made as per the requirements of the room with groove system. The PVC section surface shall be plain and laminated finish to have good look, completed, for finished item of work for SINTEX OR equivalent PVC CABINETS	1 Sqm	4,208.00
637	TBSC-L.IV-04	Supply and fixing of cupboard shutter using teakwood scantling of size 50 mm x 50 mm teakwood as outer frame and 50 mm x 30 mm of size teakwood for shutter frames, 8mm thick Bison Lam as panel to each shutter consist of 2 Nos 75mm long tower bolt - 2 nos 75 mm big handle the and other shutter will have 1 no of cupboard lack , 1 No of 75 mm long handle and 75 mm x 10mm x 1mm thick SS hinges- 2 Nos for each shutter. The above frame will be fixed to the wall with screws, the rate inclusive of screws, handle, etc., complete at site of work	1 Sqm	4,780.00
638	TBSC-L.IV-05	Supply & erection of open shelves using cement bonded particle board (Bison Panel) confirming to IS 14276 with 20mm thick board for sides & shelves, 8mm back liner	1 Sqm	2,535.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with 15 "depth, Each shelf height 12" to 15" with all hardware screws & nails		
M	SECTION	WINDOWS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	OPENABLE WINDOWS		
639	TBSC-M.I-01	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter for sizes 2'0 x 4'0 (609.6 x 1219.2 mm) 3'-0 x 4'-0 (914.4mm x 1219.2 mm) without mullion section	1 Sqm	7,771.00
640	TBSC-M.I-02	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter with mullion section for sizes 3'-0 x 4'-0 (914.4mm x 1219.2 mm) and 4'-0 x 4'-0 (1219.2x1219.2mm)	1 Sqm	8,219.00
641	TBSC-M.I-03	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter 4'-0 x 4'-0	1 Sqm	7,995.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		(1219.2x12.19.2mm) without Mullion section		
642	TBSC-M.I-04	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.58 mm thick 'D' quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm paneled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutter with Mullion section for sizes 4'-6 x 4'-6 (1371.6x1371.6mm) 5'-0 x 4'-0 (1524x1219.2mm) and 6'-0 x 4'-0 (1828.8x1219.2mm) and 6'-0 x 4'-6 (1828.8x1371.6mm)	1 Sqm	7,325.00
643	TBSC-M.I-05	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Single shutter Window without vertical mullion for size 2'0"x4'0" (609.6mm x 1219.2mm)	1 Sqm	7,001.00
644	TBSC-M.I-06	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in	1 Sqm	7,442.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Double shutter Window with vertical mullion for sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
645	TBSC-M.I-07	Providing and fixing of Casement/ Open able Windows made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 48 x 50 mm, centre mullion of 48 x 50 mm, section for shutter of 48 x 25 mm and the fixed glass beading section should be 12 x 12 mm and the outer frame and mullions to have rebate for glazed shutter with a 20 mm provision for guard bars/grills, handle, stay, 2 nos. of stainless steel heavy duty pivot hinges provided per shutter and windows fitted with 5 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch etc., complete Centre fixed both side open able shutter window for sizes 5'0"x4'0" (1524mm x1219.2mm) and 6'0"x4'0" (1828.8mm x1219.2mm)	1 Sqm	6,558.00
646	TBSC-M.I-08	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm)	1 Sqm	9,283.00
647	TBSC-M.I-09	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x	1 Sqm	9,725.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Double shutter Window with vertical mullion of sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm) Three shutters with mullion section for sizes and 5'-0 x 4'-0(1524 x 1219.2mm) and 6'-0 x 4'-0(1828.8 x 1219.2mm)		
648	TBSC-M.I-10	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 5'0"x4'0" (1524mm x1219.2mm).	1 Sqm	8,843.00
649	TBSC-M.I-11	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.58 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh	1 Sqm	7,737.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and paneled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 6'0"x4'0" (1828.8mm x1219.2mm)		
650	TBSC-M.I-12	Providing & Fixing of Mesh windows made of pre-painted steel (Base Steel as per IS 513 of 0.58mm thick galvanized as per IS 277 primer coated with epoxy primer finish painted with a polyester paint, section for outer frame of 47 x 36 mm, centre mullion of 60 x 36 mm, section mesh beading 18 x 6 mm and Fly mesh shutter section of 20 x 40 mm, the sections cut to length meter joined with corner bracket and centre mullions fixed with mullion cap, handles, latch, 2 Nos of heavy duty stainless steel pivot hinges per S.S. Mesh for fly mesh shutter (304 grade) including fixing the frames in the concrete/masonry wall by means of self expanding screws complete for finished item of work.	1 Sqm	5,783.00
651	TBSC-M.I-13	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for Single open able shutter window size of 2' 0" x 4' 0" (609.6 x 1219.2mm)	1 Sqm	6,174.00
652	TBSC-M.I-14	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer	1 Sqm	6,562.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for Double open able shutter window Size of 3' 0" x 4' 0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)		
653	TBSC-M.I-15	Providing and fixing of Open able / Casement Windows made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 finish painted with a polyester paint and section for outer frame of 80 x 45 mm, centre mullion of 80 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, outer frame and mullions to have rebate for glazed shutter with a provision for guard bars/grills, centre mullion fixed with mullion cap, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 5'0 x 4'0 (1524 x 1219.2mm) and 6'0 x4'0 (1829.6 x 1219.2mm)	1 Sqm	5,783.00
654	TBSC-M.I-16	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including	1 Sqm	8,187.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 2' 0" x 4' 0" (609.6 x 1219.2mm)		
655	TBSC-M.I-17	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 3' 0" x 4' 0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)	1 Sqm	8,577.00
656	TBSC-M.I-18	Providing and fixing of Open able / Casement Windows with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277, finish painted with a polyester paint and section for outer frame of 100 x 45 mm, centre mullion of 100 x 60 mm, section for shutter of 52 x 25 mm x 0.6 mm thick, section for fly-shutter of 52 x 25 mm x 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and the sections, 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for 5'0 x 4'0 (1524 x 1219.2mm) and 6'0 x4'0 (1829.6 x 1219.2mm)	1 Sqm	7,798.00
657	TBSC-M.I-19	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120	1 Sqm	6,994.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self expanding screws, complete for finished item of work including of all taxes - 1220 x 1372 or below size		
658	TBSC-M.I-20	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 60x50mm, centre for mullion of 62x50mm, section for shutter of 52 x 22 mm, outer frame and mullions to have one side rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and window frames fixing to the concrete/masonry wall arrangement with self expanding screws, complete for finished item of work including of all taxes - 1530 x 1372 or above size	1 Sqm	6,266.00
659	TBSC-M.I-21	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass	1 Sqm	8,788.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self expanding screws, complete for finished item of work including of all taxes - 1220 x 1372 or below size		
660	TBSC-M.I-22	Galvanized powder coated Casement Windows with open able shutters duly manufactured using pressed steel sections in mild steel conforming to IS 513 of having 1.0 mm thick and galvanized as per IS 277 of 120 GSM surface treatment with pure polyester powder coating of 30-40 microns thick and section for outer frame of 88x50mm, centre for mullion of 62x88 mm, section for glass and fly-proof mesh shutter of 52 x 22 mm, outer frame and mullions to have two sides rebate for glazed shutter of size 24 mm and 10x10 mm square guard bars provided at 125 mm c/c the sections assembled with bolt & nut assembly with zinc-electroplated M-5 bolts, GI Handle of size 80 mm x 15 mm -1 No per shutter, 2 Nos of stainless steel heavy duty pivot hinges of size 3 of SS 304 Grade per shutter, window panes with 5 mm thick plain float glass and fixed with glass beading section of 10x12 mm size with 0.8 mm thick powder coated aluminium 'U' channel and fly-proof mesh of SS 304 grade fixed with 18 mm x 12 mm BT wood beading and window frames fixing arrangement to the concrete/masonry wall with self expanding screws, complete for finished item of work including of all taxes - 1530 x 1372 or above size	1 Sqm	8,079.00
661	TBSC-M.I-23	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows open able shutters duly manufactured using UPVC reinforced profiles of (48 mm x 60 mm)/ (58 mm x 60 mm) x 2.0 mm for outer frames, (64 mm x 60 mm)/(72 mm x 60mm) x 2.0 mm for mullion sections for two or more	1 Sqm	6,275.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		open able shutters and (78 mm x 60 mm)/(72 mm x 42 mm) x 2.0 mm for outward open able shutter frame or (70 mm x 60 mm)/ (72 mmx 42 mm) x 2.0 mm for inward open able shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
662	TBSC-M.I-24	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin) of 60 mm x 55 mm x 2.40 mm for outer frames, 74 mm x 60 mm x 2.40 mm for mullion sections for two or more openable shutters 75 mm x 60 mm x 2.40 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window - friction hinges of stainless steel grade 304/430- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories,	1 Sqm	7,521.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		labour charges for transportation, erection at site complete for finished item of work.		
663	TBSC-M.I-25	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) casement windows openable shutters duly manufactured using UPVC reinforced profiles of 60 mm x 60 mm x 2.60 mm for outer frames, 82 mm x 60 mm x 2.60 mm for Fix mullion ("T" or "Z")made of 60mm x 82mm uPVC profile section with steel reinforcement of size 35mm x 28mm x 1.5mm shall be provided in windows having fixed panel as per the requirement. The shutter of outward open able window shall be made of size 60mm x 77mm or for inward open able window shall be made of size 60mm x 78mm; "T" shaped for outward open or "Z" shaped for Inward open extruded 3 box multi-chamber uPVC window profile section of white colour having outer wall thickness of 2.6mm (± 0.2 mm) provided with reinforcement of minimum 1.5mm thick G/J/U/S/O type GI section prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and accessories for casement window - friction hinges of stainless steel grade 304- 2 Nos., per sash, handle 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,739.00
		Supply and fixing of Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS with Pre-Painted Steel Sections fabricated from pre-painted Cold rolled formed sections made of galvanized steel color coated sections {Base steel as per IS-512 quality, galvanized as per IS-277 with Zinc of 120 gram/sqm) with total coated thickness of 0.58mm primer coated with epoxy primer of 5-7 microns thick, finish painted with polyester paint of 12-16 microns and back coated with alkyd backer of 5-7 microns), the sections for outer frame and centre mullion (duly filled with PU foam of 40 kg/Cum) should be of 60mm x 50mm, with provision for fixing glazed shutter. The section for glazed/paneled shutter should be		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of size 48mm x 25 mm and another section of size 60mm x 23mm should be provided for separating glazed and paneled portion 5 mm thick colour pin headed glass is to be provided for glazing and providing guard bars of 10mm square rods duly welded at 150mm pitch to MS flat section of size 18mm and 3mm thick. Windows are to be fixed to wall by means of self expansion nylon Cap (75) and electroplated wooden screws of size 100mm, including aluminum powder coated fittings, A) 75mm long grip handles 1 no per shutter, B) 75 mm long tower bolts 2 nos. per shutter, C) Heavy duty 55 Pivot hinges 2 nos per shutter, D) MS Powder coated telescopic stay 1no per shutter.		
664	TBSC-M.I-26	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS — Single shutter 2'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm	1 Sqm	8,270.00
665	TBSC-M.I-27	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS —Double shutter 3'0" x 4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm mullion section size of 50mm x 60mm for outer frame	1 Sqm	8,270.00
666	TBSC-M.I-28	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS — Double shutter 3'0" x 3'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	8,270.00
667	TBSC-M.I-29	Pre Laminated Cement Bonded Particle Board (as per IS-14276) WINDOWS WITH PPS SECTIONS — Double shutter 4'0"x4'0" outer frame section size of 50mm x 60mm shutter frame section size of 48mm x 25mm Mullion section size of 50mm x 60mm for outer frame.	1 Sqm	8,270.00
668	TBSC-M.I-30	Cement Bonded Particle Plank - Bison Planks- 8 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	673.00
669	TBSC-M.I-31	Cement Bonded Particle Plank - Bison Planks - 10 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	825.00
670	TBSC-M.I-32	Cement Bonded Particle Plank - Bison Planks - 12 mm - Available size - 150 mm X 2440 mm and 200 mm X2440mm	1 Sqm	1,009.00
671	TBSC-M.I-33	Cement Bonded Particle Board Conforming to Is 14276 - 18 Mm Thick	1 Sqm	815.00
672	TBSC-M.I-34	Pre-Laminated Cement Bonded Particle Board (Bison Lam) Conforming to Is 15786 - 18 Mm Thick	1 Sqm	1,156.00
673	TBSC-M.I-35	Cement Bonded Particle Designer Board	1 Sqm	319.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		(Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 6mm Thickness		
674	TBSC-M.I-36	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 8 Mm Thickness	1 Sqm	385.00
675	TBSC-M.I-37	Cement Bonded Particle Designer Board (Bison Panel- Is 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 10mm Thickness	1 Sqm	483.00
676	TBSC-M.I-38	Cement Bonded Particle Designer Board (Bison Panels 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' - 12mm Thickness	1 Sqm	592.00
677	TBSC-M.I-39	Cement Bonded Particle Designer Board (Bison Panel s 14276) Available Designs 1. Lumber 2. Quadra 3. Murk, Standard Size 8'x4' 16mm Thickness	1 Sqm	780.00
678	TBSC-M.I-40	50 mm Thick wall panels (sandwich wall panels) with 5 mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials.	1 Sqm	863.00
679	TBSC-M.I-41	75 mm Thick wall panels (sandwich wall panels) with 5 mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials	1 Sqm	1,294.00
680	TBSC-M.I-42	100 mm Thick wall panels (sandwich wall panels) with 5mm thick Cement bonded particle boards Facings and light weight EPS concrete as core materials.	1 Sqm	1,940.00
II	SUB-SECTION	SLIDING WINDOWS		
681	TBSC-M.II-01	Providing and fixing 2 Track 2 glass shutter sliding Windows fabricated from roll formed sections made of Galvanized Steel Colour Coated/ Powder Coated (Base Steel as per IS 513 "D" quality, Galvanized as per IS 277 with Zinc of 120 GM/Sq.mtr) with total coated thickness of 0.58 mm. Primer coat with epoxy primer of 5-7 micron thick, finish painted with polyester paint of 12-16 microns thick and back coated with alkyd backer of 5-7 microns or Powder Coated with pure Polyester Powder up to 50-60 microns thick. Section for external frame should be of 44 x 59mm, Section for glass shutter should be of 35 x 49 mm Section for euro groove should be 25 x 24mm (Aluminium/Plastic) and Lap Strip should be of 30 x 41mm (Aluminium/Plastic). shutter should be provided with a glass of 5mm Plain Float Glass. Corner bracket for External frame made of Steel/Polypropylene, Corner Bracket for Internal frame made of Steel/Polypropylene, Touch Lock, Rollers, wool pile for lap strip & euro groove, Bump Stop Base & Rubber for shutter stopper. Ethyl	1 Sqm	8,345.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Propylene Diamine Monomer (EPDM) Gasket should be used all around glass in shutter. The Frame Section should be cut to length and mitre joined with Corner brackets & Shutter Sections should be cut to length and mitre joined with Corner Bracket. Window Frame should be fixed to brick/ concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm long screws into the caps through frames. 10mm square guard bars with 6" pitch (152.4mm) max to be fixed wall to wall and all taxes complete for finished item of work		
682	TBSC-M.II-02	Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 with powder coated with Pure polyester powder up to 50-60 microns thick with total coated thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks without grill provision is of 75 mm x 50 mm and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with Two Sliding Shutters and without Grill	1 Sqm	5,657.00
683	TBSC-M.II-03	Providing and fixing of Two shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 with powder coated with Pure polyester powder up to 50-60 microns thick with total coated thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, the Outer Frame for Two Tracks with Grill provision size of 90 mm x 50 mm and the Window Shutter section of 58 mm x 36 mm and the outer Frame with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass	1 Sqm	6,273.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with Two Sliding Shutters and with Grill		
684	TBSC-M.II-04	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for i) Centre Shutter Fixed: centre shutter frame made of section with size 20mm x 47mm should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.	1 Sqm	6,626.00
685	TBSC-M.II-05	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using	1 Sqm	7,256.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for ii) Centre Shutter Sliding: centre shutter frame made of section of size 20mm x 47mm should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick and iii) Centre Fly mesh Shutter Sliding: Section for Fly mesh Shutter frame should be of size 20mm x 40mm of 0.58mm thick and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm and 29mm x 20mm of 0.58mm.		
686	TBSC-M.II-06	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. i) Centre Shutter Fixed: centre shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5mm thick plain float glass of reputed make, EPDM gasket all around the glass and fixed to the Outer	1 Sqm	5,942.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Frame with the supporting section of size 29mm x 20mm of 0.58mm thick fixed horizontally on top and bottom of the shutter frame.		
687	TBSC-M.II-07	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. ii) Centre Shutter Sliding: centre shutter frame made of section with size 20mm x 47mm of 0.58mm thick should be fitted with 5 mm thick plain float glass of reputed make. The supporting guide section of size 15mm x 19mm of 0.58mm thick fixed horizontally at top and bottom of shutter frame and slides along the bottom and top guide tracks made of sections size 24mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.	1 Sqm	6,502.00
688	TBSC-M.II-08	Providing and fixing of Three shutter Sliding Windows made of Galvanized Steel as per IS 513, D quality, galvanized as per IS 277 powder coated with Pure polyester powder and thickness of 0.8 mm for Outer Frame and 0.58 mm thickness for Sliding Shutter Section, with two integrated guide tracks of 12mm width and 24mm deep for provision to slide the Shutter / sash frame and facilitates with a water drain outlet component made of PVC and the shutter frame fitted with 5mm thick plain float glass of reputed make and fixed with EPDM weathering seal resistant accessories and handle made of Aluminium 1 No. per each shutter and including installation of window system at site using anchor fasteners, Silicon sealant applied at	1 Sqm	6,502.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		the Outer frame corners inclusive of conveyance of all materials accessories, labour charges, and erection at site with complete finished item of work for Window with 3 shutters (Centre fixed shutter / Centre sliding shutter / centre Fly mesh shutter) and without Grill Window made of Outer Frame of size 90mm x 50mm. iii) Centre Fly mesh Shutter Sliding: Section for Fly mesh shutter frame should be of size 20mm x 40mm and fitted with SS mesh (304 Grade). The supporting guide section of size 29mm x 20mm of 0.58mm thick at the bottom and 15mm x 19mm of 0.58mm thick at the top fixed horizontally to the Fly mesh frame and slides along the bottom and top guide tracks made of sections size 20mm x 20mm of 0.58mm thick and 29mm x 20mm of 0.58mm thick.		
689	TBSC-M.II-09	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles(Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (62 mm x 60 mm)/(60 mm x 45 mm) x 2.20 mm for outer frames, (66 mm x 38 mm)/(58 mm x 39 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6,818.00
690	TBSC-M.II-10	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter provision - (only 2-glass shutters) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (80 mm x 52 mm)/(94 mm x 45 mm) x 2.20 mm for outer frames, (54 mm x 38 mm)/(39 mm x 58 mm)	1 Sqm	6,396.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work		
691	TBSC-M.II-11	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 3 track sliding windows with mesh shutter - (2-glass shutters and 1-mesh shutter) duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin) of (94 mm x 45 mm)/(80 mm x 52 mm) x 2.20 mm for outer frames, (58 mm x 39 mm)/(54 mm x 38 mm) x 2.20 mm for sliding shutter frames capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make and mesh shutter frame shall be (42 mm x 25 mm)/(52 mm x 21.5 mm) x 2.0 mm fitted with Vinyl Coated Fibre mesh- on rollers/ pulley duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,119.00
692	TBSC-M.II-12	DELETED		Deleted
693	TBSC-M.II-13	Providing and Fixing Pre painted Steel Sliding Windows / Doors - 3 track sliding window /doors shutter with mesh shutter - (2 - glass shutters and 1 - mesh shutter) fabricated from Roll formed sections made of galvanized Steel colour coated/powder coated (Base	1 Sqm	9,225.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Steel as per IS 513 'D' quality, galvanized as per IS 277 with zinc of 120 GM/Sq.mtr) with total coated thickness of 0.58mm. Primer coat with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns or powder coated with pure polyester powder up to 50-60 microns thick. Section for external frame should be of 44 x 107mm .Section for glass shutter and mesh shutter in case of door should be of 35 x 67 mm Section for euro groove should be 25 x 31mm (Aluminium/ Plastic) (in case of window sections should be 35 x 49 mm and 25 x 24 mm and 30 x 41 mm) and Lap Strip should be of 39 x 41mm (30 x 41 mm & Touch lock for window) (Aluminium/ Plastic. The doors/ windows should be paneled with 5mm thick plain float glass. Corner bracket for internal and external frame made of glass filled nylon. Gaskets are to be made of Ethyl Propylene Diamine Monomer (EPDM).The sections are to be cut to length, joined and assembled by means of corner bracket. The above frames should be fixed to the concrete/masonry walls by means of self expanding brackets & screws including 10mm square guard bars with 6" pitch (152.4mm) (in case of windows only) and all Taxes complete for finished item of work.		
694	TBSC-M.II-14	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows duly manufactured using UPVC reinforced profiles of 60 mm x 49 mm x 2.20 mm for outer frames, 62 mm x 41 mm x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with 30 mm 15 mm x 1.5 mm with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with Grey colour TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	7,013.00
695	TBSC-M.II-15	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) 2 Track-2 Panel Sliding windows with mesh duly manufactured using	1 Sqm	8,118.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		UPVC reinforced profiles of 91 mm x 49 mm x 2.20 mm for outer frames, 62 mm x 41 mm x 2.20 mm for sliding shutter frames capable of mounting single glazing system, structurally reinforced with 30 mm 15 mm x 1.5 mm with hot dip galvanized up to 50 microns of minimum thickness of 1.0/1.2 mm and the shutter of fly screen with fibre mesh shall be made of size 21mm x 58mm extruded uPVC window profile section of white colour having outer wall thickness of 2.2mm ($\pm$ 0.3mm) provided with reinforcement of minimum 1.5mm thick G/J/U/S/O type GI section duly mitred cut and thermal welded at all corners and prefabricated & welded through fusion welding. The window sash shall be fitted with 5 mm thick clear float glass of reputed make & Glazing bead shall be co-extruded with Grey colour soft PVC. System shall have single point locking with Touch Lock and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
III	SUB-SECTION	VENTILLATORS		
696	TBSC-M.III-01	Supply and fixing of pre-painted steel top hung and fixed louvered ventilators made of pre - painted steel as per IS 513 of -0.58 mm thick 'D' quality, galvanized as per IS 277, finish painted with a polyester paint & 4 mm pinhead glass for ventilators with EPDM Gasket with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars with 6 pitch complete for finished item of work for (i) Ventilators: Top Hung 2'-0 x 2'-0 (609.6x609.6mm) outer frame section size of 46mm x 52 mm shutter frame section size of 46mm x 46 mm and (ii) Ventilators: Top Hung 4'-0 x 2'-0 (1219.2x609.6mm) outer frame section size of 46 x 52 m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm and (iii) Ventilators: Top Hung 4'-0 x 3'-0 (1219.2x914.4mm) outer frame section size of 46 x 52m m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	8,521.00
697	TBSC-M.III-02	Supply and fixing of pre-painted steel top hung and fixed louvered ventilators made of pre - painted steel as per IS 513 of -0.58 mm	1 Sqm	5,828.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint & 4 mm pinhead glass for ventilators with EPDM Gasket with handle made of high grade aluminium powder coated and nylon receiver, corner brackets made of CRCA with Zinc Phosphate, Mullion caps made of glass filled nylon, frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars with 6 pitch complete for finished item of work for (i) Ventilators: Fixed louvers 2'-0 x 2'-0 (609.6x609.6mm)(Box section) outer frame section size of 33 x 56 mm and (ii) Ventilators: Fixed louvers 4'-0 x 2'-0 (1219.2 x 609.6 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm and (iii) Ventilators: Fixed louvers 4'-0 x 3'-0 (1219.2 x 914.4 mm) (Box section) outer frame section size of 33 x 56 mm Mullion section size of 33 x 56 mm		
698	TBSC-M.III-03	Providing and fixing of top hung Ventilators made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with a polyester paint with 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single open able ventilator shutter size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm thick and (ii) Double open able ventilator shutter Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 80 x 45mm, shutter frame section size of 52 x 25mm, vertical mullion section size of 80 x 60 mm and (iii) Double open able fix shutter size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size of 80 x 45mm , shutter frame section size of 52 x 25 mm ,Vertical mullion section size of 80 x 60 mm	1 Sqm	7,406.00
699	TBSC-M.III-04	Providing and fixing of louvered Ventilators made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with a polyester paint with and fitted with 4 mm thick plain float glass including fixing the frames in concrete/masonry wall by means of self expanding screws, etc., complete for finished item of work for (i) Single fixed	1 Sqm	5,072.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Louvers Ventilator size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 80 x 45mm and (ii) Double fixed Louvers ventilator Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 80 x 45mm, vertical mullion section size of 80 x 60 mm and (iii) Double fixed Louvers Ventilator size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size of 80 x 45mm , Vertical mullion section size of 80 x 60 mm		
700	TBSC-M.III-05	Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc, finish painted with a polyester paint, section for fly-shutter of 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and 1 No. of High grade nylon latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single open able ventilator shutter window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame section size of 100 x 45mm, Glazed and fly mesh shutter frame section size of 52 x 25mm thick and (ii) Double open able ventilator shutter window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame section size of 100 x 45mm, Glazed and fly mesh shutter frame section size of 52 x 25mm, vertical mullion section size of 100 x 60 mm and (iii) Double open able fix shutter window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame section size 100 x 45mm , Glazed and fly mesh shutter frame section size 52 x 25 mm ,Vertical mullion section size of 100 x 60 mm	1 Sqm	9,161.00
701	TBSC-M.III-06	Providing and fixing of top hung Ventilator with fly mesh made of pre-painted steel as per IS 513 of 0.80 mm thick galvanized as per IS 277 with Zinc, finish painted with a polyester paint, section for fly-shutter of 0.6 mm thick and fitted with stainless steel 32 gauge fly mesh of 304 grade and mullions to have double rebate for glazed shutter and fly-shutter with a provision for guard bars/grills and 1 No. of High grade nylon	1 Sqm	6,174.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		latch handle, window stopper, 2 nos. of with MS Powder coated /SS ball bearing butt Hinges provided per shutter and windows fitted with 4 mm thick plain float glass with rubber gaskets including fixing the frames in concrete/masonry wall by means of self expanding screws, Including 10 mm Square guard bars with 6" (152.4mm) pitch etc., complete for finished item of work for (i) Single fixed Louvers Ventilator window size of 2' 0" x 2' 0" (609.6 x 609.6mm) outer frame box section size of 100 x 45mm, fly mesh shutter frame section size 52 x 25 mm and (ii) Double fixed Louvers ventilator window Size of 4' 0" x 2' 0" (1219.2mm x 609.6mm) outer frame box section size of 100 x 45mm, fly mesh shutter frame section size 52 x 25 mm, vertical mullion section size of 100 x 60 mm and (iii) Double fixed Louvers Ventilator window size of 4'0" x 3'0" (1219.2mm x 914.4mm) outer frame box section size 100 x 45mm , fly mesh shutter frame section size 52 x 25 mm Vertical mullion section size of 100 x 60 mm		
702	TBSC-M.III-07	Providing, supplying & fixing of Fixed Louvered Ventilator made out of multi chambered uPVC sections with Glazing bead shall be co-extruded with Grey colour soft PVC. having isolated drainage and reinforced with Galvanized Iron profiles throughout the window. The outer frame having an overall size of 60 mm x 55 mm x 2.40 with reinforcement of 1 mm thickness and Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm thickness. (Composition of profile shall consists a minimum of 5.5 PHR of TiO2 and not more than 12 PHR of CaCo3 for every 100 parts of PVC resin).Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware. Wall thickness of frame & Mullion shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.	1 Sqm	6,407.00
703	TBSC-M.III-08	Providing, supplying & fixing of Top hung Ventilator With Exhaust Fan Provision made out of multi chambered uPVC sections with TPV Gasket for sash & Glazing bead shall be co-extruded with Grey colour soft PVC and reinforced with Galvanized Iron profiles throughout the window. The outer frame having a overall size of 60mm x 55 mm x 2.40 mm with reinforcement of 1 mm thickness, Mullion with overall size of 74 mm x 60 mm x 2.40 mm with reinforcement of 1 mm	1 Sqm	9,014.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thickness and Sash with overall size of 75 mm x 60 mm x 2.40 mm with reinforcement of 1.0/1.2 mm thickness. (Composition of profile shall consists a minimum of 5.5 PHR of TiO ₂ and not more than 12 PHR of CaCo ₃ for every 100 parts of PVC resin).Glazing bead for fixing of glass shall be of size 34 x 20 mm coextruded with soft PVC gasket. Ventilator shall be provided with 4.5 mm Pin Head glass, standard hardware, single point locking using cockspur handle and friction stays. Wall thickness of frame, mullion and sash shall be 2.4 mm., including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site complete for finished item of work.		
704	TBSC-M.III-09	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 13 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Double shutter Window with vertical mullion of sizes 3'0" x 4'0" (914.4mm x 1219.2mm) and 4'0" x 4'0" (1219.2mm x 1219.2mm)	1 Sqm	11,874.00
705	TBSC-M.III-10	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber	1 Sqm	10,797.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , complete for Centre fixed both side open able shutter window for a size 5'0"x4'0" (1524mm x1219.2mm).		
706	TBSC-M.III-11	Providing & Fixing of Open able Windows with Fly-mesh made of pre-painted steel as per IS 513 of 0.72 mm thick galvanized as per IS 277 finish painted with a polyester paint and the section for outer frame of 72 x 55mm, centre mullion of 72 x 50mm, section for fixed glass beading section of 12 x 12 mm and section for shutters of 48 x 25 mm and outer frame & mullion sections with rebate for glazed shutters, fly mesh and a 20 mm provision for guard bars/grills and fly mesh shutter section of 20 x 40 mm, stay, handles, latch 2 Nos of heavy duty stainless steel pivot hinges per shutter and panelled with 5mm thick plain float glass and S.S. Mesh for fly mesh shutter (304 grade), fitted using rubber gaskets including fixing the windows in the concrete/masonry wall by means of self expanding screws, including 10mm Square guard bars with 6" (152.4mm) pitch , Centre fixed both side open able shutter window for a complete for a size 6'0"x4'0" (1828.8mmx1219.2mm)	1 Sqm	9,446.00
707	TBSC-M.III-12	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.72 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Double shutters with mullion section for sizes 3'-0 x 4'-0 (914.4mm x 1219.2 mm) and 4'-0 x 4 '-0 (1219.2 x 1219.2mm) Three shutters with mullion section for sizes and 5'-0 x 4'-0(1524 x 1219.2mm) and 6'-0 x 4'-0(1828.8 x 1219.2mm)	1 Sqm	9,895.00
708	TBSC-M.III-13	Supply and fixing of pre-painted steel casement/ open able windows base steel as per IS 513 of - 0.72 mm thick 'D quality, galvanized as per IS 277, finish painted with a polyester paint, section for outer frame of 46 x 52 mm section for shutter of 46 x 46 mm	1 Sqm	8,818.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		section for mullion 46 x 70 mm, and section for beading 18 x 25 mm panelled with 5 mm thick plain float glass fitted with EPDM gaskets, handle made of high grade aluminium powder coated frames fixed to the concrete /masonry wall by means of self expanding screws including 10 mm square guard bars @ 150 mm pitch for Windows: Center Fixed with sides openable windows Mullion section for sizes:5'-0 x 4'-0 (1524x1219.2mm) and 6'-0 x 4'-0 (1828.8x1219.2mm) and 6'-0 x 4'-6 (1828.8x1371.6mm)		
N	SECTION	STRUCTURAL GLAZING & CURTAIN WALLING		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	FIXED GLAZING		
709	TBSC-N.I-01	Supplying and fixing of curtain Glazing made of pre painted steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 Primer coated with epoxy, finish painted with a polyester paint using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with EPDM gaskets including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self expanding screws, etc., complete for finished item.- Fixed Glazing 2'-0 x 2'-0 (609.6x609.6mm) and Fixed Glazing 2'-0 x 3'-0 (609.6x914.4mm)	1 Sqm	7,397.00
710	TBSC-N.I-02	Supplying and fixing of curtain Glazing made of pre painted steel as per IS 513 of 0.58 mm thick D quality, galvanized as per IS 277 Primer coated with epoxy, finish painted with a polyester paint using the section for outer frame of 46 x 52 mm, section for mullion of 46 x 70 mm and section for beading of 18 x 25 mm and the glazing with 5 mm thick plain float glass fitted with EPDM gaskets including handle made of high grade Aluminium powder coated and nylon receiver, corner brackets made of CRCA with zinc phosphating, mullion caps made of Glass filled nylon including fixing the frames in the concrete / masonry wall with self expanding screws, etc., complete for finished item.- Fixed Glazing 3'-0 x 3'-0 (914.4x914.4mm) and Fixed Glazing 3'-0 x 4'-0 (914.4x1219.2mm)	1 Sqm	6,277.00
711	TBSC-N.I-03	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing - 48	1 Sqm	3,143.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		series duly manufactured using UPVC reinforced profiles of 60 mm x 48 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 76 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work		
712	TBSC-N.I-04	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.25 mm for outer frames and the mullion sections are of 60 mm x 70 mm x 2.25 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	3,756.00
713	TBSC-N.I-05	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Fixed Glazing/ Window duly manufactured using UPVC reinforced profiles of 60 mm x 60 mm x 2.60 mm for frames and the mullion sections are of 60 mm x 82 mm x 2.60 mm frames are structurally reinforced with hot dip galvanized up to 50 microns of size 35 mm x 28 mm of thickness 1.5 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant and glazing bead 34.5 mm x 18 mm including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing complete for finished item of work	1 Sqm	4,710.00
II	SUB-SECTION	STRUCTURAL GLAZING		
714	TBSC-N.II-01	Providing and fixing Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated base steel as per IS 513 of 'D' quality, galvanized as per IS 277 and the glass holding section made of 304 grade stainless steel or 0.58 mm thick galvanized steel section as stiffeners inside the colour coated steel powder coated sections as per the design requirement &	1 Sqm	8,843.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		calculations to suit wind pressures as given in IS: 875, the primer coat with epoxy primer, finish painted with a polyester paint or powder coated with pure polyester powder and the vertical section of 50 mm x 99 mm x 0.72 mm, 33 mm x 56 mm x 0.72 mm for frame horizontal section, stiffener section of 47 mm x 97 mm x 1 mm, cover profiles sections of 20 mm x 58 mm x 0.58 mm, glass holding section of 37 mm x 37 mm & 37 mm x 18 mm including fixing 5mm thick Ocean Blue reflective glass, brackets made of CRCA powder coated/Electroplated to connect vertical to horizontal, vertical to slab, to fix verticals at top & bottom as per site requirement and EPDM gasket, U.V. resistant silicon sealant including fixing in concrete/masonry wall with self-expanding cap & screws inclusive of cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges excluding scaffolding complete for finished item of work.		
715	TBSC-N.II-02	Providing and fixing Top Hung shutters in Structural Glazing fabricated from Roll formed sections made of Pre-painted Steel / Powder coated base steel as per IS 513 of 'D' quality, galvanized as per IS 277 and the glass holding section made of 304 grade stainless steel or 0.58 mm thick, duly providing stiffeners inside the colour coated steel/powder coated sections as per the design requirement, calculations to suit wind pressures as given in IS 875 and primer coat with epoxy primer and powder coated with pure polyester powder up to 50-60 microns thick and the outer frame of 20 mm x 58 mm x 0.58 mm, shutter sections of 57 mm x 33 mm x 0.72 mm, stiffener sections of 55 mm x 31 mm x 1mm, hinges - 2 Nos for each shutter and aluminium Stays - 2 Nos. for each shutter, aluminium Handle - 1 no. for each shutter including cost and conveyance of all materials to site, all labour charges, incidental charges, cost of all consumables etc. and fixing charges etc excluding scaffolding complete for finished item of work	1 Sqm	7,246.00
III	SUB-SECTION	CURTAIN WALLING		
716	TBSC-N.III-01	Supplying and fixing of Unplasticized Poly Vinyl Chloride (UPVC) Curtain Walling systems duly manufactured using UPVC reinforced profiles of 60 mm x 56 mm x 2.5 mm for outer frames, 60 mm x 70 mm x 2.5 mm for casement shutter frames and the	1 Sqm	6,694.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		mullion sections are of 60 mm x 70 mm x 2.5 mm or 60 mm x 62 mm x 2.5 mm for sliding shutter outer frames and 77 mm x 38 mm x 2.5 mm for sliding shutter frames structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1 mm the sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with EPDM weathering seal resistant and accessories for casement window - friction stay hinges of stainless steel grade 304- 2 Nos., per sash, handle with mazak alloy casting 1 No. per sash, multipoint locking system suitably concealed 1 No., per sash provided with raiser wedges for smooth operation for sliding window - clipping locking system 1 No. made of aluminium including cost and conveyance of all materials, accessories, labour charges for transportation, erection at site with templates for casement sizing excluding scaffolding complete for finished item of work		
P	SECTION	FIXTURES FOR DOORS & WINDOWS		
		(Excluding taxes but including cost of loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	TOWER BOLTS		
717	TBSC-P.I-01	Brass Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	197.00
718	TBSC-P.I-02	Brass Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	287.00
719	TBSC-P.I-03	Brass Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	383.00
720	TBSC-P.I-04	Brass Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	476.00
721	TBSC-P.I-05	Brass Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	585.00
722	TBSC-P.I-06	Aluminium Tower Bolt-10 mm Bolt (IS:204) 75 mm Long	Each	55.00
723	TBSC-P.I-07	Aluminium Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	62.00
724	TBSC-P.I-08	Aluminium Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	82.00
725	TBSC-P.I-09	Aluminium Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	97.00
726	TBSC-P.I-10	Aluminium Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	118.00
727	TBSC-P.I-11	Aluminium Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	134.00
728	TBSC-P.I-12	Aluminium Tower Bolt-10 mm Bolt (IS:204) 350 mm Long	Each	351.00
729	TBSC-P.I-13	Aluminium Tower Bolt-10 mm Bolt (IS:204) 450 mm Long	Each	457.00
730	TBSC-P.I-14	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 100 mm Long	Each	31.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
731	TBSC-P.I-15	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 150 mm Long	Each	44.00
732	TBSC-P.I-16	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 200 mm Long	Each	64.00
733	TBSC-P.I-17	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 250 mm Long	Each	83.00
734	TBSC-P.I-18	MS-Powder Coated Tower Bolt-10 mm Bolt (IS:204) 300 mm Long	Each	104.00
735	TBSC-P.I-19	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 75 mm Long	Each	103.00
736	TBSC-P.I-20	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 100 mm Long	Each	118.00
737	TBSC-P.I-21	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 150 mm Long	Each	179.00
738	TBSC-P.I-22	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 200 mm Long	Each	235.00
739	TBSC-P.I-23	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 250 mm Long	Each	294.00
740	TBSC-P.I-24	Stainless Steel Tower Bolt-10 mm Bolt (IS:15833) 300 mm Long	Each	351.00
II	SUB-SECTION	HINGES		
741	TBSC-P.II-01	Brass Butt hinges (IS:205)- 75 mm Long	Each	82.00
742	TBSC-P.II-02	Brass Butt hinges (IS:205)- 100 mm Long	Each	265.00
743	TBSC-P.II-03	Brass Butt hinges (IS:205)- 125 mm Long	Each	322.00
744	TBSC-P.II-04	Brass Butt hinges (IS:205)- 150 mm Long	Each	424.00
745	TBSC-P.II-05	Aluminium Butt hinges (IS:205)- 75 mm Long	Each	62.00
746	TBSC-P.II-06	Aluminium Butt hinges (IS:205)- 100 mm Long	Each	80.00
747	TBSC-P.II-07	Aluminium Butt hinges (IS:205)- 125 mm Long	Each	95.00
748	TBSC-P.II-08	Aluminium Butt hinges (IS:205)- 150 mm Long	Each	114.00
749	TBSC-P.II-09	MS-Powder Coated Butt hinges (IS:205)- 75 mm Long	Each	15.00
750	TBSC-P.II-10	MS-Powder Coated Butt hinges (IS:205)- 100 mm Long	Each	27.00
751	TBSC-P.II-11	MS-Powder Coated Butt hinges (IS:205)- 125 mm Long	Each	40.00
752	TBSC-P.II-12	MS-Powder Coated Butt hinges (IS:205)- 150 mm Long	Each	49.00
753	TBSC-P.II-13	Deluxe window stay Aluminium	Each	161.00
754	TBSC-P.II-14	Brass Windows Stay	Each	249.00
755	TBSC-P.II-15	GI Powder Coated Friction stay hinges of 10" Long for windows	Each	256.00
756	TBSC-P.II-16	Continuous Piano Hinges Powder coated Mild steel as per IS-3818 : 1992 of nominal size 25 mm (B) of thickness 0.8 to 1.0 mm	1 RM	41.00
757	TBSC-P.II-17	Box hinges for cup boards	1 Each	51.00
758	TBSC-P.II-18	GI Powder Coated Friction stay hinges of 14" Long for windows	1 Each	360.00
759	TBSC-P.II-19	Stainless Steel Butt hinges (IS:12817)- 75 mm Long	Each	78.00
760	TBSC-P.II-20	Stainless Steel Butt hinges (IS:12817)- 100 mm Long	Each	113.00
761	TBSC-P.II-21	Stainless Steel Butt hinges (IS:12817)- 125 mm Long	Each	144.00
762	TBSC-P.II-22	Stainless Steel Butt hinges (IS:12817)- 150 mm Long	Each	180.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
III	SUB-SECTION	DOOR HANDLES		
763	TBSC-P.III-01	Aluminium Door Handles (IS:208) 75 mm Long	Each	55.00
764	TBSC-P.III-02	Aluminium Door Handles (IS:208) 100 mm Long	Each	65.00
765	TBSC-P.III-03	Aluminium Door Handles (IS:208) 125 mm Long	Each	92.00
766	TBSC-P.III-04	Aluminium Door Handles (IS:208) 150 mm Long	Each	108.00
767	TBSC-P.III-05	MS-Powder Coated Door Handles (IS:208) 125 mm Long	Each	40.00
768	TBSC-P.III-06	MS-Powder Coated Door Handles (IS:208) 150 mm Long	Each	56.00
769	TBSC-P.III-07	Brass fancy handles 150 mm	Each	370.00
770	TBSC-P.III-08	Brass fancy handles 200 mm	Each	500.00
771	TBSC-P.III-09	Brass fancy handles 250 mm	Each	902.00
772	TBSC-P.III-10	Brass fancy handles 300 mm	Each	1,150.00
773	TBSC-P.III-11	Brass fancy handles 450 mm	Each	1,798.00
774	TBSC-P.III-12	Keyless lockset for toilet doors with CP or PC knob handles (complete set)	Each	379.00
775	TBSC-P.III-13	Keyless lock set for toilet doors with brass knob handles	Each	1,014.00
776	TBSC-P.III-14	Hard Nylon Window Handle	Each	79.00
777	TBSC-P.III-15	Stainless Steel Door Handles 100 mm Long	Each	116.00
778	TBSC-P.III-16	Stainless Steel Door Handles 125 mm Long	Each	138.00
779	TBSC-P.III-17	Stainless Steel Door Handles 150 mm Long	Each	168.00
780	TBSC-P.III-18	Stainless Steel Door Handles 200 mm Long	Each	189.00
IV	SUB-SECTION	ALDROPS		
781	TBSC-P.IV-01	Brass Aldrops (IS:2681) 300 mm long	Each	1,411.00
782	TBSC-P.IV-02	Brass Aldrops (IS:2681) 350 mm long	Each	2,718.00
783	TBSC-P.IV-03	Brass Aldrops (IS:2681) 450 mm long	Each	3,869.00
784	TBSC-P.IV-04	Aluminium Aldrops (IS:2681) 200 mm long	Each	202.00
785	TBSC-P.IV-05	Aluminium Aldrops (IS:2681) 250 mm long	Each	234.00
786	TBSC-P.IV-06	Aluminium Aldrops (IS:2681) 300 mm long	Each	256.00
787	TBSC-P.IV-07	MS-Powder Coated Aldrops (IS:2681) 200 mm long	Each	128.00
788	TBSC-P.IV-08	MS-Powder Coated Aldrops (IS:2681) 250 mm long	Each	165.00
789	TBSC-P.IV-09	MS-Powder Coated Aldrops (IS:2681) 300 mm long	Each	198.00
790	TBSC-P.IV-10	Stainless Steel Aldrops (IS:15834) 200 mm long	Each	284.00
791	TBSC-P.IV-11	Stainless Steel Aldrops (IS:15834) 250 mm long	Each	334.00
792	TBSC-P.IV-12	Stainless Steel Aldrops (IS:15834) 300 mm long	Each	367.00
V	SUB-SECTION	LATCHES		
793	TBSC-P.V-01	Brass latch heavy 300 mm	Each	710.00
794	TBSC-P.V-02	Brass latch heavy 350 mm	Each	816.00
795	TBSC-P.V-03	Brass latch heavy 450 mm	Each	1,075.00
796	TBSC-P.V-04	Aluminium Flat Latches: 200 mm long	Each	118.00
797	TBSC-P.V-05	Aluminium Flat Latches: 250 mm long	Each	129.00
798	TBSC-P.V-06	Aluminium Flat Latches: 300 mm long	Each	140.00
799	TBSC-P.V-07	MS-Powder Coated Flat Latches: 250 mm long	Each	65.00
800	TBSC-P.V-08	MS-Powder Coated Flat Latches: 300 mm long	Each	81.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
VI	SUB-SECTION	DOOR CLOSURES		
801	TBSC-P.VI-01	Providing and fixing Cast Iron Body Bottle Type Hydraulic Door Closer (IS: 3564) with double speed adjustment, with necessary accessories and screws etc. complete	Each	1,144.00
802	TBSC-P.VI-02	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-1: for width of doors up to 700 mm)	Each	1,341.00
803	TBSC-P.VI-03	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-2: for width of doors 701 to 850 mm)	Each	1,436.00
804	TBSC-P.VI-04	Providing and fixing Aluminium Extruded Section Body Tubular Type Hydraulic Door Closer (IS: 3564) with double speed adjustment with necessary accessories and screws etc. complete (Type-3: for width of doors 851 to 1000 mm)	Each	1,508.00
VII	SUB-SECTION	FLOOR SPRINGS		
805	TBSC-P.VII-01	Double action Stainless steel cover plate and cast body iron floor spring (IS 6315- Table-1)	Each	2,072.00
806	TBSC-P.VII-02	Double action Brass cover plate and cast brass body floor spring (IS 6315- Table-1)	Each	4,983.00
807	TBSC-P.VII-03	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S./ Brass cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 130 Kgs)	Each	4,237.00
808	TBSC-P.VII-04	Providing and fixing double action brass cast hydraulic floor spring (IS:6315-Table 1) for doors including cost of cutting floors as required, embedding in floors and S.S. cover plates with brass pivot and single piece M.S. Sheet outer box with slide plate etc. complete (door weight capacity up to 80 Kgs)	Each	3,152.00
809	TBSC-P.VII-05	Providing of brass cast body Floor Spring IS: 6315 sleek in size with the S.S. / Brass Cover plates of Length 320 mm x Breadth 130 mm size along with the Top Patch, Bottom Patch, Door Lock and Pivot with Double Cylinder etc. complete for Heavy duty Glass doors.	Each	13,739.00
VIII	SUB-SECTION	MORTICE LOCKS		
810	TBSC-P.VIII-01	Heavy duty mortise lock 6/7 levers (IS:2209) with PC or CP handles complete set	Each	1,015.00
811	TBSC-P.VIII-02	Heavy duty mortise lock 6/7 levers (IS:2209) with brass heavy handles	Each	2,643.00
IX	SUB-SECTION	OTHER ACCESSORIES		
812	TBSC-P.IX-01	Brass Door Stoppers	Each	220.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
813	TBSC-P.IX-02	MS-Powder Coated - Door Stoppers	Each	56.00
814	TBSC-P.IX-03	Heavy duty Aluminium Door stopper	Each	72.00
815	TBSC-P.IX-04	Rubber/ Nylon door stop bushes	1 Each	14.00
816	TBSC-P.IX-05	Supply & fixing Mild Steel Powder coated drapery curtain rods (25.4 mm) 1" x 21 G with PVC rings	1 RM	140.00
817	TBSC-P.IX-06	Supply & fixing design drapery curtain rod bracket - brass/ stainless steel powder coated heavy duty	pair	498.00
818	TBSC-P.IX-07	Nylon rollers for sliding glasses/ aluminium windows	1 Each	19.00
819	TBSC-P.IX-08	MS Z Hold fasts - 300 mm long of 40 x 40 x 5 mm ISA	1 Each	41.00
820	TBSC-P.IX-09	Magnetic Catchers	1 Each	18.00
821	TBSC-P.IX-10	Supplying and fixing Aluminium Curtain Drapery rod of 25 mm dia not less than 1.0 mm thick powder coated with premium finish, including rings, screws etc., complete	1 RM	106.00
822	TBSC-P.IX-11	Supplying and fixing Stainless Steel Curtain Drapery rod of 25 mm dia 1.0 mm thick of 304 Grade steel powder coated with premium finish, including rings, screws etc., complete	1 RM	297.00
823	TBSC-P.IX-12	Supplying and fixing Brass Curtain Drapery rod of 25 mm dia not less than 1.0 mm thick powder coated with premium finish, including rings, screws etc., complete	1 RM	336.00
824	TBSC-P.IX-13	D type on rose Mortise handle SS 304 Grade 19mm dia	1 Set	1,187.00
825	TBSC-P.IX-14	Euro profile Cylinder Key & Knob 60mm SS finish	1 Each	606.00
826	TBSC-P.IX-15	10" on plate mortise handle with mortise lock body and cylinder key and knob 60mm	1 Set	2,412.00
827	TBSC-P.IX-16	8" on plate mortise handle with mortise lock body and cylinder key and knob 60mm	1 Set	2,095.00
828	TBSC-P.IX-17	Digital Lock 101 MGM 4 in 1 Access	1 Set	12,949.00
829	TBSC-P.IX-18	Soft close clip on prime pack master 0,8 crank with 5mm mounting plate	Pair	215.00
830	TBSC-P.IX-19	Door stopper in twin Door Mounted Hanging Type 304 grade	1 Each	367.00
831	TBSC-P.IX-20	Door Buffer	1 Each	36.00
Q	SECTION	CONSTRUCTION CHEMICALS & ADMIXTURES		
		Approved brands, area of application, dosage etc have been appended to this SoR for the guidance for preparation of estimates only. However, Literature for usage/ application of construction/ water proofing materials, epoxies etc, may be obtained from the manufacturers, while in execution.		
I	SUB-SECTION	PLASTICIZERS		
832	TBSC-Q.I-01	Concrete Plasticizers and Water reducing admixture Conforming to IS:9103-1999	1 Ltr	220.00
833	TBSC-Q.I-02	Early High Strength, High water retention, polycarboxylic plasticizers Conforming to IS:9103-1999	1 Kg	155.00
834	TBSC-Q.I-03	High performance super plasticizer and water reducing admixture Conforming to IS: 9103-1999	1 Kg	105.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
835	TBSC-Q.I-04	Super plasticizer for high range water reducing admixture Conforming to IS: 9103-1999	1 Kg	116.00
836	TBSC-Q.I-05	Super plasticizer, high range water reducing and retarding admixture complying with IS: 9103-1999	1 Kg	128.00
837	TBSC-Q.I-06	Plasticizer for accelerator for sprayed concrete Conforming to IS: 9103-1999.	1Kg	95.00
838	TBSC-Q.I-07	High Early Strength Concrete Admixture for Road Repairs	1 Ltr	33.00
II	SUB-SECTION	WATER PROOFING COMPOUNDS		
839	TBSC-Q.II-01	Integral Cement Waterproofing Liquid Conforming to IS: 2645-2003	1 Ltr	230.00
840	TBSC-Q.II-02	High durable cementitious acrylic based waterproofing systems	1 Kg	148.00
841	TBSC-Q.II-03	Acrylic Polymer Elastomeric Cementitious Waterproof Coatings	1 Ltr	381.00
842	TBSC-Q.II-04	Single component, elastomeric waterproof membrane coating	1 Ltr	463.00
843	TBSC-Q.II-05	Quick setting, rapid hardening and water proofing compound Conforming to IS: I.S. 2645-2003	1 Ltr	88.00
844	TBSC-Q.II-06	Highly Flexible Waterproof Acrylic Elastomeric bituminous Blended Coatings	1 Ltr	327.00
845	TBSC-Q.II-07	Two part system of fibre reinforced Acrylic Cementitious Waterproofing coating.	Kg	158.00
846	TBSC-Q.II-08	High strength cellulose fibre reinforced acrylic elastomeric liquid membrane waterproof coating	Ltr	334.00
847	TBSC-Q.II-09	High Strength Acrylic Penetrative U,V. Resistant concrete road top coatings.	Ltr	367.00
848	TBSC-Q.II-10	High performance polyurethane blended with bituminous Membrane coating (Complies with ASTM C - 836)	Ltr	681.00
849	TBSC-Q.II-11	Nano Technology water based transparent silicon water repellent	Ltr	784.00
850	TBSC-Q.II-12	Providing and applying Brush bond (two component acrylic polymer modified elastomeric waterproofing membrane which consists of Brush bond powder and Brush bond liquid acrylic emulsion) for a minimum 2mm thickness coating. (Work shall be executed as per manufacturer's specification and instructions.	Ltr	271.00
III	SUB-SECTION	BONDING AGENTS/ ADHESIVES		
851	TBSC-Q.III-01	Acrylic based Bonding adhesive	1 Ltr	164.00
852	TBSC-Q.III-02	Styrene butadiene rubber based bonding agent	1 Kg	490.00
853	TBSC-Q.III-03	Two Parts system of Epoxy Bonding adhesive Conforming to ASTM-C 881	1 Kg	946.00
854	TBSC-Q.III-04	Liquid Polymer additive for cement & concrete mixes	1 Ltr	261.00
855	TBSC-Q.III-05	Polymer cementitious additive for fixing tiles/ stones etc	1 Kg	238.00
856	TBSC-Q.III-06	Highly multi purpose Roads Grade concrete bonding agent	Ltr	238.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
857	TBSC-Q.III-07	Polymer Modified Adhesive mortar for jointing AAC Blocks/ Other Blocks	1 Kg	17.00
IV	SUB-SECTION	ANTI-CORROSIVE AGENTS		
858	TBSC-Q.IV-01	Acrylic based Anti corrosive coating	1 Ltr	381.00
859	TBSC-Q.IV-02	Rust converter -rust encapsulating coating for steel	1 Ltr	522.00
860	TBSC-Q.IV-03	High range of reinforcement / steel protector against corrosion zinc rich epoxy resin primer	1 Kg	814.00
861	TBSC-Q.IV-04	Anti corrosion CRPPC (Corrosion Resistant) inhibitive admixture	1 Lit	377.00
862	TBSC-Q.IV-05	Anti-carbonation coating for Concrete Structures under aggressive environment/ Flyovers/ Bridges: Providing and application of Highly elastomeric anti carbonation coating with good crack bridging ability, waterproofing properties & UV Resistant. Product should be with standing at minimum 5bar pressure against water penetration as per BSEN:12390(PART 8)-2006, having elongation of >350 %(ASTM D412-16, tensile strength >4 Mpa(ASTM D412-16, Water Vapour Transmission rate(g/m ² /hr) 0.42(ASTM E96-16), Co ₂ Diffusion Co-efficient R:>200m @300 Micron Fft. Thickness: Recommended thickness of 200 Micron Dft in two coats. Coverage: 3.5-5.5 m ² /ltr/coat (2coats recommended)	1 Sqm	962.00
863	TBSC-Q.IV-06	Polyurethane Coatings for Steel structures like Bridges/Walkways etc.,: Providing and application of High Quality lead and chromate free two component (Acrylate-Isocyanate based) Polyurethane coating for Steel structures, machinery & apparatus. This coating is resistant to water, diluted acids and chemicals and having excellent abrasion resistance, weather resistance and impact resistance. Product is sustained with thermal resistance up to 1200°C dry heat. System comprised of High Solid Epoxy Resin primer with Polyurethane top coat as per ISO 12944. Thickness: 40-60 Micron Dft Coverage: 90gms/ Sq.mtr in 1 coat. Two coats recommended.	1 Sqm	1,016.00
V	SUB-SECTION	GROUTS		
864	TBSC-Q.V-01	High Power Polyester Resin Anchor Grout Conforming to ASTM-827	1 Kg	327.00
865	TBSC-Q.V-02	Non-shrink Free flow high strength precision grout Conforming to BS 1881 Part 1161983.	1 Kg	40.00
866	TBSC-Q.V-03	Low viscosity Epoxy resin injection grout	1 Kg	869.00
867	TBSC-Q.V-04	Three component epoxy grout Conforming to IS: ASTM 827 (Three components)	1 Kg	176.00
868	TBSC-Q.V-05	Expansive aqua -reactive water barrier and grouting system.	1 Kg	1,127.00
VI	SUB-SECTION	MISCELLANEOUS CHEMICALS		
869	TBSC-Q.VI-01	Moulds / Shutter releasing oil	1 Ltr	159.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
870	TBSC-Q.VI-02	Non oxidizing, heavy duty metallic Floor Hardeners	1 Kg	43.00
871	TBSC-Q.VI-03	Non-metallic Floor Hardeners	1 Kg	36.00
872	TBSC-Q.VI-04	High Strength, Non shrink Micro Concrete for structural repair product.	1 Kg	42.00
873	TBSC-Q.VI-05	Structural graded polymer modified reinstatement concrete / mortar (Two Part System)	1 Kg	95.00
874	TBSC-Q.VI-06	Three Component high performance elastomeric mortar.	1 Kg	1,031.00
875	TBSC-Q.VI-07	Surface treatment crystalline product.	1 Kg	393.00
876	TBSC-Q.VI-08	Polyurethane Sealant. 600 ml tube	1 No	793.00
877	TBSC-Q.VI-09	Polysulphide Sealant.	1 Kg	490.00
878	TBSC-Q.VI-10	Acrylic Latex caulking compound.	1 Kg	365.00
879	TBSC-Q.VI-11	Fast setting cement based plugging compound	1 Kg	95.00
880	TBSC-Q.VI-12	Highly Flexible High Range Polyurethane surface coatings	1 Ltr	706.00
881	TBSC-Q.VI-13	Coal Tar Epoxy	1 Kg	381.00
882	TBSC-Q.VI-14	Water Based Acrylic Blended High power curing compound	1 Kg	111.00
883	TBSC-Q.VI-15	Bituminous hot sealing compound	1 Kg	132.00
884	TBSC-Q.VI-16	Bitumen solution primer coating.	1 Kg	95.00
885	TBSC-Q.VI-17	Air Entraining Agent Conforming to IS: 9103-99	1 Ltr	132.00
886	TBSC-Q.VI-18	Imidacloprid 30.5% S.C diluted @ 2.1 ml of formulation in one Liter of water for the termite treatment in the buildings during pre and post construction stages as per current BIS standard practices (IS:6313 part II and III)	1 Lit	3,982.00
887	TBSC-Q.VI-19	Multifilament Polypropylene fibers of 6/12/18 mm length for Plastering, Screeds, all Precasting items	1 Kg	315.00
888	TBSC-Q.VI-20	Macro Synthetic fibers of 45mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining	1 Kg	470.00
889	TBSC-Q.VI-21	Steel Fibers of 35 mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining	1 Kg	106.00
890	TBSC-Q.VI-22	High strength, Acrylic blended dry colour mortar /concrete	1 Kg	52.00
891	TBSC-Q.VI-23	Providing post construction anti termite treatment by drilling 1/2 inch dia., holes at the edges of wall floor junction and pouring anti termite chemical (Imidacloprid 30.5 SC, 10.5 ml for 5 Liters of water as per IS 16131.) with a hand operated pressure pump until refusal or to a maximum of one liter per hole. Holes shall be sealed with cement motor after treatment and providing spraying and injecting termiticides for treating and applying to doors, windows, frames, removing, crusting treating in Treatment along outside of foundations (i.e., Soil in contact with external walls around the	1 Sqm	150.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		building and Concrete or Masonry apron around the building), Treatment of soil under floors - Inside Building, Treatment to voids in masonry, Treatment at points of contact of woodwork, Treatment of Wood Work, Treatment of Electrical Fixtures, as directed in IS 6313 Part 3 2013 with preventive chemicals duly taking precautions for health hazards and safety measures for the occupants including all costs, conveyances of all materials and labour charges etc for finished item of work to the satisfaction of the Engineer-in-Charge. The plinth area of the building each floor shall be taken for the purpose of payment.		
VII	SUB-SECTION	REPAIRING & TREATMENT WORKS		
892	TBSC-Q.VII-01	Providing Tar Felting roof repair with approved brand Tar Felt duly applying one coat of appropriate grade of bitumen in hot condition @ 0.2 Kg/1 Sqm of roof area, fixing tar felt (Conforming to IS 1322-1972 specification), applying second coat of appropriate grade of hot bitumen at 1.20 Kg / 1 Sqm of roof area and spreading course aggregate (sand) at 0.063 Cum per 1 Sqm of roof area finished item.	1 Sqm	330.00
893	TBSC-Q.VII-02	Providing waterproofing treatment by supplying and fixing synthetic membrane felt of 1.50 mm thickness, 2.25 Kg per Sq. Mtr. duly applying one coat of Bituminous Emulsion, first coat of bituminous grade 85/25, fix waterproofing membrane, applying second coat of bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and applying one coat of bituminous aluminium paint for heat resistance for finished item.	1 Sqm	463.00
894	TBSC-Q.VII-03	Providing and laying of 3mm thick app modified bitumen membrane treatment to the terrace duly [1]removing of existing tar felt. [2]cleaning of the surface from dirt, dust and other contaminations. [3]application of one coat of Bitumen primer [4]providing and laying of 3mm thick APP Modified Bitumen Membrane with 100 mm overlap fixing with butane torch.	1 Sqm	622.00
895	TBSC-Q.VII-04	Providing specialized high performance acrylic polymer modified elastomeric cementitious waterproof coating to the terrace / walls / internal portion of the bathroom & toilets / internal portion of the water tanks duly cleaning of the surface from dirt, dust and other contaminations, providing and application of Two coats of High performance Acrylic polymer modified	1 Sqm	494.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Elastomeric cementitious waterproof coating (1.8 Sq. Mtr. / Kg /Each Coat)		
896	TBSC-Q.VII-05	Providing specialized high build, elastomeric acrylic bituminous blended coating to the terrace / internal portion of the bathroom / toilets / basements / roofing duly a). Cleaning of the surface. b). Applying primer coat of High Build, Elastomeric Acrylic Bituminous Blended Coating c). Application of Two coats of High Build, Elastomeric Acrylic Bituminous Blended Coating	1 Sqm	457.00
897	TBSC-Q.VII-06	Providing specialized high solid, cold applied, acrylic elastomeric liquid membrane coating treatment to the terrace / roofing with fibre mesh / geo fabric duly a. Cleaning of the surface from dirt, dust and other contaminations. b. Applying one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating c. immediately, Application of one coat of High solid, Cold applied, Acrylic Elastomeric Liquid Membrane coating e. Laying of fibre mesh 40 GSM / Geo fabric 40 GSM on the surface. f. Over the Fibre mesh, Application of two coats of High solid, cold applied, Acrylic Elastomeric Liquid Membrane Coating	1 Sqm	723.00
898	TBSC-Q.VII-07	Providing specialized polysulphide sealant treatment to the expansion joints (Size : 25 mm x 25 mm) duly a]. Chipping and removing of existing covering on expansion joints b]. Cleaning of the surface from dirt, dust and other contaminations c].Application of one coat of - High performance specially designed SBR latex polymer based bonding agent d]. Providing and application of Acrylic Polymer modified reinstatement concrete /mortar to the damaged edges of joint and making the groove. e]. Providing and fixing of masking tape on top of the joint both sides f]. Providing and fixing of Back up support material of PVC Solid Backer rod to leave the depth of 25 mm on the joint g]. Providing and application of one coat of polysulphide primer on inner edges of Joint. h]. Providing and application of Two part Polysulphide sealant to a width of 25 mm and depth of 25 mm with putty knife and neat finish i]. Removing of masking tape and providing and application of two coats of Acrylic elastomeric cementitious coating	1 RM	822.00
899	TBSC-Q.VII-08	Pressure grouting the drilled holes with neat cement slurry or with approved grout admixture using pump - excluding cost of drilling holes after fixing nozzles as technical specification approved by the department	1 Each	410.00
900	TBSC-Q.VII-09	Providing multi-coloured silicon fluorocarbon	1 Sqm	1,753.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		spray coating of thickness 1mm for exterior & interior wall finishes to give Natural Granite appearance comprising of 4 coats including application of primer, waterproof coat, Multi colour texture & finally UV resistant with repellent clear coat of low VOC, non-toxic, Green Building compliant material		
901	TBSC-Q.VII-10	Providing and applying epoxy based anti skid coat over existing RCC/Concrete flooring surfaces of 2mm thickness for wear & tear protection in three part applications containing low solvent-coloured, epoxy resin based coating with thymotropic properties specially formulated for application in Car Parks having Mechanical / Physical Properties such as 1. Abrasion Resistance ~ 0.8mm thickness loss (According to IS 1237 - 1980 and IS 9162 - 1979) 2. Chemical Resistance to many chemicals 3. Thermal Resistance Exposure with Dry heat Permanent +50°C	1 Sqm	829.00
902	TBSC-Q.VII-11	Providing and applying epoxy resin based self levelling Conductive Floor System of 2mm thick Antistatic (ESD) Flooring System comprising of 1 coat of Primer followed by Application of copper tape and 1 layer of SL Conductive Undercoat and 1 layer of SL Conductive Top coat with Compressive strength after 7 days at +30° C: 50 N/mm ² and Flexural strength after 7 days at +30° C: approx. 25N/mm ² and Tensile strength after 7 days at +30° C: 16 N/mm ² with a Surface resistance When measured for surface resistance in accordance with BS 2050: 1978 (A-1984) and DIN EN 1081, the static Conductive topping including under coat shall be less than 25k Ω.	1 Sqm	1,704.00
903	TBSC-Q.VII-12	Providing and applying food grade epoxy based water proof coat over existing RCC/Concrete flooring surfaces in three part applications containing low solvent-coloured, epoxy resin based coating with low VOC properties specially formulated for food grade application for potable water storage tanks in ambient temperatures	1 Kg	343.00
904	TBSC-Q.VII-13	Providing water proof treatment by supplying and fixing of MAT of 2mm thickness, 2.25 kg per sqm, first coat of bituminous emulsion, then one coat of bitumen 85/25 grade, fixing of water proofing membrane, sealing of joints with torch, applying second coat of bitumen 85/25 grade, and applying a coat of bituminous Aluminum paint for heat resistance for finished item of work as directed by the Engineer-in-Charge	1 Sqm	522.00
905	TBSC-Q.VII-14	Providing and applying single component low viscous hydrophobic liquid applied	1 Sqm	1,237.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		polyurethane based waterproofing membrane system applied with desired thickness at 1.5 mm thickness with a coverage of 1.8 kg Per Sq.Mtr in two coats over prepared surface on which grouting is done in the form of pressure grouting to the cold joint by injecting cement slurry mixed with grout admixture @ 250 gms.per bag of cement, in the required consistency through the pre fixed PVC nozzles in the 10mm dia holes and applied with two coats of primer, of technical parameters: Tensile Strength: >5Mpa(ASTM D412) Elongation : ≥ 650 % (ASTM D412) Solid Content:95% Crack Bridging ability : upto 2 mm, UV Resistant including providing and laying M20 grade screed concrete in 1:100 to a minimum thickness of 75 mm mixed -Integral Waterproofing admixture at the dosage of 125 ml/bag of cement and virgin polypropylene fibrillated fiber at 0.9kg/m ³ , over waterproofing layer to a minimum thickness of 75 mm as per site requirement(Civil Contractor Scope) including control joints of 4M X 4M size and filling the panels with polyurethane sealant, finally application of High Thermal Reflectance and Emittance Coating(Cool Roof): Application of a single component, water based, high thermal reflectance & emittance coating with SRI 105(ASTM E 1980-11) Solar Reflectance (ISO 9050/EN410): 0.834, Solar Emittance (EN 673):0.938 coating done over Slope Making cum protection screed at 250gm/sq.mtr		
906	TBSC-Q.VII-15	Providing and Application of Self Levelling High performance Epoxy Floor Topping over VDF Flooring(Industrial Flooring, Food Processing areas, Warehouses) providing and application of Solvent free self levelling epoxy floor Topping with 100% solid content product at 1mm thickness, to meet California Department of Public Health CDPH/EHLB Standard Method Version 1.2 2017 with a compliance certification on: Meets SCAQMD Rule 1113 for VOC content, Contributes toward satisfying credit for low emitting material under LEED 4.1, Low VOCs & Low installation odor with: A. Primer Application, Primer to the concrete substrate:- Application of solvent free epoxy resin based primer 150-200gm/Sq.Mtr, B. Topping:- Finally application of Solvent free Epoxy resin-based Self Leveling floor topping of approved manufacturer at 1mm thickness. Floor Topping to meet: Mixed Density:	1 Sqm	1,340.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Approx. 1.60 gm/cc Shore D hardness : (ASTM D 2240) : 85-90, Pot Life :20-30 Mins at 30°C, Compressive strength(ASTM C579) > 80 N/mm ² , Flexural Strength (ASTM C580) >79 N/mm ² Tensile Strength (ASTM C307) >34 N/mm ² , Bond strength at 7 days (ASTM D7234):Cohesive failure of concrete, Gloss at 60 Deg,1 Day(ASTM D 2457) :85, Skid Resistance on a clean dry surface(ASTM E303) : 50, Abrasion (ASTM D4060) : 32mG loss		
907	TBSC-Q.VII-16	Providing and application of chemical resistant heavy duty Polyurethane flooring at 4mm thickness over VDF Flooring(Industrial Flooring, Food Processing plants, cold storages,Breweries and Beverage Plants). For cold storages thickness need to build up at minimum 8mm-9mm. product to meet: Contributes toward satisfying credit for low emitting material under LEED 4.1:, Meets SCAQMD Rule 1113 for VOC content, Thermal Shock Resistant, Excellent Chemical Resistance, Floor Topping must meet the following technical parameters, Mixed Density: Approx. 2.05 gm/cc Shore D hardness : (ASTM D 2240) : 85-90, Pot Life :15-20 Mins at 23°C Compressive strength(ASTM C579) > 55 N/mm ² , Flexural Strength (ASTM C580) >16 N/mm ² , Tensile Strength (ASTM C307): 6~ 8 N/mm ² , Bond strength at 7 days (ASTM D7234):Cohesive failure of concrete, Gloss at 60 Deg,1 Day(ASTM D 2457) :85, Abrasion (ASTM D4060) : 70mG loss, Modulus of Elasticity ASTM C580: 2.2 x 10 ⁸ PSI, dry Temperature Resistance: -84°C to 93°C, Coefficient of Thermal Expansion ASTM C531: 1.7 x 10 ⁻⁵	1 Sqm	1,804.00
VIII	SUB-SECTION	EXPANSION JOINTS		
908	TBSC-Q.VIII-01	Supply of high performance expansion joint filler board conforming to IS: 1838 - 18 mm THICK	1 Sqm	872.00
909	TBSC-Q.VIII-02	Supply of high performance expansion joint filler board conforming to IS: 1838 - 20 mm THICK	1 Sqm	979.00
910	TBSC-Q.VIII-03	Supply of high performance expansion joint filler board conforming to IS: 1838 - 25 mm THICK	1 Sqm	1,223.00
911	TBSC-Q.VIII-04	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 20 mm THICK	1 Sqm	351.00
912	TBSC-Q.VIII-05	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 25 mm THICK	1 Sqm	438.00
913	TBSC-Q.VIII-06	Supply of expansion joint filler board conforming to IS: 1838 for buildings, columns, beams and slabs 50 mm THICK	1 Sqm	872.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
914	TBSC-Q.VIII-07	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 10 mm OD	1 RM	16.00
915	TBSC-Q.VIII-08	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 12 mm OD	1 RM	18.00
916	TBSC-Q.VIII-09	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 15 mm OD	1 RM	22.00
917	TBSC-Q.VIII-10	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 20 mm OD	1 RM	31.00
918	TBSC-Q.VIII-11	Supply of back up to cold applied gun-grade polysulphide sealant conforming to IS:11433 (Part-1) in construction and longitudinal joint - 25 mm OD	1 RM	39.00
919	TBSC-Q.VIII-12	Chipping and scarifying the existing DPC/ plum concrete surface or impervious surface up to 50 mm thick to expose the virgin surface of the concrete using low/ medium vibratory chipping machine as a part of structural repair/ retrofitting	1 Sqm	26.00
920	TBSC-Q.VIII-13	Providing and filling the chipped and scarified surface with High Strength, Non shrink Free Flow Micro Concrete mixing with water 3.75 to 4 liters per 25 kg bag and 6 to 12 mm aggregate, if necessary as per the directions of the Engineer-in-charge as a part of structural repair/ retrofitting	1 Cum	42,926.00
921	TBSC-Q.VIII-14	Supplying and fixing of weld mesh of size 100 x 100 x 3 mm using "U" nails into the existing prepared surfaces of concrete/ masonry as per the directions of the Engineer-in-charge as a part of structural repair/ retrofitting	1 Sqm	326.00
922	TBSC-Q.VIII-15	Providing guniting to the treated surfaces of concrete/ masonry with 30-35 mm thick premixed polypropylene fibers in two layers with dry-gun concrete as per IS 9012:1978 and the directions of the Engineer-in-Charge as a part of structural repair/ retrofitting	1 Sqm	3,242.00
923	TBSC-Q.VIII-16	Providing shortcreting to the treated surfaces of concrete/ masonry with 25 - 30 mm thick premixed polypropylene fibers in two layers with wet-gun concrete as per IS 9012:1978 and the directions of the Engineer-in-Charge as a part of structural repair/ retrofitting	1 Sqm	3,242.00
924	TBSC-Q.VIII-17	Providing and fixing of horizontal floor to floor expansion joint system for specified gap width of 100/25 metallic system after laying of necessary EPDM membrane over the joint profile related with floor location as per drawings. The joints system will be of	1 RM	3,230.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		extruded aluminium base members, support plates with EPDM top seal etc. as per ASTM B221-02. The system shall be such that it provides floor to floor expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminium base member designed to accommodate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members . Expansion joint shall be tested for their watertight property & the same shall be watertight for a period of five years. (Material shall confirm to ASTM 6063.) Rates shall also be inclusive of material and labour of all exposed aluminium work, all as per manufacturers specifications. Rate should be exclusive of necessary scaffolding work, non shrink grout, RCC cutting, edge preparation, stone fixing in recess part of joint etc complete.		
925	TBSC-Q.VIII-18	Providing and fixing of paintable - expansion joint system for specified gap width of 25mm for all Internal /external - vertical wall to wall /wall to corner /ceiling location as per drawings, applying of PU sealant on both side of the seal into the groves after applying of the masking tape on both side of the joint to ensure straight alignment and squeezing the seal into the joint with uniform hand pressure and sealing the same . remove the residue form the top and masking tape from the side to ensure watertight joint complete in all respects. Internal wall 25mm expansion gap	1 RM	2,105.00
926	TBSC-Q.VIII-19	Providing and fixing of paintable - expansion joint system for specified gap width of 25mm for all Internal /external - vertical wall to wall /wall to corner /ceiling location as per drawings, applying of PU sealant on both side of the seal into the groves after applying of the masking tape on both side of the joint to ensure straight alignment and squeezing the seal into the joint with uniform hand pressure and sealing the same . remove the residue form the top and masking tape from the side to ensure watertight joint complete in all respects. External Wall 25mm expansion gap	1 RM	3,384.00
927	TBSC-Q.VIII-20	Providing and Fixing of Aluminium Mechanical expanion joint covers over 50mm wide	1 RM	5,411.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		expansion joint on the floor, made of Anodized Aluminium alloy (6063 T5/T6) consisting of support slides and rubber gasket (made of elastomeric seal) fixed with 8x80mm sleeve anchors at every 0.508mm interval. Including providing a layer of EDPM Barrier (between the exposed expansion joint and profile) with epoxy based adhesive on both the sides of expansion joint. Including cost and conveyance of all materials to site, all incidental, buffing & cleaning of surfaces, operational, labour charges, etc., complete for finished item of work as per approved drawing. (Floor to Floor expansion joint)		
928	TBSC-Q.VIII-21	Providing and Fixing of plain or L or V type Aluminium Mechanical expansion joint covers over 50mm gap Wall to Wall or Column to Wall, made of continuous Extruded (118mm width) Powder coated Aluminium alloy (6063 T5/T6) consisting of snap on wall system with 50% movement with 6x40mm sleeve anchors at every 0.508mm interval. Including cost and conveyance of all materials to site, all incidental, buffing & cleaning of surfaces, operational, labour charges, overheads & contractors profit etc., complete for finished item of work as per approved drawing. (Floor to Floor expansion joint)	1 RM	6,313.00
929	TBSC-Q.VIII-22	Providing and Fixing of plain or L or V expansion joint covers over 75mm gap Wall to Wall or Column to Wall, made of continuous Extruded (118mm width) Powder coated Aluminium alloy (6063 T5/T6) consisting of snap on wall system with 50% movement with 6x40mm sleeve anchors at every 0.508mm interval. Including cost and conveyance of all materials to site, all incidental, buffing & cleaning of surfaces, operational, labour charges, etc., complete for finished item of work as per approved drawing. (Floor to Floor expansion joint)	1 RM	7,457.00
R	SECTION	MISCELLANEOUS ITEMS		
I	SUB-SECTION			
930	TBSC-R.I-01	Supply of White Cement conforming to IS:8042-1989	1 Kg	38.00
931	TBSC-R.I-02	Supply of well burnt cinder aggregates as per IS: 2686-1977	1 Cum	966.00
932	TBSC-R.I-03	Supply of Aluminium annealed and anodized sections for Doors, partitions, windows, Ventilators (including anodization cost) conforming to IS: 11857 - 1986/ Aluminium plates, sheets and sections for formwork and other industrial uses purposes	1 Kg	356.00
933	TBSC-R.I-04	Providing Powder coating as per IS:13871-1993 or colour anodization as per IS:7088-	1 Kg	39.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		1973 - on any aluminium or mild steel section		
934	TBSC-R.I-05	Providing hot dip galvanizing to any steel section as per IS:2629-1985	1 Kg	23.00
935	TBSC-R.I-06	Supply of Clear Silicone Sealant (Glass Glue Sealant) of Gun Applicator grade	1 Kg	254.00
936	TBSC-R.I-07	Supply of Sun Control film to the glazed windows partition including labour charges.	1 Sqm	359.00
937	TBSC-R.I-08	Supply of Aluminium Venetian Blinds horizontal 25.4 mm wide with all accessories.	1 Sqm	922.00
938	TBSC-R.I-09	Supply of Aluminium Venetian Blinds horizontal 20.0 mm wide with all accessories.	1 Sqm	879.00
939	TBSC-R.I-10	Supply of Venetian blinds Vertical blinds 100 mm wide with all accessories.	1 Sqm	1,469.00
940	TBSC-R.I-11	Supply of Rubber Beading for glass fixing	1 RM	7.00
941	TBSC-R.I-12	Supply of Soft Brush for painting, varnishing etc	Each	162.00
942	TBSC-R.I-13	Supply of Wire Brush for scraping	Each	40.00
943	TBSC-R.I-14	Providing and fixing PVC door cladding to the flush doors shutters, for the new doors it shall be pasted with synthetic glue or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 1 mm thick	1 Sqm	430.00
944	TBSC-R.I-15	Providing and fixing PVC door cladding to the flush doors shutters, for the new doors it shall be pasted with Synthetic glue SSR 998 or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 1.5 mm thick	1 Sqm	490.00
945	TBSC-R.I-16	Providing and fixing PVC door cladding to the flush doors shutters, for the new doors it shall be pasted with Synthetic glue SSR 998 or nailed to the old doors. complete as per direction of Engineer-in-charge, manufacturers specification and drawing - 2.0 mm thick	1 Sqm	554.00
946	TBSC-R.I-17	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, ACP Cladding - 3 mm thick	1 Sqm	2,895.00
947	TBSC-R.I-18	Supplying and fixing aluminium composite cladding with skin material 0.25 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed	1 Sqm	3,157.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, ACP Cladding - 4 mm thick		
948	TBSC-R.I-19	Supplying and fixing aluminium composite cladding with skin material 0.5 mm thick aluminium sheet cover material natural polyethylene aluminium cladding panel fixed with extruded aluminium basis frame (50x25x1.5mm) angle cleats, weather sealants, rivets, GI brackets all as approved, using suitable bolts on structural steel work including necessary accessories complete in all respects including all labour charges etc., complete for finished item of work but excluding cost of structural steel fabrication, scaffolding charges, if any, ACP Cladding - 4 mm thick	1 Sqm	3,539.00
949	TBSC-R.I-20	S&F of pre-cast RCC Grills of any design of 25 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	420.00
950	TBSC-R.I-21	S&F of pre-cast RCC Grills of any design of 40 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	584.00
951	TBSC-R.I-22	S&F of pre-cast RCC Grills of any design of 50 mm thick manufactured with M-30 grade of concrete using vibro-compaction process using joint less FRP moulds to achieve shuttering finish and adequately reinforced for long use and to prevent damage during handling, transportation & erection etc.,	1 Sqm	686.00
952	TBSC-R.I-23	Supply of Aluminium sheet 24 Gauge	1 Sqm	333.00
953	TBSC-R.I-24	Supply of 7.5mm thick Aluminium Grill (as approved by the department) 3.58 Kg/1 Sqm	1 Sqm	1,224.00
		Design, fabrication & supply of light weight pre engineered buildings for a maximum span of 9 meters with 50 x 50 x 2.8 mm M.S hollow square tubes for columns, trusses & purlins walls with sandwich panels made up of 2 Nos 10mm thick cement bonded particle/ fibre boards with 25mm thick 12 kg/cum density expanded polystyrene in between encased in		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		1.25 mm thick 24x7x26 mm 'W' tracks in bottom & top and 'H' section for sides with doors, windows & ventilators, roofing with 26 gauge pre painted profiled sheets fixed with self tapping/ drilling screws, painting with enamel paint for steel items, OBD for interiors and ace for exteriors & providing base plates, templates & anchor bolts along with civil foundation designs & drawings for the finished item of work		
954	TBSC-R.I-25	Steel Structure: - Structure is made up of 50x50x2.8 m/33x66x2.8mm thick hollow M.S. sections for -Columns and purlins	1 RM	474.00
955	TBSC-R.I-26	Steel Structure: - Structure is made up of 50x50x2.8 m/33x66x2.8mm thick hollow M.S. sections for Trusses	1 RM	2,375.00
956	TBSC-R.I-27	10 mm thick 200 X 200 mm M.S Plates for base plates, 250mm long 12mm anchor bolts with plate washer and nuts complete with one coat of Asian or equivalent red oxide paint	Each	803.00
957	TBSC-R.I-28	Sandwich panels: Sandwich panels of 50 mm thick with 25 mm Thermocol of 12 kg / cum, fixed in between 2 Nos 10 mm cement bonded wood particle / fibre boards properly fixed together with 30 mmx30mmx30mm wood pieces along width & length wherever necessary	1 Sqm	1,709.00
958	TBSC-R.I-29	U' Tracks & 'H' Section:- Bottom & Top 'U' Tracks are made of 1.25 mm thick 120 GSM G.I. Sheet of size 24x51x26 mm size.	1 RM	187.00
959	TBSC-R.I-30	G I 'H' Section is made up of forming width of 275 mm single sheet roll formed in the shape of "H" section without any welding joint. 40mm width for flanges and 51 mm for web to hold 50 mm Sandwich panel	1RM	306.00
960	TBSC-R.I-31	Sandwich Panel joinery is made up of couplers or equivalent made from 0.6 mm G.I. roll formed section to hold 2 Nos of 10 mm board on both sides with 25 mm Thermocol in between.	1 RM	362.00
961	TBSC-R.I-32	150 mm X 150 mm X 2.0 mm size M. S. Corner Cover Plate	1 RM	434.00
962	TBSC-R.I-33	Window:- windows are made up of 51 x51 mm step 'U' section made from 1.25 thick MS Cold rolled Steel Sheet and Windows Shutters & Grill are made of 48x25mm mm size pre painted section with 4 mm glass complete with necessary hardware. Grills are made from 8 mm square rod at 100 mm spacing.	1 Sqm	4,973.00
963	TBSC-R.I-34	Door Frames :-51 X 51 Stepped 'U' section made from 1.25 mm thick C.R. section with a 32 mm rebate for 30 mm flush door and Door Shutters with 30 mm thick block board / flush doors with boiling water proof plywood complete with necessary Hard ware.	1 Sqm	4,759.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
964	TBSC-R.I-35	Ventilators:- Ventilators are made of 51x51 mm step 'U' section made From 1.25 mm thick C.R. sheet with fixed louvers and glass.	1 Sqm	5,325.00
965	TBSC-R.I-36	Painting:-1) Steel structure is to be painted with 2 coats of Grade I enamel paint.	1 Sqm	137.00
966	TBSC-R.I-37	2) Exterior walls are painted with one coast of primer and 2 coats of exterior emulsion paint .	1 Sqm	123.00
967	TBSC-R.I-38	3) Interiors are painted with 1+2 coat of O.B.D.	1 Sqm	108.00
968	TBSC-R.I-39	Toilets: - Toilets are provided as per plan with a provision for fixing the wash basin, W.C. etc only is made with M.S. steel section secured to the walls with toilet bracket provision excluding cost of WC/ Wash basin etc	Each	1,139.00
969	TBSC-R.I-40	Sun shades: - Sun shades will be provided wherever necessary with 300 mm more than the width of window. 25x25 mm angle frame to cover 450 mm in the front and the sides. 10mm cement bonded particle board will be fixed on the frame work and sealed with green paste or equivalent.	Each	3,836.00
970	TBSC-R.I-41	Roofing: - Roofing will be provided with 0.5mm thick galvanized / pre painted G.I. profiled sheets fixed to the purlins with 14 size self drilling screws with neoprene washer. Side laps are stitched with self tapping / drilling screws. End laps are to be sealed with 25x3 mm Butyl tape. The sheets are provided with anti capillary grove.	1 Sqm	868.00
971	TBSC-R.I-42	Preparing gabions with jungle wood	Each	7.00
972	TBSC-R.I-43	Planting plants	Each	7.00
973	TBSC-R.I-44	Pruning plants	Each	7.00
974	TBSC-R.I-45	Maintaining avenues including fencing, weeding, mulching, watering etc per plant.	Each	11.00
975	TBSC-R.I-46	Maintaining avenues including fencing, weeding, mulching, watering etc per plant When scattered in hot weather with extra conveyance from March to June	Each	12.00
976	TBSC-R.I-47	Hoisting or lowering of slab	1 cum	133.00
977	TBSC-R.I-48	Drilling holes in hard rock surfaces up to 18mm Diameter	1 RM	414.00
978	TBSC-R.I-49	Drilling holes in hard rock above 18mm Diameter	1 RM	575.00
979	TBSC-R.I-50	Making holes up to 18mm Diameter in RCC/ any stones up to 50 mm thick	1 Each	69.00
980	TBSC-R.I-51	Making holes above 18mm Diameter in RCC/ any stones above 50 mm thick	1 Each	96.00
981	TBSC-R.I-52	Supplying EPDM Gasket for windows panes to the PPS shutter	1 RM	39.00
982	TBSC-R.I-53	Supplying SS 304 Grade Heavy Duty Pivot Hinges for windows	1 Each	95.00
983	TBSC-R.I-54	Making holes in Brick Masonry up to 12 mm dia up to 100 mm thick	1 Each	22.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
984	TBSC-R.I-55	Making holes in Brick Masonry up to 12 mm dia up to 150 mm thick	1 Each	27.00
985	TBSC-R.I-56	Designing, supplying and fixing/ erecting Cable and/or frame supported tensioned membrane-covered fabric structure; incorporating a fabric with low elongation characteristics under tension and capable of an anticlastic configuration, the Tensile Membrane structure using PET yarns covered with a thicker PVC-coating/ PVDF coating of 900 GSM on both sides to protect the fabric with properties of Anti-Wicking, Maximum Tensile Strength 5000/4300 N/cm ² , Tear Resistance 600/500 N, Adhesion 140 N/cm ² , cold and heat resistance in range - 50 to 70 degrees centigrade, light fastness ≥ 7 , light transmission 6.46%, radiation transmission 7.79% complete for finished item of work including cables and fittings, Perimeter, catenary, and sectionalized aluminum clamping system, Structural steel, including masts, trusses, struts, and beams as indicated on the drawings, Fasteners and gaskets etc with a warranty of 20 years	1 Sqm	3,183.00
986	TBSC-R.I-57	Providing and fixing truly levelled and aligned structure made of MS angle of 35x35x3mm thick with 150/225mm x 1830mm x 12mm non asbestos fibre cement eaves board pre painted and designed Density >1225 Kg/m ³ Modulus of Rupture 15.85 MPA, Thermal conductivity 0.0862 W/mk confirming to IS 14862 and Type B category III of ISO 8336, reaction to fire A2-s1d0 tested as per EN 13801 Part 1 and BS 476 Part 4,5,6,7 with the help of full thread flat head steel or copper screws. The MS angle should be fixed on to the soffit with 6mm dia anchor fastener on 620mm cc. Finally the board should be painted with exterior paint. The gaps between the boards should be filled with paintable sealant. All complete as per the drawing and directions of Engineer-in-Charge	1 RM	1,029.00
987	TBSC-R.I-58	Providing and fixing 50mm thick Non asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc and 4mm thick High pressure steam cured non asbestos fibre cement standard board Density>1200kg/m ³ confirming to IS 14862 and Type B category III of ISO 8336 E tested as per AS 1530 part 3 and BS 476 Part 4,5,6,7 on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel should be equivalent to ISO 354-	1 Sqm	222.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		1985, ASTM 423-90 and BS 476 Part 22 1987, IS 8225-1987 modules are erected/installed using galvanized iron steel tracks of 1mm thick and of size 15x51x25mm as bottom track, 25x51x25mm as top track for fixing to the floor and top of the wall respectively including all necessary materials required for erecting and fixing all panel complete as per direction of Engineer-in-Charge		
988	TBSC-R.I-59	Providing and fixing 75mm thick Non asbestos fibre reinforced aerated cement sandwich modules made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc and 4mm thick High pressure steam cured non asbestos fibre cement standard board Density>1200kg/m3 confirming to IS 14862 and Type B category III of ISO 8336 E tested as per AS 1530 part 3 and BS 476 Part 4,5,6,7 on either side of the core having a tongue and groove on longitudinal side of the modules. These solid wall panel should be equivalent to ISO 354-1985, ASTM 423-90 and BS 476 Part 22 1987, IS 8225-1987 modules are erected/installed using galvanized iron steel tracks of 1mm thick and of size 15x77x25mm as bottom track, 25x77x25mm as top track for fixing to the floor and top of the wall respectively including all necessary materials required for erecting and fixing all panel complete as per direction of Engineer-in-Charge	1 Sqm	278.00
989	TBSC-R.I-60	Roofing with Durasteel Roofs as per ER-32-251 Galvalume AZ150/PPGI of thickness 0.50mm thick with a tensile strength of 225 Mpa	1 Sqm	552.00
990	TBSC-R.I-61	Roofing with 6mm Non asbestos cement roofing sheets in natural stone grey confirming to BIS 14871: 2000 in standard width of 1097mm and length of 1m	1 Sqm	425.00
991	TBSC-R.I-62	Supply and Fixing of 84MM Thick Hollow Glass blocks , as directed by the Engineer- in-charge including cost of overheads & contractors profit etc., complete for finished item of work.	1 Sqm	14,215.00
992	TBSC-R.I-63	Supplying and laying Solid Wood Flooring of thickness 18 mm cut down to desired size using natural 100% wood board drawn and sawn from one piece of solid wood Oak, American Walnut, Burma Teak, Cumaru, Jatoba etc., including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	4,406.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
993	TBSC-R.I-64	Supplying and laying Engineered Wooden Flooring of thickness 14 mm and varying width (53 to 207 mm) reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using good quality Engineered Wood comprising of top layer of 3-4 mm thick specie wood drawn and sawn from one piece of solid wood Oak, American Walnut, Burma Teak, Cumaru, Jatoba etc., and bottom layer of 12-15 mm is wooden, spruce or pine or plywood Tongue and Groove 4 Sides machined to a hundredth of a millimeter, with beveled tongue in a tongue & groove section for easy jointing including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	3,916.00
994	TBSC-R.I-65	Supplying and laying Laminate Wooden Flooring of thickness 8 mm and 53 to 92 mm wide reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using good quality multi-layer synthetic flooring product, fused together with a lamination process the core layer with high-density fiberboard (HDF) including preparing the surface with 5 - 7 mm thick POP treatment, supplying 3 mm thick foam sheet and HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting to receive the wooden flooring	1 Sqm	981.00
995	TBSC-R.I-66	Supplying and Installation of Sports Flooring system of overall 80 mm thick (a+b+c) of which the top layer is of thickness (a) 22 mm and 53 to 92 mm wide reapers of varying length in tongue and groove shape, the edges of the boards with finger lock groove and the bottom side with air pass groove using natural 100% hardwood board drawn and sawn from one piece of solid wood Maple, Teak wood, Oak, etc., the under frame-made of pine wood runners of (b) 38 mm x 70 mm, treated with anti-termite solution and fixed on the bottom side with (c) 20 mm thick EPDM air cushioned pads, stapled through the two wings at 350 mm x 350 mm c/c, including laying HDPE Plain Black Polythene Sheet, Tarpaulin Grade: GSM 150, Thickness: 100 Microns Sheeting on existing IPS / RCC subfloor treated with a vapor barrier to be placed on the leveled IPS / RCC	1 Sqm	7,343.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		sub floor before laying the under frame, the runners having air cushion pads to be placed on the vapor barrier in perfect level at 350mm in 1 direction, the surface board to be screwed to the runner through the tongue only and will lock the screwed tongue by the groove of adjoining board, ends of the boards to be locked by inserting the wooden fingers through the edge grooves and fixed with suitable adhesive, an expansion of 12 to 15 mm to be left open between the wooden flooring and the surrounding tiled area / walls, duly finishing with machine sanded in uniform level and finishing with P.U. POLISHING water based polyurethane lacquer, etc, including game line marking to be carried out in required colors before applying the finishing coat, complete for finished item		
996	TBSC-R.I-67	Unlined Flax Canvas Hose pipe 3" size for fire fighting as per IS 4927 : 1992	1 Rm	63.00
997	TBSC-R.I-68	Round cover blocks of M60 grade with cover size of 25 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	6.00
998	TBSC-R.I-69	Round cover blocks of M60 grade with cover size of 40 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	9.00
999	TBSC-R.I-70	Round cover blocks of M60 grade with cover size of 50 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	10.00
1000	TBSC-R.I-71	Slab cover blocks of M60 grade with cover size of 20 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	5.00
1001	TBSC-R.I-72	Trapezoidal cover blocks of M60 grade with cover size of 75 mm confirming to IS Code 456:200 section 26.4. 1 .	Each	9.00
1002	TBSC-R.I-73	Multiple cover blocks of M60 grade with cover size of -20*25*40*50mm and confirming to IS Code 456:200 section 26.4. 1 .	Each	6.00
1003	TBSC-R.I-74	Multiple cover blocks with holes of M60 grade with cover size of 20*25*40*50mm confirming to IS Code 456:200 section 26.4. 1 .	Each	6.00
1004	TBSC-R.I-75	Multiple cover blocks of M60 grade with cover size of 30mm*35mm confirming to IS Code 456:200 section 26.4. 1 .	Each	6.00
1005	TBSC-R.I-76	Supply of Aluminium heat treated sections for windows, structural glazing and other sections of 6063 grade and tempered grade of T6 and above for high strength applications	1 Kg	408.00
1006	TBSC-R.I-77	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 25mm with density - 10500, Tuft GSM 750, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including	1 sqm	1,175.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		transportation, installation, finishing and handover documentation etc comple for finished item of work.		
1007	TBSC-R.I-78	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 35mm with density - 10500, Tuft GSM 800, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc comple for finished item of work.	1 sqm	1,491.00
1008	TBSC-R.I-79	Supply & Laying of Artificial Green Grass made of Polyamide & Polypropylene yarn for real time appurtenance, the thickness of the grass in pile height of 45mm with density - 10500, Tuft GSM 1030,, Tuft withdrawal force -17.4 lbs, with a warranty of 4yrs, including transportation, installation, finishing and handover documentation etc comple for finished item of work.	1 sqm	1,811.00
1009	TBSC-R.I-80	Providing and Fixing of Stone polymer composite tile of thickness of 4 mm Click-N-Lock tiles with wear layer is of 0.3mm, and has an IXPE Cushion backing of 1 mm, 100% Water & Termite proof, Scratch / Fire / UV resistant, a Recyclable Green product having WEL- LOCK click system with suitable skirting, classification of abrasion resistance (Rubbing action of two abrading wheels of S-42 Type, load Applied 500 grams, No. of Cycles 4,200), Resistance to impact(ASTM F1265), scratch resistance (Micro Scratch EN 16094 : 2012), resistance to Chemical of resilient flooring (ASTM F925-13), with a warranty of 5 years, for Indoor application only, low & semi traffic areas, comple for finished item of work.	1 sqm	2,078.00
1010	TBSC-R.I-81	Providing and Fixing of Stone polymer composite tile of thickness of 5 mm Click-N-Lock tiles with wear layer is of 0.5mm, and has an IXPE Cushion backing of 1 mm, 100% Water & Termite proof, Scratch / Fire / UV resistant, a Recyclable Green product having WEL- LOCK click system with suitable skirting, classification of abrasion resistance (Rubbing action of two abrading wheels of S-42 Type, load Applied 500 grams, No. of Cycles 4,200), Resistance to impact(ASTM F1265), scratch resistance (Micro Scratch EN 16094 : 2012), resistance to Chemical of resilient flooring (ASTM F925-13), with a warranty of 5 years, for Indoor application only, low & semi traffic areas, comple for finished item of work.	1 sqm	2,480.00
1011	TBSC-R.I-82	Supply and installation of polymer concrete	1 RM	9,018.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		drain channel (ACO or Equivalent) of dimensions L1000 W(118/98) H97 made of polymer concrete single slot grating and access units in SS; 100mm slot, 25mm height, A15 Load class, including cap, inspection boxes required as per drawings approved by the Architect, including the cost of PCC or Cement Mortar bed upto 50mm, surface preparation, channel to channel jointing with polyurethane sealant with masking tape, lift charge, conveyance and all incidentals as per the instructions of Engineer-in-charge.		
1012	TBSC-R.I-83	Supplying, Fitting and Placing GFRP (Glass Fibre Reinforced Polymer) bars conforming to IRC 137:2022 for structures such as Crash Barriers, Concrete Drains, Concrete pavements, Approach slabs as per drawing and technical specification (Only GFRP Bars manufactured using Vinyl Ester Resin systems and Glass fibers classified as E-CR or R that meet the requirements of ASTM D578 shall be used)	1 KG	185.00
1013	TBSC-R.I-84	Supply of 3000mm x 1000mm and 1800mm x 600mm, 6mm thick panels with Glass Fiber mesh Décor: Any decor Panel Size 3000 x 1000 mm. Primary Structure & Secondary structure which include L Profile, T profiles, male & female clips dead load, wind load brackets, L Brackets, Aluminum box sections, stiffeners, self tapping screws, double sided tape, structural sealant and anchor fasteners as approved Note: The alloy used for all aluminum sub structure components is T6063, males & female clips are anodized.	1 Sqm	8,920.00
1014	TBSC-R.I-85	Supply of 3000mm x 1000mm and 1800mm x 600mm, 6mm thick panels with Glass Fiber mesh Décor: Any decor Panel Size 1800 x 600 mm. Primary Structure & Secondary structure which include L Profile, T profiles, male & female clips dead load, wind load brackets, L Brackets, Aluminum box sections, stiffeners, self tapping screws, double sided tape, structural sealant and anchor fasteners as approved Note: The alloy used for all aluminum sub structure components is T6063, males & female clips are anodized.	1 Sqm	7,026.00
1015		WALL GUARD AND HAND RAIL ITEMS		
1016	TBSC-R.I-86	Providing and fixing 1000 series Handrail having rigid vinyl snap-on cover(lead free) of 080" (2mm) thick, Surface shall have a pebblette texture for scratch and stain resistant rigid vinyl cover mounted on a sturdy continuous aluminium retainer of .080" (2mm) thickness that shall be fabricated	RMT	₹ 1,903.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		from 6063-T5 aluminium with a mill finish. 4-5/16" (110mm) height x 1-5/8" (41mm) gripping diameter, extends 3-1/8" (79mm) from wall which has a oval gripping surface. The system shall resist an Impact Strength of 30.2 ft-lbs/inch of thickness as tested in accordance with the procedures specified in ASTM D-256-90b, Impact Resistance of Plastics. The rigid vinyl shall not support fungal or bacterial growth in accordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It includes Molded end returns with black reveal strip and mounting brackets. .		
1017	TBSC-R.I-87	Providing and fixing 800 series Handrail having rigid vinyl snap-on cover(lead free) of .080" (2mm) thick, Surface shall have a pebblette texture for scratch and stain resistant rigid vinyl cover mounted on a sturdy continuous aluminium retainer of .080" (2mm) thickness that shall be fabricated from 6063-T5 aluminium with a mill finish. 5-1/2" (140mm) height x 1-1/2" (38mm) gripping diameter, extends 3" (76mm) from the wall. The system shall resist an impact of 45.5 ft-lbs/inch while producing no visual blemishes upon the vinyl cover surface and no deformations in the aluminum retainers, as tested in accordance with applicable provisions of ASTM F 476-84, paragraph 18, Impact Test. The rigid vinyl shall not support fungal or bacterial growth in accordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It includes Molded end returns with black reveals and mounting brackets.	RMT	₹ 1,878.00
1018	TBSC-R.I-88	Providing and fixing - 3110 series Handrail with integrated vinyl wall guard. Vinyl: Snap-on covers of .080" (2mm) thickness shall be extruded from chemical and stain resistant unplasticized polyvinyl chloride (uPVC) with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch and stain resistant rigid vinyl cover mounted on a sturdy continuous aluminium retainer of .080" (2mm) thickness that shall be fabricated from 6063-T5 aluminium with a mill finish. 6-1/8" (155mm) height x 1-1/2" (38mm) full round gripping diameter, system extends 3-1/8" (79mm) from the wall. Integrated vinyl cover, 4" (101mm) high. Inner snap-on vinyl impact black bumper of .070" (1.8mm)	RMT	₹ 3,250.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		thickness and 2-1/4" (57mm) high shall be extruded from chemical and stain resistant unplasticized polyvinyl chloride (uPVC). The system shall resist an impact of 45.5 ft-lbs/inch while producing no visual blemishes upon the vinyl cover surface and no deformations in the aluminum retainers, as tested in accordance with applicable provisions of ASTM F 476-84, paragraph 18, Impact Test. The rigid vinyl shall not support fungal or bacterial growth in accordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It includes Molded end returns with black reveal strip and mounting brackets.		
1019	TBSC-R.I-89	Providing and fixing handrail of 940 series smooth Handrail having Vinyl: Snap-on covers of .080" (2mm) thickness shall be extruded from chemical and stain resistant unplasticized polyvinyl chloride (uPVC) with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth) and Continuous aluminum retainer of 2mm (.080") thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 40mm (1.57") gripping diameter, extends 90mm (3.54") from wall. The system shall resist an Impact Strength of 30.2 ft-lbs/inch of thickness as tested in accordance with the procedures specified in ASTM D-256-90b, Impact Resistance of Plastics. The rigid vinyl shall not support fungal or bacterial growth in accordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It includes Cast Aluminum Mounting Bracket with anodized finish and molded end returns with black reveal strip.	RMT	₹ 2,495.00
1020	TBSC-R.I-90	Providing and fixing 160 series high impact surface mount Corner Guard having Vinyl: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant. Continuous aluminum retainer of .070" (1.8mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 2" (51mm) x 2" (51mm), 90 degree. The rigid vinyl profile shall resist an impact of 30.2 ft-lbs/inch as per ASTM D-256-90b and shall not support fungal or bacterial growth	RMT	₹ 757.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		inaccordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It includes Top caps and bottom caps which shall be made of injection molded thermoplastics.		
1021	TBSC-R.I-91	Providing and fixing 150 series high impact surface mount Corner Guard having Vinyl: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant. Continuous aluminum retainer of .070" (1.8mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 3" (76mm) x 3" (76mm), 90 degree. The rigid vinyl profile shall resist an impact of 30.2 ft-lbs/inch as per ASTM D-256-90b and shall not support fungal or bacterial growth inaccordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It includes Top caps and bottom caps which shall be made of injection molded thermoplastics.	RMT	₹ 966.00
1022	TBSC-R.I-92	Providing and fixing of 3412N series No Tape corner guards having Vinyl: Corner guard of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant. Dimensions to be of 3/4" (19mm) x 3/4" (19mm) 90 degree. The rigid vinyl profile shall not support fungal or bacterial growth inaccordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance.	RMT	₹ 384.00
1023	TBSC-R.I-93	Providing and fixing of 11212N series No Tape corner guards having Vinyl: Corner guard of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant. Dimensions to be of 1 1/2" (38mm) x 1 1/2" (38mm) 90 degree. The rigid vinyl profile shall not support fungal or bacterial growth inaccordance with ASTM G-21 and G-22. The system shall also conform	RMT	₹ 294.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		to class A fire rating and ASTM D-543 for chemical and stain resistance.		
1024	TBSC-R.I-94	Providing and fixing 1400 series superior impact resistance Wall Guard having Vinyl: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant. , and Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 4" (102mm) height x 1" (25mm) depth. Inner snap-on vinyl impact black bumper of .080" (2mm) thickness x 1.870" (48mm) width x 18mm height which shall be extruded from chemical and stain resistant unplasticized polyvinyl] chloride (uPVC). The system shall resist an impact of 45.5 ft-lbs/inch while producing no visual blemishes upon the vinyl cover surface and no deformations in the aluminum retainers, as tested in accordance with applicable provisions of ASTM F 476-84, paragraph 18, Impact Test and shall not support fungal or bacterial growth inaccordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It shall include injection molded End Caps with black reveal strip.	RMT	₹ 1,098.00
1025	TBSC-R.I-95	Providing and fixing of 1600 series superior impact resistance Wall Guard having Vinyl: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant and Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 6" (152mm) height x 1" (25mm) depth. Inner snap-on vinyl impact black bumper of .080" (2mm) thickness x 3.930" (100mm) width x 21mm height which shall be extruded from chemical and stain resistant unplasticized polyvinyl] chloride (uPVC). The system shall resist an impact of 45.5 ft-lbs/inch while producing no visual blemishes upon the vinyl cover surface and no deformations in the aluminum retainers, as tested in accordance with applicable provisions of ASTM F 476-84,	RMT	₹ 1,582.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		paragraph 18, Impact Test and shall not support fungal or bacterial growth inaccordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It shall include injection molded End Caps with black reveal strip.		
1026	TBSC-R.I-96	Providing and fixing of 1500 series superior impact resistance Wall Guard having Vinyl: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant and Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 5" (127mm) height x 1" (25mm) depth. Inner snap-on vinyl impact black bumper of .080" (2mm) thickness x 1.870" (48mm) width x 18mm height which shall be extruded from chemical and stain resistant unplasticized polyvinyl] chloride (uPVC). The system shall resist an impact of 45.5 ft-lbs/inch while producing no visual blemishes upon the vinyl cover surface and no deformations in the aluminum retainers, as tested in accordance with applicable provisions of ASTM F 476-84, paragraph 18, Impact Test and shall not support fungal or bacterial growth inaccordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It shall include injection molded End Caps with black reveal strip.	RMT	₹ 1,427.00
1027	TBSC-R.I-97	Providing and fixing of 700 series superior impact resistance Wall Guard having Vinyl: Snap on cover of .080" (2mm) thickness shall be extruded from chemical and stain resistant polyvinyl chloride with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Surface shall have a pebblette texture for scratch resistant and Continuous aluminum retainer of .080" (2mm) thickness shall be fabricated from 6063-T5 aluminum, with a mill finish. Dimensions to be of 7 3/4" (197mm) height x 1" (25mm) . Inner snap-on vinyl impact black bumper of .080" (2mm) thickness x 3.930" (100mm) width x 21mm height which shall be extruded from chemical and stain resistant unplasticized polyvinyl] chloride (uPVC). The system shall resist an impact of 45.5 ft-lbs/inch while producing no	RMT	₹ 1,790.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		visual blemishes upon the vinyl cover surface and no deformations in the aluminum retainers, as tested in accordance with applicable provisions of ASTM F 476-84, paragraph 18, Impact Test and shall not support fungal or bacterial growth in accordance with ASTM G-21 and G-22. The system shall also conform to class A fire rating and ASTM D-543 for chemical and stain resistance. It shall include injection molded End Caps with black reveal strip.		
1028	TBSC-R.I-98	Providing & fixing INPRO make - 405V series IPC® Rigid PVC Sheet shall be manufactured from chemical and stain resistant unplasticized polyvinyl chloride (uPVC) with the addition of impact modifiers. No plasticizers shall be added (plasticizers may aid in bacterial growth). Dimensions to be 4' x 8' (1.22m x 2.44m) .040" (1mm thick). Surface shall have a velvet texture for scratches and abrasions resistance. Class A fire rating and Impact Strength of 30.4 ft-lbs/ inch of thickness as tested in accordance with the procedures specified in ASTM D-256-90b and shall not support fungal or bacterial growth. Joints will be sealed with silicon Sealant.	SQMT	₹ 1,959.00
II	SUB-SECTION	NYLON CARPETS		
1029	TBSC-R.II-01	Supply and installation of Modular Nylon Carpet with 100% Solution Dye PET Yarn, Tufted loop & Multi level loop, with Yarn weight of 500 GSM (30 Oz/ sq.yd) and total tile weight min 2200 gsm, Tile Density 5400 gram per cubic meter or above, pile height 2.5 mm and tile total thick ness 5.0mm, with Primary backing of Multi layer Ecolyte PVC and Fiber Glass back as secondary backing of Size 50 X 50 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (c) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (d) Lightfastness - Pass and with a Product Warranty 10 Years, (e) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive (Pedilite) and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	1,549.00
1030	TBSC-R.II-02	Supply and installation of Modular Nylon Carpet with 100% Solution Dye Nylon, Tufted loop & Multi level loop, with Yarn weight of	1 sqm	2,110.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		610 GSM (18 Oz/ sq.yd) and total tile weight min 2400 gsm, Tile Density 5600 gram per cubic meter or above, pile height 2.5-2.75 mm and tile total thickness 5.25-5.50mm, with Primary backing of Multi layer Ecolyte PVC and Fiber Glass back as secondary backing of Size 50 X 50 cm or 25 x 100 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) CRI Green label certificate for LEED Building points, (c) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (d) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (e) Lightfastness - Pass and with a Product Warranty 10 Years, (f) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive (Pedilite) and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
1031	TBSC-R.II-03	Supply and installation of Modular Nylon Carpet with 100% Solution Dye Nylon, Tufted loop & Multi level loop, with Yarn weight of 900 GSM (30 Oz/ sq.yd) and total tile weight min 3600 gsm, Tile Density 8900 gram per cubic meter or above, pile height 3.5-3.75 mm and tile total thickness 6.25-6.75mm, with Primary backing of Multi layer Ecolyte PVC and Fiber Glass back as secondary backing of Size 50 X 50 cm or 25 x 100 cm and the product when tested and certified complying the (a) Indoor Air Quality - GLP2526 , (b) CRI Green label certificate for LEED Building points, (c) Flooring Radiant Panel - Class1 (ASTM E-648, Made in India, (d) Smoke Density - Less than 450 (ASTM E-662) Less than 3.5 kV (AATCC-134), (e) Lightfastness - Pass and with a Product Warranty 10 Years, (f) Surface Flammability of Carpets and Rugs (ASTM D2859), including installation of carpet tile on a level surface (existing VDF/ tiled floor) using High quality, low VOC water soluble adhesive (Pedilite) and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	3,072.00
1032	TBSC-R.II-04	Supplying and Fixing of Nylon broadloom carpet, 100% Nylon Cut Pile, Digitally Printed, Pile Height 7 mm ($\pm$ 1 mm), Total Height 11 mm ($\pm$ 1 mm), Stitch / 10 cm 37-39 ($\pm$ 2%), Pile Weight Net less Than 800 GSM ($\pm$	1 sqm	3,045.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		5%), Total Weight 1791 GSM ($\pm 5\%$), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Color fastness to LightTest Method of AATCC 16 (20 AFU) ≥ 4.0 at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 ≥ 4 , Flammability (Radiant Panel), Anti Bacterial & Anti Microbial, ASTM E 648 ≥ 0.45 (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPAI Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
1033	TBSC-R.II-05	Supplying and Fixing of Nylon broadloom carpet 100% Nylon Cut Pile , Digitally Printed , Pile Height 8.5 mm (± 1 mm),Total Height 10.5 mm (± 1 mm),Stitch / 10 cm 40.5($\pm 2\%$), Pile Weight Net less Than 1200 GSM ($\pm 5\%$), Total Weight 2186 GSM ($\pm 5\%$), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Color fastness to LightTest Method of AATCC 16 (20 AFU) ≥ 4.0 at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 ≥ 4 , Flammability (Radiant Panel), Anti Bacterial & Anti Microbial, ASTM E 648 ≥ 0.45 (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPAI Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.	1 sqm	3,931.00
1034	TBSC-R.II-06	Supplying and Fixing of Nylon broadloom carpet 100% Nylon Cut Pile , Digitally Printed , Pile Height 10 mm (± 1 mm),Total Height 12 mm (± 1 mm),Stitch / 10 cm 46 ($\pm 2\%$), Pile Weight Net less Than 1500 GSM ($\pm 5\%$), Total Weight 2486 GSM ($\pm 5\%$), Secondary Backing PP Mesh, Gauge 1/8 Cut Pile, Latex Natural Rubber, the product with minimum 5 Years warranty for any manufacturing defects when tested and certified complying the Color fastness to	1 sqm	4,828.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		LightTest Method of AATCC 16 (20 AFU) ≥ 4.0 at 80 Hours , Static Electricity, AATCC 134 Less than 3.5 KV, Hexapod test Method: ASTM D 5252 ≥ 4 , Flammability (Radiant Panel), Anti Bacterial & Anti Microbial, ASTM E 648 ≥ 0.45 (Class I), complete as per specifications, the carpet and underlay (min 6 -8 mm) installed with standard SR 998/SR505/MAPA Adhesives, the flooring installed as per the manufacture's specification and protected with 2 Layers of 50 micron sheets to avoid soiling and 1 time vacuumed cleaning before handover, etc complete for finished item of work.		
III	SUB-SECTION	ACRYLIC SOLID SURFACES		
1035	TBSC-R.III-01	Supply of acrylic solid surfaces made out of acrylic resins and natural materials that are non porous complying with NSF.51 of thickness 6 mm and plain coloured	1 sqm	6,764.00
1036	TBSC-R.III-02	Supply of acrylic solid surfaces made out of acrylic resins and natural materials that are non porous complying with NSF.51 of thickness 12 mm and plain coloured	1 sqm	9,470.00
1037	TBSC-R.III-03	Supply of acrylic solid surfaces made out of acrylic resins and natural materials that are non porous complying with NSF.51 of thickness 6 mm and stone designs and colored with natural grains	1 sqm	9,470.00
1038	TBSC-R.III-04	Supply of acrylic solid surfaces made out of acrylic resins and natural materials that are non porous complying with NSF.51 of thickness 12 mm and stone designs and colored with natural grains	1 sqm	12,738.00
IV	SUB-SECTION	GARBAGE BINS		
1039	TBSC-R.IV-01	Supply of Plastic Garbage bins Made out of high quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 40 litre capacity	Each	755.00
1040	TBSC-R.IV-02	Supply of Plastic Garbage bins Made out of high quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 80 litre capacity	Each	1,409.00
1041	TBSC-R.IV-03	Supply of Plastic Garbage bins Made out of high quality premium grade UV Stabilized	Each	1,911.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 100 litre capacity		
1042	TBSC-R.IV-04	Supply of Plastic Garbage bins Made out of high quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 100 litre capacity with trolley wheels	Each	2,314.00
1043	TBSC-R.IV-05	Supply of Plastic Garbage bins Made out of high quality premium grade UV Stabilized Virgin Polyethylene material, with inside-out smooth finish and non-toxic in nature, having crisscross ribs provided at the bottom and vertical ribs provided at all four-corner side of the bins to prevent corner breakages during regular usage including lid with two side opening for easy garbage collection of the bins size 120 litre capacity with trolley wheels	Each	2,917.00
V	SUB-SECTION	ANCHOR FASTENERS - WEDGE/ EXPANSION/ SLEEVE		
1044	TBSC-R.V-01	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 6 mm	Each	11.00
1045	TBSC-R.V-02	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 8 mm	Each	21.00
1046	TBSC-R.V-03	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 10 mm	Each	31.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1047	TBSC-R.V-04	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 12 mm	Each	41.00
1048	TBSC-R.V-05	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 16 mm	Each	51.00
1049	TBSC-R.V-06	Supply of Anchor fasteners Wedge/ Expansion/ Sleeve type of material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 18 mm	Each	61.00
VI	SUB-SECTION	ANCHOR FASTENERS - CHEMICAL BONDING		
1050	TBSC-R.VI-01	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 6 mm	Each	21.00
1051	TBSC-R.VI-02	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 8 mm	Each	41.00
1052	TBSC-R.VI-03	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 10 mm	Each	61.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1053	TBSC-R.VI-04	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 12 mm	Each	81.00
1054	TBSC-R.VI-05	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 16 mm	Each	101.00
1055	TBSC-R.VI-06	Supply of Anchor fasteners with chemical bonding, with recommended use of approved chemical injection system of for the anchor bolt material zinc-plated carbon steel, hot-dipped galvanized carbon steel, 303 stainless steel or 316 stainless steel conforming to industry standards and diameter, anchor length of minimum 10 ϕ and spacing as per standard design of application - for diameter 18 mm	Each	121.00
VII	SUB-SECTION	PASSIVE FIRE STOP SYSTEM		
1056	TBSC-R.VII-01	Supplying and applying, non-shrinking Portland cement-based, non-intumescent firestop mortar, lightweight cementitious and with a test certificate in accordance with IEC 60068-2-57:1999-11 (Environmental Testing) as per Part 2-67 tested as per Dafatb and DIBT standards, mold resistance rating of 0 as determined by ASTM 021-96, UL-listed & classified with UL and FM approval logo on the packing, as per UL 1479/ASTM E 814 or IS 12458 standards	sqm	24,783.00
1057	TBSC-R.VII-02	Supplying and applying expanding firestop foam, with minimum 2 hours fire rating tested in accordance with UL 1479/ASTM-E 614, for horizontal openings in floors or slabs made of concrete/ masonry or Gypsum after passing service lines like cable trays or cables/cable bundles with and expansion of seven times its volume to fill the cavity at the time of dispensing the material and shall fully cure within two minutes after dispensing, tested as per Dafstb and DIBT standards, W rating as per UL standards with sound insulation of 50 db, mold resistance rating of 0 as determined by ASTM G21-56	1 Sqm	34,620.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and shall have a VOC content of approx. 1.3 g/l as per LEED 2009, in accordance with IEC 60068-2-57:1999-11 (Environmental Testing) as per Part 2-67, UL listed & classified and UL and FM approval logo on the packing		
1058	TBSC-R.VII-03	Supplying and applying Acrylic Firestop Sealant in gaps around non-combustible penetrants like ducts or metal pipes passing through floor slab to provide a minimum 2 hours fire rating, UL 1479/ASTME 814 standards, as per DafStb guidelines with MAF, water and gas tight seal, airborne sound transmission reduction (STC of 50), sound insulation, mold resistance rating of 0 as determined by ASTM G21-96 and VOC content of approx. 75 g/l as per LEED 2009, in accordance with IEC 60068-2-57:1999- 11 (Environmental Testing) as per Part 2-57, UL listed & classified and with UL and FM approval logo on the packing	1 Sqm	5,346.00
1059	TBSC-R.VII-04	Supplying and applying high performance intumescent firestop sealant around combustible penetrations like plastic pipes or ducts/pipes with insulation passing through floor to provide minimum 2 hours fire rating when subject to test standards of UL 1479/ASTM-E 814, surface burning characteristics according to UL 723 (ASTM E84-96), flame spread index 0 and smoke development index 5, sound transmission classification of 66 as per ASTM E 90-99, mold and mildew resistance Class 0 according to ASTM G-21, movement capability approx.. 8% (150 11600) and the average volume shrinkage is 24% according ASTM C1241, sealnt to meet LEED requirements for indoor environmental quality credit (4.1 and 4.2) with a VOC content of 9 g/l, as per Dafstb and DIBT standards, UL listed & classified and bear the UL and FM approval logo.	1 Sqm	8,610.00
S	SECTION	MACHINERY & OTHER HIRE CHARGES		
1060	TBSC-S.I-01	Machine charges of rubbing/ polishing floor	1 Hr	334.00
1061	TBSC-S.I-02	Power Saw Cutter - Hand Operated - Hire charges	1 Hr	157.00
1062	TBSC-S.I-03	Power Drill - Hand Operated - Hire Charges	1 Hr	147.00
1063	TBSC-S.I-04	Grinding Mortar (Special Grinding)	1 Hr	168.00
1064	TBSC-S.I-05	Casuarinas Balli Props - 3" to 4" Diameter - 12'-0" Height	Each	93.00
1065	TBSC-S.I-06	Casuarinas Balli Props - 4" to 8" Diameter - 20'-0" Height	Each	153.00
1066	TBSC-S.I-07	Wall Plate Brackets / beam bottom supports	Each	267.00
1067	TBSC-S.I-08	Wedge Plate fixture	Each	15.00
1068	TBSC-S.I-09	Runner beams of approximately 4" x 4" size	RM	530.00
1069	TBSC-S.I-10	Steel Plates for form works	1 Sqm	1,997.00
1070	TBSC-S.I-11	Scaffolding Pipes & Centering accessories	1 Kg	153.00
1071	TBSC-S.I-12	Scaffold Boards - Bamboo scaffolds - Bamboos	Each	163.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		- 8'0" long		
1072	TBSC-S.I-13	Hire charges for stationary Concrete pump conforming to IS 21573 Part-1: 2006 to deliver the fresh green concrete	1 Hr	427.00
1073	TBSC-S.I-14	Concrete delivery pipes conforming to IS 15947 Part I: 2012 to be connected to the pump to delivery point (150 mm Diameter) hire charges per 10 RM	1 Hr	9.00
T	SECTION	LABOUR CHARGES		
1074	TBSC-T.I-01	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 0.0 M to 1.0 M	1 cum	384.00
1075	TBSC-T.I-02	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 1.0 M to 2.0 M	1 cum	454.00
1076	TBSC-T.I-03	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) - Other than sandy soil - 2.0 M to 3.0 M	1 cum	529.00
1077	TBSC-T.I-04	Bailing out water for earth work excavation / for concrete foundation below water level. (For building items only) Sandy soil - 0.0 M to 1.0 M	1 cum	609.00
1078	TBSC-T.I-05	Bailing out water for earth work excavation /for concrete foundation below water level. (For building items only) Sandy soil - 1.0 M to 2.0 M	1 cum	945.00
1079	TBSC-T.I-06	Bailing out water for earth work excavation /concrete for foundation below water level. (For building items only) Sandy soil - 2.0 M to 3.0 M	1 cum	1,141.00
1080	TBSC-T.I-07	Labour charges for making, fabricating office racks, cup-board shutters etc with ply-wood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	2,033.00
1081	TBSC-T.I-08	Labour charges for making, fabricating kitchen furniture, cup-boards with shutters, box cup-boards, box racks, work-station furniture etc with ply-wood/ MDF sheets, decolam/ veneer laminations including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, pasting sheets/ laminations fixing in position with necessary screws excluding cost of materials, accessories, fittings	1 Sqm	2,825.00
1082	TBSC-T.I-09	Labour charges for making, fabricating any aluminium door/ window/ glazing including fixing cutting, making, assembling, fixing hinges, fixing fixtures, fixing locks, fixing in position with necessary screws excluding cost	1 Sqm	788.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of materials, accessories, fittings excluding cost of anodization		
1083	TBSC-T.I-10	Rounding the edges of Kadapa / Shahabad stone slabs of any thickness including polishing the same	1 Rm	171.00
1084	TBSC-T.I-11	Half Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	515.00
1085	TBSC-T.I-12	Full Rounding the edges of Marble/ Granite stone slabs of all thicknesses including polishing the same.	1 Rm	666.00
1086	TBSC-T.I-13	Machine Cutting charges - for Marble/ Granite slabs up to 50 mm thick by mechanical device.	1 RM	29.00
1087	TBSC-T.I-14	Flat nosing to Kadapa/ Shahabad stone slabs of any thick	1 Rm	83.00
1088	TBSC-T.I-15	Grooves 2-3 mm	1 Rm	93.00
1089	TBSC-T.I-16	Labour charges for fabricating steel works like Window Grills, Compound Wall Grills, Iron Doors, Windows including cost of welding rods, power charges, excluding cost of fixing in position	1 Kg	43.00
1090	TBSC-T.I-17	Labour charges for fixing Iron Doors, Iron Windows and Window Grills in position	1 Kg	8.00
1091	TBSC-T.I-18	Labour charges for fabricating all structural steel works like heavy steel works like Trusses, Stanchions, Heavy Beams and Girders including cost of welding rods, power charges, etc excluding cost of fixing in position	1 Kg	39.00
1092	TBSC-T.I-19	Labour charges for erecting & fixing all structural steel works like heavy iron grills, Trusses, Stanchions, Heavy Beams and Girders erecting in position and fixing by using chain pulley blocks, Derek pole arrangements and cranes etc., complete in position	1 Kg	36.00
1093	TBSC-T.I-20	Labour charges for Fabrication of stainless steel railing works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Kg	213.00
1094	TBSC-T.I-21	Labour charges for Fabrication of stainless steel sheet cladding works using stainless steel welding rods including buffing, polishing, lacquer finishing, to present seamless finish	1 Sqm	2,837.00
1095	TBSC-T.I-22	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Etching works	1 Sqm	1,596.00
1096	TBSC-T.I-23	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Reverse Etching work	1 Sqm	1,974.00
1097	TBSC-T.I-24	Labour charges for Glass designing works on any thickness of Glass including fixing at site - Acid wash works	1 Sqm	2,466.00
1098	TBSC-T.I-25	Labour charges for fixing Flush door shutters	1 Sqm	642.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		of any thickness to the existing door frame including fixing the fixtures to the door shutter excluding cost of shutter		
1099	TBSC-T.I-26	Labour charges for fixing glass panes of any thickness to the existing door / window panes including fixing the beading excluding cost of beading	1 Sqm	478.00
1100	TBSC-T.I-27	Labour charges for wrought and put up including fixing in position for Teak wood Fully paneled doors external or internal including frame	1 Sqm	2,755.00
1101	TBSC-T.I-28	Labour charges for wrought and put up including fixing in position for Teak wood Glazed and paneled doors including fixing glass including frame	1 Sqm	2,586.00
1102	TBSC-T.I-29	Labour charges for wrought and put up including fixing in position for Teak wood Framed and planked doors including frame	1 Sqm	2,285.00
1103	TBSC-T.I-30	Labour charges for wrought and put up including fixing in position for Teak wood Lugged, braced and planked doors including frame	1 Sqm	1,787.00
1104	TBSC-T.I-31	Labour charges for wrought and put up including fixing in position for Teak wood Flush type door shutter including frame	1 Sqm	1,345.00
1105	TBSC-T.I-32	Labour charges for wrought and put up including fixing in position for Teak wood Windows glazed including outer frame and shutter frame	1 Sqm	1,748.00
1106	TBSC-T.I-33	Labour charges for wrought and put up including fixing in position for Teak wood Windows paneled including outer frame and shutter frame	1 Sqm	2,658.00
1107	TBSC-T.I-34	Labour charges for wrought and put up including fixing in position for Teak wood Windows lugged, braced and planked including outer frame	1 Sqm	1,816.00
1108	TBSC-T.I-35	Labour charges for wrought and put up including fixing in position for Teak wood Windows framed and planked including outer frame and shutter frame	1 Sqm	2,170.00
1109	TBSC-T.I-36	Labour charges for wrought and put up including fixing in position for Teak wood Ventilators glazed, fixed with double frame with wire netting including frame	1 Sqm	1,416.00
1110	TBSC-T.I-37	Labour charges for wrought and put up including fixing in position for Teak wood Swing ventilators glazed including outer frame and shutter frame	1 Sqm	1,801.00
1111	TBSC-T.I-38	Labour charges for wrought and put up including fixing in position for Teak wood Weld mesh doors and windows including outer frame and shutter frame	1 Sqm	942.00
1112	TBSC-T.I-39	Labour charges for wrought and put up including fixing in position for Teak wood G.I or .AC sheet door & windows including outer	1 Sqm	1,062.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		frame and shutter frame		
1113	TBSC-T.I-40	Labour charges for wrought and put up including fixing in position for Other than teakwood Fully paneled doors external or internal including frame	1 Sqm	2,363.00
1114	TBSC-T.I-41	Labour charges for wrought and put up including fixing in position for Other than teakwood Glazed and paneled doors including fixing glass including frame	1 Sqm	3,920.00
1115	TBSC-T.I-42	Labour charges for wrought and put up including fixing in position for Other than teakwood Framed and planked doors including frame	1 Sqm	1,960.00
1116	TBSC-T.I-43	Labour charges for wrought and put up including fixing in position for Other than teakwood Ledged, braced and planked doors including frame	1 Sqm	1,533.00
1117	TBSC-T.I-44	Labour charges for wrought and put up including fixing in position for Other than teakwood Flush type door shutter including frame	1 Sqm	1,081.00
1118	TBSC-T.I-45	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows glazed including outer frame and shutter frame	1 Sqm	1,618.00
1119	TBSC-T.I-46	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows paneled including outer frame and shutter frame	1 Sqm	2,425.00
1120	TBSC-T.I-47	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows ledged, braced and planked including outer frame	1 Sqm	1,660.00
1121	TBSC-T.I-48	Labour charges for wrought and put up including fixing in position for Other than teakwood Windows framed and planked including outer frame and shutter frame	1 Sqm	1,978.00
1122	TBSC-T.I-49	Labour charges for wrought and put up including fixing in position for Other than teakwood Ventilators glazed, fixed with double frame with wire netting including frame	1 Sqm	1,368.00
1123	TBSC-T.I-50	Labour charges for wrought and put up including fixing in position for Other than teakwood Swing ventilators glazed including outer frame and shutter frame	1 Sqm	1,722.00
1124	TBSC-T.I-51	Labour charges for wrought and put up including fixing in position for Other than teakwood Weld mesh doors and windows including outer frame and shutter frame	1 Sqm	882.00
1125	TBSC-T.I-52	Labour charges for wrought and put up including fixing in position for Other than teakwood G.I or .AC sheet door & windows including outer frame and shutter frame	1 Sqm	1,000.00
1126	TBSC-T.I-53	Dressing faces of granite stone (double line dressing)	1 Sqm	294.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1127	TBSC-T.I-54	Dressing faces of other than granite stone(double line dressing)	1 Sqm	183.00
1128	TBSC-T.I-55	Labour charges for removing and refixing with complete servicing of the MS Windows	1 Sqm	624.00
U	SECTION	DISMANTLING		
1129	TBSC-U.I-01	Stone masonry in cement mortar	1 Cum	666.00
1130	TBSC-U.I-02	Terracing work in roofs or floors	1 Sqm	29.00
1131	TBSC-U.I-03	Flat stones in roof or floors including lifting	1Sqm	27.00
1132	TBSC-U.I-04	Pan tiled or Mangalore tiled roof without roof timbers.	1Sqm	24.00
1133	TBSC-U.I-05	Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	1Sqm	27.00
1134	TBSC-U.I-06	Wrought and framed timber in roofs or floors	1 Cum	347.00
1135	TBSC-U.I-07	Old lime mortar plaster	1Sqm	9.00
1136	TBSC-U.I-08	Old cement mortar plaster	1Sqm	11.00
1137	TBSC-U.I-09	Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	108.00
1138	TBSC-U.I-10	Revetment for aprons and stacking grouted within 40 lead	1 Cum	82.00
1139	TBSC-U.I-11	Kadapa slabs or Shahabad stone slabs flooring on sand bed	1Sqm	14.00
1140	TBSC-U.I-12	Through scraping of old plastered surface	1Sqm	9.00
1141	TBSC-U.I-13	Washing of plastered surface with soap, soda and water (or with soda lime and water)	1Sqm	6.00
1142	TBSC-U.I-14	Clean removal of lime plaster from walls and raking out joints 20 mm deep or from terraced roof and raking out joints up to 50 mm deep	1Sqm	9.00
1143	TBSC-U.I-15	Clean removal of cement plaster from walls and raking out joints 20 mm deep or from terraced roof and raking out joints from 50 mm to 100 mm deep	1Sqm	11.00
V	SECTION	GYPSUM PLASTER		
1144	TBSC-V.I-01	Supply and applying 20 mm thick fine Gypsum plaster on internal RCC surfaces like Ceilings, Beams, Columns, walls duly preparing the surfaces clean and dry including cost of material, application charges to make even surface, labour charges, unloading, loading, scaffolding etc complete for finished item of work.	1Sqm	608.00
1145	TBSC-V.I-02	Supply and applying 12 mm thick fine Gypsum plaster on internal RCC surfaces like Ceilings, Beams, Columns, walls duly preparing the surfaces clean and dry including cost of material, application charges to make even surface, labour charges, unloading, loading, scaffolding etc complete for finished item of work.	1Sqm	365.00
W	SECTION	PANELS		
1146	TBSC-W.I-01	Providing and fixing in position, 200mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with	1Sqm	3,878.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		shotcrete materials on outer faces. The fabric mesh shall be made of 3mm dia GI wire mesh with 50 mm pitch in both the directions and on both faces of the wall kept at 120-135 mm gap and connected by the zig zag GI wire of 3mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3(1 cement; 3 coarse sand (not having more than 40% stone chips of size up to 6mm) with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100 kN/m ²) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respects as per drawing and specifications and under the overall direction of the Engineer-in-Charge		
1147	TBSC-W.I-02	Providing and fixing in position, 230 thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3mm GI wire mesh with 50 mm pitch in both the directions and on both faces of the panel kept at 120-135 mm gap and connected by the zig zag GI wire of 3mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1:3 (1 cement; 3 coarse sand (not having more than 40% stone chips of size up to 6mm) with the help of shotcreting equipment etc at a pressure not less than 1 bar (100 kN/m ²) and surfaces finished with trowel. The top face of the panel shall be provided and finished by applying 70-75mm thick layer of cement concrete 1:1.5:3 (1 Cement : 1.5 Coarse sand : 3 graded stone aggregate 20 mm nominal size)Fixing operations of roof/floor panels shall be completed in all respects as per drawing and specifications and under the overall direction of the Engineer-in-Charge	1Sqm	4,104.00
1148	TBSC-W.I-03	Supply and Installation of 12 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent, Supply and installation of translucent roof with DPI flux standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel	1Sqm	3,767.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		system of min 12 mm thick of 900 mm min width with angular daylighting concept. Panels shall have minimum six layers with truss bridge design for higher flexibility and strength. Panels with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with 3 numbers self drilling screws and trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull out load of min 7000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. Panels shall not have yellowness index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.6 W/m ² K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.		
1149	TBSC-W.I-04	Supply and Installation of 16 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent Supply and installation of DPI Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 16 mm thick of 1200 mm min width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility and strength. Panels with opaque translucent clear combination as per required flux level and design requirements with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance.	1Sqm	4,786.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured on MS structure (will be paid separately) with 3 numbers self drilling screws and trapezoid SS fasteners holding the base of the standing seam offering best stability having a pull out load of min 7000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. Panels shall not have yellowness index as per ASTM D 1925 of 15 units when tested on a sample exposed to UV for 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m²K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.		
1150	TBSC-W.I-05	Supply and Installation of 18 mm thick Flux standing seam polycarbonate panel system of DPI Daylighting or Equivalent, Supply and installation of DPI Flux translucent roof with standing seam multicell polycarbonate panel system. The system with complete assembly of co extruded UV protected multicell panels incorporated into a complete system. Co extruded UV protected polycarbonate panel system of min 18 mm thick of 1200 mm min width with angular daylighting concept. Panels shall have minimum seven layers in a truss bridge design for higher flexibility and strength. Panels with opaque translucent clear combination as per required flux level and design requirements with all fixing accessories to ensure best performance for wind uplift vibration, oil canning and visual appearance. Panels shall have an additional IR Blocking features for enhance thermal comfort. Panels shall be manufactured with vertical standing seam at both sides of the panel. Panels shall be fixed on Purlin with snap on connectors with double tooth grip lock locking mechanism and will be secured	1Sqm	5,196.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		on MS structure (will be paid separately) with a continuous aluminium I Beam holding the base of the standing seam along the length of the panel and fixed with purlin with self drilling hex head screws offering best stability with a pull out load of min 21000N tested as per ISO 6892-1998 and IS 1608-2005 as per design requirement. Panels must satisfy dart drop impact test as per IS 14443-97 shall show no sign of breakage on Polycarbonate sheets which have been exposed to UV for a min of 500 Hours as per ASTM G 155. U value shall not be more than 1.9 W/m ² K as per EN ISO 10077-2;2018. Panel shall be with additional end cap/ Aluminium U/F profile/Glazing Bar for ends as required. Panel shall be fixed over MS structural steel/MS purlin (paid separately) conforming to the detail technical specifications as per approved architectural drawings. Trained and factory authorized labour with supervision to complete the entire panel installation as per drawing & direction of the Engineer-in-Charge.		
X	SECTION	POST-TENSIONING WORKS		
1151	TBSC-X.I-01	Supply of Freyssinet type wedge action anchorage cone block, couplers, anchor heads and wedges of cast iron make shot blasting finish complete assembly of size 400 x 300 mm as per IS 1343 : 2012	1 No	2,162.00
1152	TBSC-X.I-02	Supply of GI corrugated sheathing duct of 0.3mm thick of 90 mm size for installing the tendons for bonded post tensioning work as per IS 1343 : 2012	1 RM	58.00
1153	TBSC-X.I-03	Supply of HDPE grout hose with flanges for bonded post tensioning work as per IS 1343 : 2012	1 RM	35.00
1154	TBSC-X.I-04	Design and execution of post tensioning work, including supplying, laying of HT tendon strands, decoiling, the strands, cutting to the required lengths, laying of HT strands in sheathing (GI corrugated ducts 0.3mm thick) jointing with couplers and inserting the strands, profiling, fixing live end anchorages, making dead end anchorages, including flowering the strands, fixing tendon support bars, supervising the fixing of antibursting reinforcement, stressing the cables using hydraulic jack, end trimming, grouting the cables, with cement slurry, mixed with admixtures with required tools, plants, and machineries, and consumables etc., including all leads, lifts, coordination, with the post- tensioning agency, preparation of drawings, obtaining	1 MT	2,16,041.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		approval from the Engineer-in-Charge with supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc.,		
1155	TBSC-X.I-05	Supply of uncoated Stress Relieved Strand for Prestressed Concrete or Post-Tensioning conforming to IS 6006 - 1983 and IS 14268 - 2017 of Class 1 & 2, as supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc. for - PT Strand 12.7 mm	1 MT	99,316.00
1156	TBSC-X.I-06	Supply of uncoated Stress Relieved Strand for Prestressed Concrete or Post-Tensioning conforming to IS 6006 - 1983 and IS 14268 - 2017 of Class 1 & 2, as supply of approved grade tendons but excluding the cost of concrete, reinforcement steel, shuttering, anchors, sheathing duct etc. for - PT Strand 15.2 mm	1 MT	1,01,453.00
Y	SECTION	SPECIAL WORKS & ITEMS		
1157	TBSC-Y.I-01	Supplying and placing the EXPOSED TERRACE Waterproofing system - Terrace Waterproofing - Cleaning & Surface Preparation: Substrate to which the PU waterproofing is applied must be cleaned and prepared thoroughly to form a sound base for the application duly removing Any laitance, oil, contaminants & other irregularities present on the surface.	1 Sqm	1,335.00
		1) Treatment of Drain Pipe Fittings: using SBR based bonding agent, Non-shrink self-compacting high strength cementitious mortar, PU sealant		
		2) Construction Joint Treatment: "V" shaped groove shall be router and SBR Based Bonding Agent to be applied followed by High strength mortar and setting.		
		3) Wall & Slab Junction: "V" shaped groove shall be router and PU sealant to be applied followed by High strength mortar and Geo-textile of 120 GSM to be fixed.		
		4) Primer Coat: One component MICROSEALER-50 polyurethane based roller / brush applied 0.1kg/sqm to form a strong adhesive layer for the main PU waterproofing coat. The primer coat shall have specified properties:		
		5) PU Waterproofing Coat: One component HYPERDESMO CLASSIC polyurethane based roller / brush applied @1.6kg/sqm in two coats to form a strong elastic, adhesive and resistant layer; to be CE certified with 25 years of working life.		

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		6) Protective Top Coat: One component aliphatic, HYPERDESMO-ADYE elastic polyurethane coat based roller/ brush applied 0.2kg/sqm coats to form a strong elastic, adhesive and resistant protective layer; to be CE certified with 25 years of working life.		
1158	TBSC-Y.I-02	Supply & fixing of elevation cladding using factory made fiber cement board of 2438mm*1219mm*8mm thick of Everest make and cutting the board to the size of 2400mmx600mm to be fixed to the wall with screw of 5mm diameter and length of 63.5mm@ every 457mmc/c distance with a groove size of 20mm in between two boards along the vertical direction all through the length as per approved design and pattern including cost and conveyance of boards, cost of painting (mixed painting) to the cladding and scaffolding to site & all cutting wastages, including all incidental, operational ,labour charges such as cutting ,placing in position etc complete and cost of overheads & contractors profit for finished item of work for external walls-(including cost of access scaffolding)	1 Sqm	2,737.00
1159	TBSC-Y.I-03	Design supply & installation of spider glazing system designed to withstand the wind pressure held with spider fitting of SS-316 grade SS spider & bolt assembly with laminated glass fins 21.52mm thick. The glass fin and glass panel assembly shall be connected to slab/beam by means of SS-316 grade stainless steel brackets & anchor bolts and at the bottom using SS channel of 50*25*2mm using fastener& anchor bolts ,non staining weather sealants etc as per specifications and approved drawings. The complete system to be design to accommodate thermal expansion & seismic movements etc	1 Sqm	12,470.00
		PATCH FITING DOOR:- Providing and fixing 12mm thick clear toughened frame lee double leaf glass door in entrance area the door shall be fitted with patch fitting with floor spring floor lock, top and bottom patch fitting etc as per approved shop drawing.		
1160	TBSC-Y.I-04	Supply & fixing 100mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall top coat as per specification including cost and conveyance of boards, all incidental, operational, labour charges such as	1 Sqm	1,680.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		cutting, placing in position etc., complete and cost of overheads & contractors profit for finished item.		
1161	TBSC-Y.I-06	Supplying and fixing of Unplasticised Poly Vinyl Chloride (UPVC) combination villa casement window - (open-fixed-open with top fixed in 2 parts with grill fixed inside so that the shutters to be openable outside with mesh shutters opening inside) in white colour duly manufactured using UPVC reinforced profiles (Composition of profile shall consists a minimum 6 PHR OF TiO ₂ and not more than 10 PHR of CaCO ₃ for every 100 parts of PVC resin) of sections not less than (109mm x 58mm x 2.20mm for outer frames, 78/40mmx60mmx2.20mm for casement shutter frames capable of mounting single glazing and double glazing system, fixed Mullion T made of 109x79mm reinforced with hot dip galvanized upto 120 GSM of minimum thickness of 1.2mm for outer frame/1.5mm for Sash prefabricated & welded through fusion welding including 10mm square guard bars with 6" (152.4mm) pitch. The window sash shall be fitted with 5mm float Glass reputed make duly fixed with black color Gasket for sash & Glazing bead and accessories for casement window - friction hinges of stainless steel grade 304-2 no.s per sash, handle 1 no.per sash, Espag locking system suitable concealed 1 No.per sash provided with raiser wedges for smooth operation and the system is to be installed at site using anchor fasteners, UV Resistant silicon sealant outside and paintable silicon sealant inside.	1 Sqm	13,616.00
1162	TBSC-Y.I-07	Providing and Fixing of Stone Polymer Composite Tile of thickness of 4 mm Core with wear layer is of 0.3mm and has an IXPE Cushion backing of 1mm, 100% Water & Termite proof, Scratch/Fire /UV Resistant, a Recyclable Green product having interlocking system with suitable skirting with a warranty of 5 years of indoor application only, low and semi traffic areas, complete for finished item of work	1 Sqm	1,804.00
1163	TBSC-Y.I-08	Providing and Fixing of Stone Polymer Composite Tile of thickness of 5 mm Core with wear layer is of 0.5mm and has an IXPE Cushion backing of 1mm, 100% Water & Termite proof, Scratch/Fire /UV Resistant, a Recyclable Green product having interlocking system with suitable skirting with a warranty of 5 years of indoor application only, low and semi traffic areas, complete for finished item of work	1 Sqm	2,113.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
Z	SECTION	BARRICADING & STATE FUNCTIONS		
1164	TBSC-Z.I-01	Fixing steel barricading with MS angle iron pets and GI pipes with nuts and bolts etc and its removal of the same after the function is over including transporting the barricading materials from the Divisional Stores to the barricading Site duly engaging the labour to load, transport and unload the material at barricading authorities and again loading back into trucks unloading at divisional stores. Accounting for the received materials as per site requirement hire charges for lorries engaged, labour engaged for loading unloading ,fixing ,handling etc complete for finished item of work.	1 RM	14.00
1165	TBSC-Z.I-02	Drilling holes in Bitumen /CC road 1/2" Dia and 1' feet depth using ack Hammer drill compressor operated machine on tractor for the purpose of erection barricading on the roads as directed by the departmental officers incharge.	Each	33.00
1166	TBSC-Z.I-03	Fixing of weld mesh jally to the existing barricades of MS angle iron pegs and GI pipes duly tying with barbed wire and its removal after the function is over including removing and transportation of the weld mesh material from the divisional stores to the site duly engaging the labour to load and unload the material at site as as per the schedule given by the department and again loading back into trucks ,unloading at the divisional stores and hire charges of the lorries engaged, labours charges for loading, unloading, fixing, handling etc complete for finished item of work.	1 Sqm	54.00
1167	TBSC-Z.I-04	Supply and erection of Weld mesh grill Jally for 1 days to the existing board with GI/nuts and bolts including to & fro of the materials, labour transport etc complete.	1 Sqm	108.00
1168	TBSC-Z.I-05	Supply and erection of Weld mesh grill Jally for 2 days to the existing board with GI/nuts and bolts including to & fro of the materials, labour transport etc complete.	1 Sqm	140.00
1169	TBSC-Z.I-06	Supply and Fixing of weld mesh grill jally to the existing barricades of MS angle iron pegs and GI pipes duly tying with G.I. /Nuts and bolts including to & Fro of the material , labour charges , transport ...etc., complete. 3 days	1 Sqm	161.00
1170	TBSC-Z.I-07	Erection of Water Proof Pandal with Super Structure with Pipe and Trusses and top with GI Sheets fixing with nuts and bolts and fixing of ceiling cloth including transportation and all labour charges for loading & unloading	1 Sqm	269.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and erection and removal after the function is over.		
1171	TBSC-Z.I-08	Supply and Erection of prefabricated Structural Steel stage with wooden tap platform plank stages and removal of the same after the function is over including tying cross bracings to make the stage perfect level, horizontal and firm including cost of transportation, labour charges for loading ,unloading and erection etc complete for finished item of work for a height of 3'0".	1 Sqm	269.00
1172	TBSC-Z.I-09	Supply and Erection of Pre-Fabricated Structural Steel stage with Wooden tap platform plank stages duly fabricated using 3" dia M.S. B class pipes tying firmly with nuts and bolted and in correct position at 5'-0" height and providing cross Bracing with M.S. pipe for horizontal and diagonal bracing at center to center for supports including tying cross bracings to make the stage perfect level, horizontal and firm including cost of transportation, labour charges for loading , unloading and erection ...etc., complete for finished item of work for a height of 5'-0"	1 Sqm	484.00
1173	TBSC-Z.I-10	Supply and Erection of Pre-Fabricated Structural Steel stage with Wooden tap platform plank stages duly fabricated using 3" dia M.S. B class pipes tying firmly with nuts and bolted and in correct position at 6'-0" height and providing cross Bracing with M.S. pipe for horizontal and diagonal bracing at center to center for supports including tying cross bracings to make the stage perfect level, horizontal and firm including cost of transportation, labour charges for loading , unloading and erection ...etc., complete for finished item of work for a height of 6'-0"	1 Sqm	646.00
1174	TBSC-Z.I-11	Erection of prefabricated structural steel stage with wooden tap platform plank stages and removal of the same after the function over including tying cross bracings to make the stage perfect level, horizontal and firm including cost of transportation, labour charges for loading, unloading and erection etc complete for finished item of work for a height of 1'-0".	1 Sqm	108.00
1175	TBSC-Z.I-12	Hire charges for M.S Iron stair case for connecting up to 3'-0" height stage level and dimension of each step being 10" thread size and 6 inch riser size and connected with all necessary nuts and bolts and welded on either sides of the main stage of 3'-0" height including the fixing of the steps railing to both sides of the staircase.	Each	3,500.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1176	TBSC-Z.I-13	Hire charges for M.S Iron doglegged stair case for connecting from 3'-0" to 6'-0" height stage level and dimension of each step being 10" thread size and 6 inch riser size and providing intermediate landing of 5'-0" x 5'-0" size space and connected with all necessary nuts and bolts and welded on either sides of the main stage of 6'-0" height including the fixing of the steps railing to both sides of the staircase.	Each	7,500.00
1177	TBSC-Z.I-14	Hire charges for supply & erection of 165'-0" clear aluminium german hanger structure of apex height 40'-0" and side pillars height at 16'-0" over the public seating area in front of the stage with waterproof and fire retardant PVC fabric roof supported over aluminium channel rafters and bracings to support the rafters load over the aluminium pillars entire structure fixed to the ground by anchoring the base plates with 16 mm dia S.S anchor bolts of 8 inches depth into the ground or anchoring base plates with the 3 feet length crow bars hammered into the ground to a depth of 18" for the stability of the structure to withstand from wind load pressures	1 Sqm	807.00
1178	TBSC-Z.I-15	Hire charges for supply & erection of 132'-0" clear aluminium german hanger structure of apex height 36'-0" and side pillars height at 16'-0" over the public seating area in front of the stage with waterproof and fire retardant PVC fabric roof supported over aluminium channel rafters and bracings to support the rafters load over the aluminium pillars entire structure fixed to the ground by anchoring the base plates with 16 mm dia S.S anchor bolts of 8 inches depth into the ground or anchoring base plates with the 3 feet length crow bars hammered into the ground to a depth of 18" for the stability of the structure to withstand from wind load pressures	1 Sqm	753.00
1179	TBSC-Z.I-16	Hire charges for supply & erection of 100'-0" clear aluminium german hanger structure of apex height 33'-0" and side pillars height at 16'-0" over the public seating area in front of the stage with waterproof and fire retardant PVC fabric roof supported over aluminium channel rafters and bracings to support the rafters load over the aluminium pillars entire structure fixed to the ground by anchoring the base plates with 16 mm dia S.S anchor bolts of 8 inches depth into the ground or anchoring base plates with the 3 feet length crow bars hammered into the ground to a depth of 18" for the stability of the structure to withstand from wind load pressures	1 Sqm	700.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1180	TBSC-Z.I-17	Hire charges for supply & erection of 82'-0" clear aluminium german hanger structure of apex hieght 28'-0" and side pillars hieght at 16'-0" over the public seating area in front of the stage with waterproof and fire retardant PVC fabric roof supported over aluminium channel rafters and bracings to support the rafters load over the aluminium pillars entire structure fixed to the ground by anchoring the base plates with 16 mm dia S.S anchor bolts of 8 inches depth into the ground or anchoring base plates with the 3 feet length crow bars hammered into the ground to a depth of 18" for the stability of the structure to withstand from wind load pressures	1 Sqm	565.00
1181	TBSC-Z.I-18	Hire charges for supply & erection of 65'-0" clear aluminium german hanger structure of apex hieght 24'-0" and side pillars hieght at 16'-0" over the public seating area in front of the stage with waterproof and fire retardant PVC fabric roof supported over aluminium channel rafters and bracings to support the rafters load over the aluminium pillars entire structure fixed to the ground by anchoring the base plates with 16 mm dia S.S anchor bolts of 8 inches depth into the ground or anchoring base plates with the 3 feet length crow bars hammered into the ground to a depth of 18" for the stability of the structure to withstand from wind load pressures	1 Sqm	484.00
1182	TBSC-Z.I-19	Hire Charges for Supply & Erection of Aluminium German Hanger Structure of 50'-0" clear span and Apex height of 19'-0" and sides pillar hieght at 16' over the public seating with the roof Covered by water proof Fire Retardant PVC Fabric over the main stage dias and general public seating area including all labour charges for loading & unloading and erection and removal after the function is over.	1 Sqm	404.00
1183	TBSC-Z.I-20	Hire Charges for Supply & Erection of Aluminium German Hanger Structure of 40'-0" clear span and Apex height of 18'-0" and sides pillar hieght at 16' over the public seating with the roof Covered by water proof Fire Retardant PVC Fabric over the main stage dias and general public seating area including all labour charges for loading & unloading and erection and removal after the function is over.	1 Sqm	323.00
1184	TBSC-Z.I-21	Hire charges for Iron railing at 1 feet hieght by welding on all sides of the main stage as per the norms and removing after function is over.	1 RM	328.00
1185	TBSC-Z.I-22	Arrangement of Cloth Draping for german hanger ceiling over main dias area and main	1 Sqm	215.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		dias backside with all frame supports attached to ceiling for decorating the ceiling with white Coloured cloth drapes at a hieght of 28 feet and 16 Feet including all tailoring and stiching charges for preparation of white colour cloth sizes		
1186	TBSC-Z.I-23	Supply and Erection of VIP Lounge Arrangements with wooden flooring, Aluminium pagoda roofing with 3 sides packing with Rexsin side wall, Brand new carpet for mobile toilets with waste collection unit along with technician and filling of water in the water collection unit and all opeartional charges,,,, etc complete. ,Dressing table and VIP seating arrangements...etc, 1side of main stage dias of Hon'ble Chief Minister .	Each	54,000.00
1187	TBSC-Z.I-24	Masking of stage and truss sides with neat and new cloth to cover the structure and removing of the same after function is over .	1 Sqm	65.00
1188	TBSC-Z.I-25	Supply & Erection Hire charges for supply & erection of iron-mast frame structures with iron truss beams interconnected by nuts and bolts to the adjacent connecting iron-mast framed structures and supported from the gound by 3 feet length crow bar supports hammered to the ground upto a depth of 18" into the ground to withstand the structure from heavy wind load pressures in the venue and total hieght in the entire structure at 14'-0" hieght and roof ceiling covered with double cloth falseceiling cloth for providing shade and shelter to the public	1 Sqm	215.00
1189	TBSC-Z.I-26	Providing octonium panels fixed in Aluminium section channels for provision of Artist Make-up rooms.	1 Sqm	344.00
1190	TBSC-Z.I-27	Supply and Placing of VIP portable Hand Wash basins for the dining section along with the provision of all necessary, water storage unit, waste water collection unit and necessary water supply line and hand wash soap liquid and napkins and tissue papers along with dressing mirror fitout in the portable hand wash basin unit and along with technician and filling of water in the water collection unit and all opeartional charges... etc complete.	Each	25,000.00
1191	TBSC-Z.I-28	Supply and laying of steps up to height of 0'-06" height etc complete.	Each	100.00
1192	TBSC-Z.I-29	Supply and erection of corrugated G.I sheet side walls with iron poles including to and fro of material, labour, transport etc complete.	1 Sqm	215.00
1193	TBSC-Z.I-30	Hire charges for wooden plywood steps upto the height of 1'-0" hieght stage level and dimension of each step being 10" thread size	Each	1,000.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
		and 6 inch riser size with necessary material and labour charges..etc.,complete.		
1194	TBSC-Z.I-31	Providing official Stainless steel display stands of size 16" x 12" for the display of the names of the Dignitaries/ designated official seating arrangement .	Each	900.00
1195	TBSC-Z.I-32	Supply and placing of Q-Managers including all material and labour chargers ...etc, complete.	1 RM	984.00
1196	TBSC-Z.I-33	Supply and erection of view cutters with causina ballies and white cloth including all labour charges for erection and removal etc complete.	1 Sqm	108.00
1197	TBSC-Z.I-34	Supply and laying of wooden Tea pois with white cloth covered over the teapois of good quality and condition including loading, unloading , spreading and clearing and its removing the same after function is over,etc complete.	Each	700.00
1198	TBSC-Z.I-35	Supply and Laying Regin Cushion VIP Executive Chairs of new and good looking including transportation and labour charges for all loading and unloading etc complete.	Each	1,500.00
1199	TBSC-Z.I-36	Hire charges for providing wooden podium for the VIP or CM with shelf for storing the papers and neatly covered by white cloth and provision given for the mikes to stand on the podium as per the convinience and comfort of the speaker	Each	5,000.00
1200	TBSC-Z.I-37	Supply and laying of Good Quality Malaysian chairs including cleaning and spreading as specified by the Department.	Each	100.00
1201	TBSC-Z.I-38	Supply and making of back drop duly making the frame work with decorative cloth	Each	10.00
1202	TBSC-Z.I-39	Supply and spreading of New synthetic carpets.	1 Sqm	108.00
1203	TBSC-Z.I-40	Supply and laying of old and good looking synthetic mat etc complete.	1 Sqm	54.00
1204	TBSC-Z.I-41	Supply and placing of Steel Dust Bin Tubs Including all loading, unloading ,transportation and c/c all charges and removing of same after function is over...etc., complete.	Each	500.00
1205	TBSC-Z.I-42	Supply and placing of steel table including spreading and labour and transport charges removal after the function is over.	Each	150.00
1206	TBSC-Z.I-43	Supplying and Spreading Chowkies with wooden top for sprekar and photographers and other proposes. 4'-0" x 4'-0"	Each	100.00
1207	TBSC-Z.I-44	Erection of wooden top platform plank of 4" height platform and removal of the same after the function over including packing to make the stageplatform perfect level, horizontal and firm including cost of transportation, labour charges for loading, unloading and erection etc complete for finished item of work for a height of 0'-04".	1 Sqm	108.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1208	TBSC-Z.I-45	Supply and placing 4'-0" Dia Round table including all loading , unloading and transportation ..etc., complete and removing the same after functionis over.	Each	400.00
1209	TBSC-Z.I-46	Supply and placing 5'-0" Dia Round table including all loading , unloading and transportation ..etc., complete and removing the same after functionis over.	Each	500.00
1210	TBSC-Z.I-47	Supply and placing of 19 seater CM Dining Table arranged Including all loading,unloading , transportation and removing the same after function is over etc., complete.	Each	15,000.00
1211	TBSC-Z.I-48	Supply and placing of 19 Nos VVIP Dining Chairs for the arranged VVIP Dining Table Including all loading and c/c all charges etc.,	Each	1,500.00
1212	TBSC-Z.I-49	Supply & Erection of Iron pillar truss structure with iron trusses connected with nuts and bolts and fixing of double cloth false ceiling including all labour charges for loading & unloading and erection and removal after the function is over. At TMM ^& Br Ambedkar Statue	1 Sqm	215.00
1213	TBSC-Z.I-50	Supplying PVC mould chairs VIP attractive colour and good quality and condition including , loading, unloading spreading and clearing and its removal after the functions over.	Each	25.00
1214	TBSC-Z.I-51	Provision of Raised water storage tank capacity of 2000 Litres total same capacity tanks of 2 Nos including all loading and arranging charges etc.,	Each	3,000.00
1215	TBSC-Z.I-52	Supply and erection of back drop duly making the frame works with polythene sheet and white cloth.	1 Sqm	108.00
1216	TBSC-Z.I-53	Hire charges for supply and placing of m.s. Iron stand for holding of barricadding jalli of light weight including all charges ...etc., complete.	Each	224.00
1217	TBSC-Z.I-54	Supply and laying of land scaping duly placing with potted plants in and around the Gallerys and removing the same after function is over .	Each	100.00
1218	TBSC-Z.I-55	Supplying and fixing of Frills as per the instructions of departmental officers.	Each	46.00
1219	TBSC-Z.I-56	Provision of HDPE water storage Drums each capacity of 200 Litres total same capacity Drums including all loading and arranging charges etc.,	Each	200.00
1220	TBSC-Z.I-57	Supply of white sheets (Chandini Sheets) includng loading , unloading and transportation and supply and removal of the same after the function is over.	1 Sqm	323.00
1221	TBSC-Z.I-58	Supply and laying of center table with glass new and good looking including all labour and transport etc complete.	Each	700.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1222	TBSC-Z.I-59	Supply and Erection of Aluminium German Pagoda of size 10'-0"x10'-0" for water proofing for public seating arrangement	Each	8,000.00
1223	TBSC-Z.I-60	Supply and Erection of Aluminium German Pagoda of size 15'-0"x15'-0" for water proofing for public seating arrangement.	Each	10,000.00
1224	TBSC-Z.I-61	Supply and Erection of Aluminium German Pagoda of size 20'-0"x20'-0" for water proofing of Dining Area	Each	13,000.00
1225	TBSC-Z.I-62	Supply and laying leather/Cushion VIP sofa set 3 seater of and new and good looking with New White Cloth cover including transportation and labour	Each	2,500.00
1226	TBSC-Z.I-63	Supply and laying leather/Cushion VIP sofa set 2 seater of and new and good looking with New White Cloth cover including transportation and labour	Each	2,000.00
1227	TBSC-Z.I-64	Supply and laying leather/Cushion VIP sofa set 1 seater of and new and good looking with New White Cloth cover including transportation and labour	Each	1,500.00
1228	TBSC-Z.I-65	Supply and laying steel/Metallic sofa sets 2 Seater new and good looking with white cloth including transportation and labour charges for all loading and unloading etc complete.	Each	800.00
1229	TBSC-Z.I-66	Supply and laying steel/Metallic sofa sets 3 Seater new and good looking with white cloth including transportation and labour charges for all loading and unloading etc complete.	Each	1,200.00
1230	TBSC-Z.I-67	Supply and lime powder including cost and conyence of all material and labour charges etc complete.	Bag	200.00
1231	TBSC-Z.I-68	Fixing and removal of canopy over saluting base dias with all necessary fittings etc complete.	Job	5,000.00
1232	TBSC-Z.I-69	Erection of Temporary Stage cum watch towers for observation by the Police using casunia ballies of 6" dia for vertical support 3" dia for bracing ¾" thk on non teak planks for stage top with hand railing for wooden steps etc., complete for temporary stage of size 5'0"x8'0"x13'0" for from Ground Level and 7' ht from base to top i.e. Total 20' ht including steps.	Each	14,600.00
1233	TBSC-Z.I-70	Providing Cutting of Chain link mesh of the garden with Power Saw Cutter - Hand Operated - for entry including all material hire charges with blade and labour charges for cutting the mesh and clearing away from the site etc complete.	Each	800.00
1234	TBSC-Z.I-71	Supplying and Laying of Stone Dust for Levelling the Ground at the Stage portion and Entrnace Gate of of Chief Minister including all material charges, transport to site and labour Charges for Spreading the Stone Dust at required places and levelling it for 3 Days for finished item of work.	Job	31,250.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1235	TBSC-Z.I-72	Supplying and Erection of Signages with acrylic sheet duly computerized letter cutting vinyl letter pasting including designing , proof check and pasteing on frames including labour charges for pasteing , making of holes and fixing of rivet with necessary stands etc. 6'-0"x6'-0"	Each	1,150.00
1236	TBSC-Z.I-73	Supplying and Erection of Signages with acrylic sheet duly computerized letter cutting vinyl letter pasting including designing , proof check and pasteing on frames including labour charges for pasteing , making of holes and fixing of rivet with necessary stands etc. 6'-0"x4'-0"	Each	940.00
1237	TBSC-Z.I-74	Supplying and Erection of Signages with acrylic sheet duly computerized letter cutting vinyl letter pasting including designing , proof check and pasteing on frames including labour charges for pasteing , making of holes and fixing of rivet with necessary stands etc. 2'-0"x1'-6"	Each	450.00
1238	TBSC-Z.I-75	Supplying and Erection of Signages with Venyl Stickers duly computerized letter cutting vinyl letter pasting with necessary stands etc. Arrow Venyl Stickers	Each	185.00
1239	TBSC-Z.I-76	Supply of Nuts and bolts of 1/2" x 1 1/2" dia of Good quality	kg	110.00
1240	TBSC-Z.I-77	Supply and fixing of 6.00m thick new polycarbonate sheet duly removing the damaged polycarbonate sheet from the existing dome duly fixing on existing Dome and replacing of new M.S. pipes for structure which are damaged including providing of new Alluminium flats of 50mm x 4.0mm on all the joints with self tapping screws with the help of Hydraulic Gun and applying G.E. silicon sealant for No leakage of Rain water including all operational, incidental , labour charges for Fixing in position ...etc, complete.	1 Sqm	3,498.00
1241	TBSC-Z.I-78	Erection of Departmental Rostrum of size 12'-0" x 8'-0" x 6'-10" hight with nuts and bolts etc complete.	Job	15,000.00
1242	TBSC-Z.I-79	Erection of Departmental Staircase with all components , nuts and bolts ...etc complete and removal of the same after the job is over including Transportation, loading with Divisional stores to the specified location and unloading erection in complete shape including c/c of all materail and labour charges...etc, complete.	Job	12,000.00
1243	TBSC-Z.I-80	Fixing and erection of commentators boxes	Each	500.00
1244	TBSC-Z.I-81	Fixing and removal of canopy over saluting base dias with all necessary fittings etc complete.	Each	5,000.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1245	TBSC-Z.I-82	Providing of Auto Cad Drawings print out for the seating arrangement plan of the event in various size...etc as required for the departmental use .A0 size	Each	180.00
1246	TBSC-Z.I-83	Providing of Auto Cad Drawings print out for the seating arrangement plan of the event in various size...etc as required for the departmental use .A1 size	Each	150.00
1247	TBSC-Z.I-84	Providing of Auto Cad Drawings print out for the seating arrangement plan of the event in various size...etc as required for the departmental use .A2 size	Each	130.00
1248	TBSC-Z.I-85	Providing of Auto Cad Drawings print out for the seating arrangement plan of the event in various size...etc as required for the departmental use .A3 size	Each	50.00
1249	TBSC-Z.I-86	Filling up Hole upto depth of 9" deep with Bituminium Concrete and consolidate it	Each	150.00
1250	TBSC-Z.I-87	Supply & Erection of Calcutta Water Proof Pandal with ceiling cloth including transportation and all labour charges for loading & unloading and erection and removal after the function is over. For 3.0Days	Each	15.00
1251	TBSC-Z.I-88	Transportaion of protocol material transportaion and labour charges etc complete.R&B Departmental store to site location	Job	2,000.00
1252	TBSC-Z.I-89	Supply and Fixing of Gange way passage with M.s. structure made of 1 1/2" x 1 1/2" Square hollow tubular Barricade of size 4'-0" x 8'-0" which is supported with vertical Hollow circular pipe of size 2 1/2" dia at spacing of 20'-0" centre to centre and top bracing over Structure using pipe of size 2 1/2" dia duly tying with Binding wire/rope/cloth including hire charges for material, transportation charges,including transportation and all labour charges for loading & unloading and erection and removal after the function is over...etc ., complete for finished item of work as per approved drawing .	1 RM	50.00
1253	TBSC-Z.I-90	Supply & placing of of high rise standing table Including all loading,unloading and transportation ..etc., complete and removing the same after functionis over.	Each	400.00
1254	TBSC-Z.I-91	Supply & erection of pipe Pandal with(Height of 18'-0") double decorative ceiling cloth new and good looking including erection of pole patties including erection of pole patties including transportation and all labour charges for loading , unloading and erection to and fro etc complete.	1 Sqm	118.00
1255	TBSC-Z.I-92	Hire charges for Providing of Dressing table for V.V.I.P including transportation , loading and unloading ...etc., for parade ground	Job	3,000.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1256	TBSC-Z.I-93	Hire charges for Providing of VVIP Mobile Toilets for V.V.I.P(Hon'ble Governor/ Chief Minister/ Hon'ble M.P 's) including transportation , Technical person engageing, Cleaning of the waste material) loading and unloading ...etc., for parade ground	Job	15,000.00
1257	TBSC-Z.I-94	Supplying and Erection of Signages with acrylic sheet duly computerized letter cutting vinyl letter pasting including designing , proof check and pasteing on frames including labour charges for pasteing , making of holes and fixing of rivet with necessary stands etc. 3'-0"x3'-0"	Each	600.00
1258	TBSC-Z.I-95	Supply and spraying of Fire Retardant coat towards passive Protection to Sustain up to 1000 Deg . C for 1.0 hour. This product can be used for all the materials such as cable, Steel, wood , cloth & concrete surface...etc., Make : SEAARA/ GABS/ Reliance over the main stage area and Green Room area .	Litre	2,400.00
1259	TBSC-Z.I-96	Hire charges for Supply and placing of M.S. Base plate of heavy structure to hold and with stand the weld mesh Jalli including c/c of all material , transportation , incidental operation , labour charges and its removal of the same after the function is over ,handling etc complete for finished item of work.	Each	400.00
1260	TBSC-Z.I-97	Supply of S.S. Drum(capacity 30 litres) Hand Wash basin along with collection unit	Each	1,000.00
1261	TBSC-Z.I-98	Supply and laying woolen (Kashmir) carpet new and good looking including loading, unloading and transport, spreading etc complete.	Each	250.00
1262	TBSC-Z.I-99	Supply and placing of Brass metal Jyothi Lamp and removing of the same after function is over including hire charges, transportation and incidental charges, operation charges ...etc. complete.	Each	2,500.00
1263	TBSC-Z.I-100	Supply and placing of plastic Trays	Each	200.00
1264	TBSC-Z.I-101	Supply and placing of High Quality smooth fibric white colour towel of Bombay Dyeing branded make including c/c of all material, operational, incidental charges....etc.,complete.0.760 mtrsx0.450mts	Each	400.00
1265	TBSC-Z.I-102	Supply and placing of High Quality smooth fibric white colour towel of Bombay Dyeing branded make including c/c of all material, operational, incidental charges....etc.,complete1.800 mtrs x0.90mts	Each	3,000.00
1266	TBSC-Z.I-103	Hire charges for 4th day to 7th day for the weld mesh jalli (25% over one day Rental Hire charges i.e Rs10/- per day-40% labour charges=Rs10-Rs4=Rs6 and 25% over Rs 6/- per day Hire charges = Rs 1.50/- per 4th day to 7th day Hire Charges)	1 Sqm	16.00

Sl. No	ITEM CODE	DESCRIPTION OF THE ITEM	UNIT	Scheduled Rate
1267	TBSC-Z.I-104	Hire charges for 8th day to 15th day for the weld mesh jalli (25% over one day Rental Hire charges i.e Rs10/- per day-40% labour charges=Rs10-Rs4=Rs6 and 25% over Rs 6/- per day Hire charges = Rs 1.50/- per 8th day to 15th day Hire Charges)	1 Sqm	16.00
1268	TBSC-Z.I-105	Hire charges for 16th day to 23th day for the weld mesh jalli (25% over one day Rental Hire charges i.e Rs10/- per day-40% labour charges=Rs10-Rs4=Rs6 and 25% over Rs 6/- per day Hire charges = Rs 1.50/- per 16th day to 23th day Hire Charges)	1 Sqm	16.00
1269	TBSC-Z.I-106	Hire charges for 24th day to 30th day for the weld mesh jalli (25% over one day Rental Hire charges i.e Rs10/- per day-40% labour charges=Rs10-Rs4=Rs6 and 25% over Rs 6/- per day Hire charges = Rs 1.50/- per 24th day to 30th day Hire Charges)	1 Sqm	16.00
1	All the items to be used on the works are of first quality & ISI and as approved by the Engineer-In-charge of the work.			
2	Supply Rates for all the materials are basic rates based on market rates/quoted rates/ derived rates, excluding Taxes.			
3	The applicable GST (works contract) shall be added at applicable rate in Part B of the estimates.			
4	SSR Rates for Building items are purely for the guidance of the officers in preparation of estimates vide para.113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in para.45 of APPWD code.			
	LEGEND	"TBSC" -A.I-01		
		"TBSC" -R.I-22		
		"TBSC" -S.III-14		
		TBS - Denotes Telangana Buildings SoR		
		A.I/ R.IV - Denotes the Section & Sub-section		
		01/22 - Denotes the serial number of the item		

SCAFFOLDING CHARGES

Providing rigid steel cup lock scaffolding system using steel pipes, adjustable Jack screw props, RHS spans, couplers, bracings and horizontal connecting members, supporting brackets, RHS span beams as per the approved scaffolding designs & plan and other accessories as per the IS Norms and stability calculations including hire charges for cup lock scaffolding pipes, RHS spans, runners, wooden members and cost and conveyance of all other consumable accessories, taxes etc complete for finished item of work

- A. Hire Charges for Centring Deck Sheets - 9 Ply - 19 mm thick Plywood conforming to IS:303 BWR Grade
- B. Hire Charges for Centring with MS Steel Plate - form work
- C. Hire Charges for Centring with Aluminium anodized sheets and sections conforming to IS: 11857 - 1986

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2025-26		Unit of Measurement
1	2	3		4		5		6
A. HIRE CHARGES FOR CENTERING & SCAFFOLDING - CUPLOCK + MARINE GRADE PLYWOOD								
A	FOOTINGS	Rs.	568.00	Rs.	889.00	Rs.	1457.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	125.00	Rs.	458.00	Rs.	583.00	per 1 cum
C	PEDESTALS	Rs.	645.00	Rs.	1413.00	Rs.	2058.00	per 1 cum
D	PLINTH BEAMS	Rs.	2736.00	Rs.	2141.00	Rs.	4877.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + Marine Grade Plywood shuttering								
E	LINTELS	Rs.	2323.00	Rs.	2273.00	Rs.	4596.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	459.00	Rs.	349.00	Rs.	808.00	per 1 sqm
G	COLUMNS	Rs.	699.00	Rs.	3192.00	Rs.	3891.00	per 1 cum
H	BEAMS	Rs.	4104.00	Rs.	2676.00	Rs.	6780.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	465.00	Rs.	303.00	Rs.	768.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	478.00	Rs.	312.00	Rs.	790.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	500.00	Rs.	326.00	Rs.	826.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	1690.00	Rs.	1102.00	Rs.	2792.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1185.00	Rs.	773.00	Rs.	1958.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	4666.00	Rs.	3043.00	Rs.	7709.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	4731.00	Rs.	3086.00	Rs.	7817.00	per 1 cum
P	DOME SLABS	Rs.	7545.00	Rs.	4921.00	Rs.	12466.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	575.00	Rs.	375.00	Rs.	950.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	957.00	Rs.	711.00	Rs.	1668.00	per 1 sqm
B. HIRE CHARGES FOR CENTERING & SCAFFOLDING - CUPLOCK + MS PLATES								
A	FOOTINGS	Rs.	550.00	Rs.	889.00	Rs.	1439.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	122.00	Rs.	458.00	Rs.	580.00	per 1 cum
C	PEDESTALS	Rs.	625.00	Rs.	1413.00	Rs.	2038.00	per 1 cum
D	PLINTH BEAMS	Rs.	2653.00	Rs.	2141.00	Rs.	4794.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + MS Plate shuttering								
E	LINTELS	Rs.	2253.00	Rs.	2273.00	Rs.	4526.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	445.00	Rs.	349.00	Rs.	794.00	per 1 sqm
G	COLUMNS	Rs.	678.00	Rs.	3192.00	Rs.	3870.00	per 1 cum
H	BEAMS	Rs.	3980.00	Rs.	2676.00	Rs.	6656.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	451.00	Rs.	303.00	Rs.	754.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	464.00	Rs.	312.00	Rs.	776.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	485.00	Rs.	326.00	Rs.	811.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib	Rs.	1639.00	Rs.	1102.00	Rs.	2741.00	per 1 sqm

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2025-26		Unit of Measurement
1	2	3		4		5		6
	Beams with Slabs)							
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1149.00	Rs.	773.00	Rs.	1922.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	4524.00	Rs.	3043.00	Rs.	7567.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	4588.00	Rs.	3086.00	Rs.	7674.00	per 1 cum
P	DOME SLABS	Rs.	7317.00	Rs.	4921.00	Rs.	12238.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	558.00	Rs.	375.00	Rs.	933.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	928.00	Rs.	711.00	Rs.	1639.00	per 1 sqm
C. HIRE CHARGES FOR CENTERING & SCAFFOLDING - CUPLOCK + ALUMINIUM PLATES								
A	FOOTINGS	Rs.	774.00	Rs.	889.00	Rs.	1663.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	171.00	Rs.	458.00	Rs.	629.00	per 1 cum
C	PEDESTALS	Rs.	879.00	Rs.	1413.00	Rs.	2292.00	per 1 cum
D	PLINTH BEAMS	Rs.	3731.00	Rs.	2141.00	Rs.	5872.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M - MS Cup lock System + Aluminium Plate shuttering								
E	LINTELS	Rs.	3169.00	Rs.	2273.00	Rs.	5442.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	626.00	Rs.	349.00	Rs.	975.00	per 1 sqm
G	COLUMNS	Rs.	954.00	Rs.	3192.00	Rs.	4146.00	per 1 cum
H	BEAMS	Rs.	5597.00	Rs.	2676.00	Rs.	8273.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	635.00	Rs.	303.00	Rs.	938.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	652.00	Rs.	312.00	Rs.	964.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	682.00	Rs.	326.00	Rs.	1008.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	2305.00	Rs.	1102.00	Rs.	3407.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	1616.00	Rs.	773.00	Rs.	2389.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	6363.00	Rs.	3043.00	Rs.	9406.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	6453.00	Rs.	3086.00	Rs.	9539.00	per 1 cum
P	DOME SLABS	Rs.	10290.00	Rs.	4921.00	Rs.	15211.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	784.00	Rs.	375.00	Rs.	1159.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	1305.00	Rs.	711.00	Rs.	2016.00	per 1 sqm
Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, centring for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item								
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Pipe Scaffolds for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)								
A	1st - Floor	Rs.	14.05	Rs.	110.86	Rs.	124.91	per 1 sqm
B	2nd - Floor	Rs.	14.05	Rs.	159.27	Rs.	173.31	per 1 sqm
C	3rd - Floor	Rs.	14.05	Rs.	207.68	Rs.	221.72	per 1 sqm
D	4th - Floor	Rs.	14.05	Rs.	256.08	Rs.	270.13	per 1 sqm
E	5th - Floor	Rs.	14.05	Rs.	304.49	Rs.	318.54	per 1 sqm
F	6th - Floor	Rs.	14.05	Rs.	352.90	Rs.	366.94	per 1 sqm
G	7th - Floor	Rs.	14.05	Rs.	401.30	Rs.	415.35	per 1 sqm
H	8th - Floor	Rs.	14.05	Rs.	449.71	Rs.	463.76	per 1 sqm
I	9th - Floor	Rs.	14.05	Rs.	498.12	Rs.	512.17	per 1 sqm
J	10th - Floor	Rs.	14.05	Rs.	546.53	Rs.	560.57	per 1 sqm
K	11th - Floor	Rs.	14.05	Rs.	594.93	Rs.	608.98	per 1 sqm
L	12th - Floor	Rs.	14.05	Rs.	643.34	Rs.	657.39	per 1 sqm
M	13th - Floor	Rs.	14.05	Rs.	691.75	Rs.	705.79	per 1 sqm
N	14th - Floor	Rs.	14.05	Rs.	740.16	Rs.	754.20	per 1 sqm

Sl	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges for 2025-26		Unit of Measurement
1	2	3		4		5		6
O	15th - Floor	Rs.	14.05	Rs.	788.56	Rs.	802.61	per 1 sqm
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Pipe Scaffolds., for PLASTERING/ PAINTING/ TEXTURE to WALLS - 1 sqm								
A	1st - Floor	Rs.	1.40	Rs.	11.09	Rs.	12.49	per 1 sqm
B	2nd - Floor	Rs.	1.40	Rs.	15.93	Rs.	17.33	per 1 sqm
C	3rd - Floor	Rs.	1.40	Rs.	20.77	Rs.	22.17	per 1 sqm
D	4th - Floor	Rs.	1.40	Rs.	25.61	Rs.	27.01	per 1 sqm
E	5th - Floor	Rs.	1.40	Rs.	30.45	Rs.	31.85	per 1 sqm
F	6th - Floor	Rs.	1.40	Rs.	35.29	Rs.	36.69	per 1 sqm
G	7th - Floor	Rs.	1.40	Rs.	40.13	Rs.	41.54	per 1 sqm
H	8th - Floor	Rs.	1.40	Rs.	44.97	Rs.	46.38	per 1 sqm
I	9th - Floor	Rs.	1.40	Rs.	49.81	Rs.	51.22	per 1 sqm
J	10th - Floor	Rs.	1.40	Rs.	54.65	Rs.	56.06	per 1 sqm
K	11th - Floor	Rs.	1.40	Rs.	59.49	Rs.	60.90	per 1 sqm
L	12th - Floor	Rs.	1.40	Rs.	64.33	Rs.	65.74	per 1 sqm
M	13th - Floor	Rs.	1.40	Rs.	69.17	Rs.	70.58	per 1 sqm
N	14th - Floor	Rs.	1.40	Rs.	74.02	Rs.	75.42	per 1 sqm
O	15th - Floor	Rs.	1.40	Rs.	78.86	Rs.	80.26	per 1 sqm
HIRE CHARGES FOR STAGE SCAFFOLDING - up to 3.66 M using MS Jack Prop Cup lock Scaffolds, Staging Boards, for CEILING PLASTERING - 1 sqm								
A	1st - Floor	Rs.	4.38	Rs.	23.19	Rs.	27.57	per 1 sqm
B	2nd - Floor	Rs.	4.38	Rs.	32.60	Rs.	36.98	per 1 sqm
C	3rd - Floor	Rs.	4.38	Rs.	42.00	Rs.	46.38	per 1 sqm
D	4th - Floor	Rs.	4.38	Rs.	51.41	Rs.	55.79	per 1 sqm
E	5th - Floor	Rs.	4.38	Rs.	60.81	Rs.	65.19	per 1 sqm
F	6th - Floor	Rs.	4.38	Rs.	70.22	Rs.	74.60	per 1 sqm
G	7th - Floor	Rs.	4.38	Rs.	79.62	Rs.	84.00	per 1 sqm
H	8th - Floor	Rs.	4.38	Rs.	89.03	Rs.	93.41	per 1 sqm
I	9th - Floor	Rs.	4.38	Rs.	98.43	Rs.	102.81	per 1 sqm
J	10th - Floor	Rs.	4.38	Rs.	107.84	Rs.	112.22	per 1 sqm
K	11th - Floor	Rs.	4.38	Rs.	117.24	Rs.	121.62	per 1 sqm
L	12th - Floor	Rs.	4.38	Rs.	126.64	Rs.	131.03	per 1 sqm
M	13th - Floor	Rs.	4.38	Rs.	136.05	Rs.	140.43	per 1 sqm
N	14th - Floor	Rs.	4.38	Rs.	145.45	Rs.	149.84	per 1 sqm
O	15th - Floor	Rs.	4.38	Rs.	154.86	Rs.	159.24	per 1 sqm
Note: - Centering & scaffolding charges for steel scaffolding with pipes, jack props, centring for unsupported heights of every 610 mm height above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item								

**A. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING PL
YWOOD SHUTTER for unsupported height 3.66 M**

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIR CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2323.00	459.00	699.00	4104.00	465.00	478.00	500.00	1690.00	1185.00	4666.00	4731.00	7545.00	575.00	957.00
Labour Charges for 1st Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
Total Hire Charges (H+L)	T	4596.00	808.00	3891.00	6780.00	768.00	790.00	826.00	2792.00	1958.00	7709.00	7817.00	12466.00	950.00	1668.00
1st - Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
2nd - Floor	L	2500.00	384.00	3511.00	2944.00	333.00	343.00	359.00	1212.00	850.00	3347.00	3395.00	5413.00	413.00	782.00
3rd - Floor	L	2728.00	419.00	3830.00	3211.00	364.00	374.00	391.00	1322.00	928.00	3652.00	3703.00	5905.00	450.00	853.00
4th - Floor	L	2955.00	454.00	4150.00	3479.00	394.00	406.00	424.00	1433.00	1005.00	3956.00	4012.00	6397.00	488.00	924.00
5th - Floor	L	3182.00	489.00	4469.00	3746.00	424.00	437.00	456.00	1543.00	1082.00	4260.00	4320.00	6889.00	525.00	995.00
6th - Floor	L	3410.00	524.00	4788.00	4014.00	455.00	468.00	489.00	1653.00	1160.00	4565.00	4629.00	7382.00	563.00	1067.00
7th - Floor	L	3637.00	558.00	5107.00	4282.00	485.00	499.00	522.00	1763.00	1237.00	4869.00	4938.00	7874.00	600.00	1138.00
8th - Floor	L	3864.00	593.00	5426.00	4549.00	515.00	530.00	554.00	1873.00	1314.00	5173.00	5246.00	8366.00	638.00	1209.00
9th - Floor	L	4091.00	628.00	5746.00	4817.00	545.00	562.00	587.00	1984.00	1391.00	5477.00	5555.00	8858.00	675.00	1280.00
10th - Floor	L	4319.00	663.00	6065.00	5084.00	576.00	593.00	619.00	2094.00	1469.00	5782.00	5863.00	9350.00	713.00	1351.00
11th - Floor	L	4546.00	698.00	6384.00	5352.00	606.00	624.00	652.00	2204.00	1546.00	6086.00	6172.00	9842.00	750.00	1422.00
12th - Floor	L	4773.00	733.00	6703.00	5620.00	636.00	655.00	685.00	2314.00	1623.00	6390.00	6481.00	10334.00	788.00	1493.00
13th - Floor	L	5001.00	768.00	7022.00	5887.00	667.00	686.00	717.00	2424.00	1701.00	6695.00	6789.00	10826.00	825.00	1564.00
14th - Floor	L	5228.00	803.00	7342.00	6155.00	697.00	718.00	750.00	2535.00	1778.00	6999.00	7098.00	11318.00	863.00	1635.00
15th - Floor	L	5455.00	838.00	7661.00	6422.00	727.00	749.00	782.00	2645.00	1855.00	7303.00	7406.00	11810.00	900.00	1706.00

Note: Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

B. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING MS STEEL PLATE SHUTTER for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOMES SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	2253.00	445.00	678.00	3980.00	451.00	464.00	485.00	1639.00	1149.00	4524.00	4588.00	7317.00	558.00	928.00
Labour Charges for 1st Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
Total Hire Charges (H+L)	T	4526.00	794.00	3870.00	6656.00	754.00	776.00	811.00	2741.00	1922.00	7567.00	7674.00	12238.00	933.00	1639.00
1st - Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
2nd - Floor	L	2500.00	384.00	3511.00	2944.00	333.00	343.00	359.00	1212.00	850.00	3347.00	3395.00	5413.00	413.00	782.00
3rd - Floor	L	2728.00	419.00	3830.00	3211.00	364.00	374.00	391.00	1322.00	928.00	3652.00	3703.00	5905.00	450.00	853.00
4th - Floor	L	2955.00	454.00	4150.00	3479.00	394.00	406.00	424.00	1433.00	1005.00	3956.00	4012.00	6397.00	488.00	924.00
5th - Floor	L	3182.00	489.00	4469.00	3746.00	424.00	437.00	456.00	1543.00	1082.00	4260.00	4320.00	6889.00	525.00	995.00
6th - Floor	L	3410.00	524.00	4788.00	4014.00	455.00	468.00	489.00	1653.00	1160.00	4565.00	4629.00	7382.00	563.00	1067.00
7th - Floor	L	3637.00	558.00	5107.00	4282.00	485.00	499.00	522.00	1763.00	1237.00	4869.00	4938.00	7874.00	600.00	1138.00
8th - Floor	L	3864.00	593.00	5426.00	4549.00	515.00	530.00	554.00	1873.00	1314.00	5173.00	5246.00	8366.00	638.00	1209.00
9th - Floor	L	4091.00	628.00	5746.00	4817.00	545.00	562.00	587.00	1984.00	1391.00	5477.00	5555.00	8858.00	675.00	1280.00
10th - Floor	L	4319.00	663.00	6065.00	5084.00	576.00	593.00	619.00	2094.00	1469.00	5782.00	5863.00	9350.00	713.00	1351.00
11th - Floor	L	4546.00	698.00	6384.00	5352.00	606.00	624.00	652.00	2204.00	1546.00	6086.00	6172.00	9842.00	750.00	1422.00
12th - Floor	L	4773.00	733.00	6703.00	5620.00	636.00	655.00	685.00	2314.00	1623.00	6390.00	6481.00	10334.00	788.00	1493.00
13th - Floor	L	5001.00	768.00	7022.00	5887.00	667.00	686.00	717.00	2424.00	1701.00	6695.00	6789.00	10826.00	825.00	1564.00
14th - Floor	L	5228.00	803.00	7342.00	6155.00	697.00	718.00	750.00	2535.00	1778.00	6999.00	7098.00	11318.00	863.00	1635.00
15th - Floor	L	5455.00	838.00	7661.00	6422.00	727.00	749.00	782.00	2645.00	1855.00	7303.00	7406.00	11810.00	900.00	1706.00

Note: Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

C. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for CUPLOCK SCAFFOLD SYSTEM USING ALUMINIUM PLATE SHUTTER for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUN- SHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIR- CASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	3169.00	626.00	954.00	5597.00	635.00	652.00	682.00	2305.00	1616.00	6363.00	6453.00	10290.00	784.00	1305.00
Labour Charges for 1st Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
Total Hire Charges (H+L)	T	5442.00	975.00	4146.00	8273.00	938.00	964.00	1008.00	3407.00	2389.00	9406.00	9539.00	15211.00	1159.00	2016.00
1st - Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
2nd - Floor	L	2500.00	384.00	3511.00	2944.00	333.00	343.00	359.00	1212.00	850.00	3347.00	3395.00	5413.00	413.00	782.00
3rd - Floor	L	2728.00	419.00	3830.00	3211.00	364.00	374.00	391.00	1322.00	928.00	3652.00	3703.00	5905.00	450.00	853.00
4th - Floor	L	2955.00	454.00	4150.00	3479.00	394.00	406.00	424.00	1433.00	1005.00	3956.00	4012.00	6397.00	488.00	924.00
5th - Floor	L	3182.00	489.00	4469.00	3746.00	424.00	437.00	456.00	1543.00	1082.00	4260.00	4320.00	6889.00	525.00	995.00
6th - Floor	L	3410.00	524.00	4788.00	4014.00	455.00	468.00	489.00	1653.00	1160.00	4565.00	4629.00	7382.00	563.00	1067.00
7th - Floor	L	3637.00	558.00	5107.00	4282.00	485.00	499.00	522.00	1763.00	1237.00	4869.00	4938.00	7874.00	600.00	1138.00
8th - Floor	L	3864.00	593.00	5426.00	4549.00	515.00	530.00	554.00	1873.00	1314.00	5173.00	5246.00	8366.00	638.00	1209.00
9th - Floor	L	4091.00	628.00	5746.00	4817.00	545.00	562.00	587.00	1984.00	1391.00	5477.00	5555.00	8858.00	675.00	1280.00
10th - Floor	L	4319.00	663.00	6065.00	5084.00	576.00	593.00	619.00	2094.00	1469.00	5782.00	5863.00	9350.00	713.00	1351.00
11th - Floor	L	4546.00	698.00	6384.00	5352.00	606.00	624.00	652.00	2204.00	1546.00	6086.00	6172.00	9842.00	750.00	1422.00
12th - Floor	L	4773.00	733.00	6703.00	5620.00	636.00	655.00	685.00	2314.00	1623.00	6390.00	6481.00	10334.00	788.00	1493.00
13th - Floor	L	5001.00	768.00	7022.00	5887.00	667.00	686.00	717.00	2424.00	1701.00	6695.00	6789.00	10826.00	825.00	1564.00
14th - Floor	L	5228.00	803.00	7342.00	6155.00	697.00	718.00	750.00	2535.00	1778.00	6999.00	7098.00	11318.00	863.00	1635.00
15th - Floor	L	5455.00	838.00	7661.00	6422.00	727.00	749.00	782.00	2645.00	1855.00	7303.00	7406.00	11810.00	900.00	1706.00

Note: Centering & scaffolding charges for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

SI	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges		Unit of Measurement
1	2	3		4		5		6
D. HIRE CHARGES FOR CENTERING & SCAFFOLDING								
A	FOOTINGS	Rs.	350.00	Rs.	889.00	Rs.	1239.00	per 1 cum
B	BED BLOCKS, BANDS	Rs.	77.00	Rs.	458.00	Rs.	535.00	per 1 cum
C	PEDESTALS	Rs.	398.00	Rs.	1413.00	Rs.	1811.00	per 1 cum
D	PLINTH BEAMS	Rs.	1688.00	Rs.	2141.00	Rs.	3829.00	per 1 cum
HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M Steel scaffolding pipes, jack Props, Wallers, Foot plates, brackets, steel Centering Plates, etc.,								
E	LINTELS	Rs.	1433.00	Rs.	2273.00	Rs.	3706.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	283.00	Rs.	349.00	Rs.	632.00	per 1 sqm
G	COLUMNS	Rs.	431.00	Rs.	3192.00	Rs.	3623.00	per 1 cum
H	BEAMS	Rs.	2531.00	Rs.	2676.00	Rs.	5207.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	287.00	Rs.	303.00	Rs.	590.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	295.00	Rs.	312.00	Rs.	607.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	309.00	Rs.	326.00	Rs.	635.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	1042.00	Rs.	1102.00	Rs.	2144.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	731.00	Rs.	773.00	Rs.	1504.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	2878.00	Rs.	3043.00	Rs.	5921.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	2919.00	Rs.	3086.00	Rs.	6005.00	per 1 cum
P	DOME SLABS	Rs.	4654.00	Rs.	4921.00	Rs.	9575.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	355.00	Rs.	375.00	Rs.	730.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	Rs.	590.00	Rs.	711.00	Rs.	1301.00	per 1 sqm
E. HIRE CHARGES FOR CENTERING & SCAFFOLDING - Unsupported Height up to 3.66 M Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc.,								
E	LINTELS	Rs.	949.00	Rs.	1727.00	Rs.	2676.00	per 1 cum
F	CHAJJAS - SUNSHADES	Rs.	188.00	Rs.	265.00	Rs.	453.00	per 1 sqm
G	COLUMNS	Rs.	286.00	Rs.	2425.00	Rs.	2711.00	per 1 cum
H	BEAMS	Rs.	1677.00	Rs.	2034.00	Rs.	3711.00	per 1 cum
I	SLABS - Up to 150 mm thick	Rs.	190.00	Rs.	231.00	Rs.	421.00	per 1 sqm
J	SLABS - above 150 mm - Up to 300 mm thick	Rs.	195.00	Rs.	237.00	Rs.	432.00	per 1 sqm
K	SLABS - above 300 mm thick	Rs.	204.00	Rs.	248.00	Rs.	452.00	per 1 sqm
L	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	Rs.	690.00	Rs.	837.00	Rs.	1527.00	per 1 sqm
M	PERGOLA SLABS (Only Rib Beams)	Rs.	484.00	Rs.	587.00	Rs.	1071.00	per 1 sqm
N	ARCH BEAMS - up to 1.5 M Span	Rs.	1906.00	Rs.	2312.00	Rs.	4218.00	per 1 cum
O	ARCH BEAMS - above 1.5 M Span	Rs.	1933.00	Rs.	2345.00	Rs.	4278.00	per 1 cum
P	DOME SLABS	Rs.	3083.00	Rs.	3739.00	Rs.	6822.00	per 1 cum
Q	HELICAL STAIRCASES	Rs.	235.00	Rs.	285.00	Rs.	520.00	per 1 sqm
R	SHEAR WALLS, RCC WALLS, WATER TANK WALLS	DELETED						
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for BRICK MASONRY/ STONE MASONRY - 1 sqm (Wall Area)								
A	1st - Floor	Rs.	12.56	Rs.	109.07	Rs.	121.63	per 1 sqm
B	2nd - Floor	Rs.	12.56	Rs.	157.32	Rs.	169.88	per 1 sqm

SI	NAME OF THE STRUCTURAL MEMBER	Material Hire charges		Labour charges		Centring Charges		Unit of Measurement
C	3rd - Floor	Rs.	12.56	Rs.	205.57	Rs.	218.13	per 1 sqm
D	4th - Floor	Rs.	12.56	Rs.	253.82	Rs.	266.39	per 1 sqm
E	5th - Floor	Rs.	12.56	Rs.	302.08	Rs.	314.64	per 1 sqm
F	6th - Floor	Rs.	12.56	Rs.	350.33	Rs.	362.89	per 1 sqm
G	7th - Floor	Rs.	12.56	Rs.	398.58	Rs.	411.14	per 1 sqm
H	8th - Floor	Rs.	12.56	Rs.	446.83	Rs.	459.40	per 1 sqm
I	9th - Floor	Rs.	12.56	Rs.	495.08	Rs.	507.65	per 1 sqm
J	10th - Floor	Rs.	12.56	Rs.	543.34	Rs.	555.90	per 1 sqm
K	11th - Floor	Rs.	12.56	Rs.	591.59	Rs.	604.15	per 1 sqm
L	12th - Floor	Rs.	12.56	Rs.	639.84	Rs.	652.40	per 1 sqm
M	13th - Floor	Rs.	12.56	Rs.	688.09	Rs.	700.66	per 1 sqm
N	14th - Floor	Rs.	12.56	Rs.	736.35	Rs.	748.91	per 1 sqm
O	15th - Floor	Rs.	12.56	Rs.	784.60	Rs.	797.16	per 1 sqm
HIRE CHARGES FOR ACCESS SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for PLASTERING to WALLS - 1 sqm								
A	1st - Floor	Rs.	1.26	Rs.	10.91	Rs.	12.16	per 1 sqm
B	2nd - Floor	Rs.	1.26	Rs.	15.73	Rs.	16.99	per 1 sqm
C	3rd - Floor	Rs.	1.26	Rs.	20.56	Rs.	21.81	per 1 sqm
D	4th - Floor	Rs.	1.26	Rs.	25.38	Rs.	26.64	per 1 sqm
E	5th - Floor	Rs.	1.26	Rs.	30.21	Rs.	31.46	per 1 sqm
F	6th - Floor	Rs.	1.26	Rs.	35.03	Rs.	36.29	per 1 sqm
G	7th - Floor	Rs.	1.26	Rs.	39.86	Rs.	41.11	per 1 sqm
H	8th - Floor	Rs.	1.26	Rs.	44.68	Rs.	45.94	per 1 sqm
I	9th - Floor	Rs.	1.26	Rs.	49.51	Rs.	50.76	per 1 sqm
J	10th - Floor	Rs.	1.26	Rs.	54.33	Rs.	55.59	per 1 sqm
K	11th - Floor	Rs.	1.26	Rs.	59.16	Rs.	60.42	per 1 sqm
L	12th - Floor	Rs.	1.26	Rs.	63.98	Rs.	65.24	per 1 sqm
M	13th - Floor	Rs.	1.26	Rs.	68.81	Rs.	70.07	per 1 sqm
N	14th - Floor	Rs.	1.26	Rs.	73.63	Rs.	74.89	per 1 sqm
O	15th - Floor	Rs.	1.26	Rs.	78.46	Rs.	79.72	per 1 sqm
HIRE CHARGES FOR STAGE SCAFFOLDING - up to 3.66 M using Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates etc., for CEILING PLASTERING - 1 sqm								
A	1st - Floor	Rs.	2.98	Rs.	21.85	Rs.	24.84	per 1 sqm
B	2nd - Floor	Rs.	2.98	Rs.	31.29	Rs.	34.27	per 1 sqm
C	3rd - Floor	Rs.	2.98	Rs.	40.72	Rs.	43.71	per 1 sqm
D	4th - Floor	Rs.	2.98	Rs.	50.16	Rs.	53.14	per 1 sqm
E	5th - Floor	Rs.	2.98	Rs.	59.59	Rs.	62.58	per 1 sqm
F	6th - Floor	Rs.	2.98	Rs.	69.03	Rs.	72.01	per 1 sqm
G	7th - Floor	Rs.	2.98	Rs.	78.46	Rs.	81.45	per 1 sqm
H	8th - Floor	Rs.	2.98	Rs.	87.90	Rs.	90.88	per 1 sqm
I	9th - Floor	Rs.	2.98	Rs.	97.33	Rs.	100.32	per 1 sqm
J	10th - Floor	Rs.	2.98	Rs.	106.77	Rs.	109.75	per 1 sqm
K	11th - Floor	Rs.	2.98	Rs.	116.20	Rs.	119.18	per 1 sqm
L	12th - Floor	Rs.	2.98	Rs.	125.63	Rs.	128.62	per 1 sqm
M	13th - Floor	Rs.	2.98	Rs.	135.07	Rs.	138.05	per 1 sqm
N	14th - Floor	Rs.	2.98	Rs.	144.50	Rs.	147.49	per 1 sqm
O	15th - Floor	Rs.	2.98	Rs.	153.94	Rs.	156.92	per 1 sqm

Note: It is recommended not to adopt centering and scaffolding rates of Casuarinas Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates for 3rd and above floors for stage scaffold, access scaffold and regular centering and shuttering items due to safety concerns.

For 3rd and upper floors, it is recommended to adopt CUP LOCK SCAFFOLD SYSTEM for stage scaffold, access scaffold and regular centering and shuttering items as appended in above sections.

D.CENTERING & SCAFFOLDING CHARGES-FLOOR WISE RATES for Steel scaffolding pipes, jack Props, Steel Centering Plates, etc., for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOME SLABS	HELICAL STAIRCASES	SHEAR WALLS, RCC WALLS, WATER TANK WALLS
Material Hire for any Floor	H	1433.00	283.00	431.00	2531.00	287.00	295.00	309.00	1042.00	731.00	2878.00	2919.00	4654.00	355.00	590.00
Labour Charges for 1st Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
Total Hire Charges (H+L)	T	3706.00	632.00	3623.00	5207.00	590.00	607.00	635.00	2144.00	1504.00	5921.00	6005.00	9575.00	730.00	1301.00
1st - Floor	L	2273.00	349.00	3192.00	2676.00	303.00	312.00	326.00	1102.00	773.00	3043.00	3086.00	4921.00	375.00	711.00
2nd - Floor	L	2500.00	384.00	3511.00	2944.00	333.00	343.00	359.00	1212.00	850.00	3347.00	3395.00	5413.00	413.00	782.00
3rd - Floor	L	2728.00	419.00	3830.00	3211.00	364.00	374.00	391.00	1322.00	928.00	3652.00	3703.00	5905.00	450.00	853.00
4th - Floor	L	2955.00	454.00	4150.00	3479.00	394.00	406.00	424.00	1433.00	1005.00	3956.00	4012.00	6397.00	488.00	924.00
5th - Floor	L	3182.00	489.00	4469.00	3746.00	424.00	437.00	456.00	1543.00	1082.00	4260.00	4320.00	6889.00	525.00	995.00
6th - Floor	L	3410.00	524.00	4788.00	4014.00	455.00	468.00	489.00	1653.00	1160.00	4565.00	4629.00	7382.00	563.00	1067.00
7th - Floor	L	3637.00	558.00	5107.00	4282.00	485.00	499.00	522.00	1763.00	1237.00	4869.00	4938.00	7874.00	600.00	1138.00
8th - Floor	L	3864.00	593.00	5426.00	4549.00	515.00	530.00	554.00	1873.00	1314.00	5173.00	5246.00	8366.00	638.00	1209.00
9th - Floor	L	4091.00	628.00	5746.00	4817.00	545.00	562.00	587.00	1984.00	1391.00	5477.00	5555.00	8858.00	675.00	1280.00
10th - Floor	L	4319.00	663.00	6065.00	5084.00	576.00	593.00	619.00	2094.00	1469.00	5782.00	5863.00	9350.00	713.00	1351.00
11th - Floor	L	4546.00	698.00	6384.00	5352.00	606.00	624.00	652.00	2204.00	1546.00	6086.00	6172.00	9842.00	750.00	1422.00
12th - Floor	L	4773.00	733.00	6703.00	5620.00	636.00	655.00	685.00	2314.00	1623.00	6390.00	6481.00	10334.00	788.00	1493.00
13th - Floor	L	5001.00	768.00	7022.00	5887.00	667.00	686.00	717.00	2424.00	1701.00	6695.00	6789.00	10826.00	825.00	1564.00
14th - Floor	L	5228.00	803.00	7342.00	6155.00	697.00	718.00	750.00	2535.00	1778.00	6999.00	7098.00	11318.00	863.00	1635.00
15th - Floor	L	5455.00	838.00	7661.00	6422.00	727.00	749.00	782.00	2645.00	1855.00	7303.00	7406.00	11810.00	900.00	1706.00

Note: Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item

E. CENTERING & SCAFFOLDING CHARGES- FLOOR WISE RATES for Casurina Ballies, Bamboos, Wooden Reapers, Runners, Wood Posts, Wall Plates, Steel Centring Plates etc., for unsupported height 3.66 M

FLOOR		LINTELS	CHAJJAS - SUNSHADES	COLUMNS	BEAMS	SLABS - Up to 150 mm thick	SLABS - above 150 mm - Up to 300 mm thick	SLABS - above 300 mm thick	WAFFLE - (GRID) SLABS (Rib Beams with Slabs)	PERGOLA SLABS (Only Rib Beams)	ARCH BEAMS - up to 1.5 M Span	ARCH BEAMS - above 1.5 M Span	DOMES SLABS	HELICAL STAIRCASES
Material Hire for any Floor	H	949.00	188.00	286.00	1677.00	190.00	195.00	204.00	690.00	484.00	1906.00	1933.00	3083.00	235.00
Labour Charges for 1st Floor	L	1727.00	265.00	2425.00	2034.00	231.00	237.00	248.00	837.00	587.00	2312.00	2345.00	3739.00	285.00
Total Hire Charges (H+L)	T	2676.00	453.00	2711.00	3711.00	421.00	432.00	452.00	1527.00	1071.00	4218.00	4278.00	6822.00	520.00
1st - Floor	L	1727.00	265.00	2425.00	2034.00	231.00	237.00	248.00	837.00	587.00	2312.00	2345.00	3739.00	285.00
2nd - Floor	L	1900.00	292.00	2668.00	2237.00	254.00	261.00	273.00	921.00	646.00	2543.00	2580.00	4113.00	314.00
3rd - Floor	L	2072.00	318.00	2910.00	2441.00	277.00	284.00	298.00	1004.00	704.00	2774.00	2814.00	4487.00	342.00
4th - Floor	L	2245.00	345.00	3153.00	2644.00	300.00	308.00	322.00	1088.00	763.00	3006.00	3049.00	4861.00	371.00
5th - Floor	L	2418.00	371.00	3395.00	2848.00	323.00	332.00	347.00	1172.00	822.00	3237.00	3283.00	5235.00	399.00
6th - Floor	L	2591.00	398.00	3638.00	3051.00	347.00	356.00	372.00	1256.00	881.00	3468.00	3518.00	5609.00	428.00
7th - Floor	L	2763.00	424.00	3880.00	3254.00	370.00	379.00	397.00	1339.00	939.00	3699.00	3752.00	5982.00	456.00
8th - Floor	L	2936.00	451.00	4123.00	3458.00	393.00	403.00	422.00	1423.00	998.00	3930.00	3987.00	6356.00	485.00
9th - Floor	L	3109.00	477.00	4365.00	3661.00	416.00	427.00	446.00	1507.00	1057.00	4162.00	4221.00	6730.00	513.00
10th - Floor	L	3281.00	504.00	4608.00	3865.00	439.00	450.00	471.00	1590.00	1115.00	4393.00	4456.00	7104.00	542.00
11th - Floor	L	3454.00	530.00	4850.00	4068.00	462.00	474.00	496.00	1674.00	1174.00	4624.00	4690.00	7478.00	570.00
12th - Floor	L	3627.00	557.00	5093.00	4271.00	485.00	498.00	521.00	1758.00	1233.00	4855.00	4925.00	7852.00	599.00
13th - Floor	L	3799.00	583.00	5335.00	4475.00	508.00	521.00	546.00	1841.00	1291.00	5086.00	5159.00	8226.00	627.00
14th - Floor	L	3972.00	610.00	5578.00	4678.00	531.00	545.00	570.00	1925.00	1350.00	5318.00	5394.00	8600.00	656.00
15th - Floor	L	4145.00	636.00	5820.00	4882.00	554.00	569.00	595.00	2009.00	1409.00	5549.00	5628.00	8974.00	684.00

Note: Centering & scaffolding charges for steel scaffolding with pipes, jack props, steel centring plates for unsupported heights of every 610 mm height or part thereof over and above 3.66 M may be allowed at 16.666% more than the basic material hire charges and relevant labour charges of the applicable floor and item.

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Ordinary Portland cement (43/53 grade)
		ACC, Ultratech, Vikram, Shree, Ambuja, Jaypee , Century, Ramco, Bharathi, India, J.K, Birla, Lafarge ,Jaypeerewa, Nagarjuna, Penna, Maha, Sagar, Dalmia, Bangur, JSW, Suvarna Super
A	SECTION	BRICKS & BUILDING BLOCKS
III	SUB-SECTION	AUTOCLAVED CONCRETE BLOCKS - Aerocon, Siporex, Nucon, NCL Aerated Blocks, VSA Bricks,Bilt,HIL,JK, , Gouthami Eco Lite
C	SECTION	WALL & FLOOR TILES
		(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)
I	SUB-SECTION	NON-PORCELAIN CERAMIC FLOOR TILES - Somany, Johnson, Naveen Ceramics, Kajaria, Nitco, Sphinx, Orient Bell, AGL, Hindware, Cera, Varmora, Vitero, Ambani, SUNHEART CERAMIK, Bandhan, Kerrogres by KAJARIA, Regency Tiles,, RAK, NITCO, Anjani Tek,Oasis,Nexion
II	SUB-SECTION	PORCELAIN VITRIFIED FLOOR TILES - Johnson, JohnsonMarbonite, JohnsonEndura, Johnson GPS, Naveen Ceramics, Kajaria, Nitco, Orient Bell, Hindware, AGL, RicasilCermaics Exxaro, Cera, Varmora, VITERO, Ambani, SUNHEART CERAMIK, Bandhan, Kerrogres by KAJARIA, OASIS, Regency Tiles, Nitco, Somany and RAK, Anjani Tek, Oasis, Naveen ,Nexion
III	SUB-SECTION	CERAMIC WALL TILES - Somany, Johnson, Kajaria, Sphinx, Orient Bell, AGL, Hindware, RicasilCermaics Exxaro, Cera, Varmora, Vitero, Ambani, SUNHEART CERAMIK, Bandhan, Nitco, Kerrogres by KAJARIA, OASIS, Regency Tiles, RAK, Anjani Tek,Nexion
IV	SUB-SECTION	PORCELAIN WALL TILES - Somany, Johnson, Kajaria, Sphinx, Orient Bell, Hindware, Ricasil, Cermaics Exxaro, Cera, Varmora, VITERO, Ambani, NCL Vitristik for Ceramic vitrified tiles on floor, NCL Tilostik for fixing Granite stones and NCL Marbstik for fixing Marble stones, SUNHEART CERAMIK, Bandhan, Nitco, Kerrogres by KAJARIA, Regency Tiles,RAK, Anjani Tek, Oasis,Nexion
V	SUB-SECTION	GLASS MOSAIC TILES - Bisazza,Palladio,Mridul,Opio, Mosaica,Italia,Nexion
VI	SUB-SECTION	WALL CLADDING TILES - Somany, Johnson, Kajaria, Sphinx, Orient Bell, Hindware, Cera, SUNHEART CERAMIK, Bandhan, Anjani Tek, Clayton ,Nexion
VII	SUB-SECTION	TERRAZZO FLOOR TILES (PLAIN & CHEQUERED) - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, Cemtech,Nexion
VIII	SUB-SECTION	CEMENT CONCRETE FLOORTILES (PLAIN & CHEQUERED) - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, DEC Industries Pvt Ltd,Nexion
IX	SUB-SECTION	PRE-CAST CONCRETE BLOCKS FOR PAVING - Super Decorative, Aditya Designer, Maha Bhima, Tricon, Pheonix, Eurocon, Ultra, Sphinx, Cemtech, DEC Industries PVT LTD, TUFFSTONES
X	SUB-SECTION	VINYL FLOORING - Marblax, Amstrong
		Stone Polymer Composite Tiles : Durell
		TILE ADHESIVE - MYK LATICRETE, Ambani, JK TileMaxX * Wall dado with cement-based adhesive - NCL Vitristik for Ceramic vitrified tiles * Cement based adhesive - NCL Tilostik for fixing Granite stones and NCL Marbstik for fixing Marble stones * Cement based Polymer modified jointing mortar - NCL Masonry glue * Cement based Polymer modified plastering mortar - NCL Render ;MAPEI , DEC Industries, Berger, Sika, Kerakoll, Polyglaze, JK TYLO

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
D	SECTION	TIMBER & ROOFING MATERIALS
VI	SUB-SECTION	ROOFING MATERIAL - DEC Industries PVT LTD, Alfaa
E	SECTION	STEEL MATERIALS
I	SUB-SECTION	MILD STEEL MATERIALS - MPL Steel Pipes, APL Apollo, TATA, Jindal, JSW, VSP, SAIL, ISMT, MS VAYU, Hariom
III	SUB-SECTION	STAINLESS STEEL MATERIALS - DEC Industries PVT LTD, TATA, Jindal, JSW, VSP, ISMT, Technoraill(SS balustrade), SAIL
F	SECTION	GLASS MATERIALS - Modifloat, Asahi, Saint-Gobain, Binani, HNG,Gold Plus, SUKI,Pilkington,Glaverbel,Modiguard, Fire rated glass - ASAHI Pyrobel, Saint Gobain, Pilkington, Schott, Pyroguard
G	SECTION	PAINTS & POLISHES - Asian Paints, Berger, Nerolac, British Paints, JK Cements, Nexon paints, Indocem, ESSAR, Sheenlac, Suryacem, Neon, Wallz, Walrus - SYNTHETIC PLASTER - NCL-Cement Primer (Interior, Exterior), NCL White Cement Putty, NCL-Alltek Spray Plaster, NCL-Skimcoat, Allteck Spray Plaster, NCL Gaiety, NCL-Delight, NCL-Harmony, NCL-Alltek Dune, NCL Alltek Acrylic Coarse, NCL Grey Coarse Putty, NCL Base Coat, NCL Flora, Allteck Deco Orient, MYK LATICRETE, Multichem, Essar, JK ShieldMaxX - White Cement, JK WhiteMaxX, LevelMaxX , JK GypsoMaxX , JK BondMaxX , Wall Putty (White cement based) JK WallMaxX, JK Primaxx(White Cement Based Primer),JK MaXX, Smoohtek, Shalimar, Snowcem, Nippon, New World Paints Pvt. Ltd, Technopaints and Chemicals Pvt. Ltd, BAKELITE COATINGS AND PAINTS , NCL Topcoat paint, Alltek Trendy, AlltekGoldline, Dulux Professional, DEC Industries, JSW PAINTS , Birla, ICI, , Jotun, Jenson & Nicholson, Master Builders, M/s Wonder Wall Putty (for wall putty), M/s ULTRATECH TEXTURE PAINTS PVT LTD, BIRLA OPUS PRIME, Aultra
H	SECTION	PARTICLE BOARDS - NCL Bison, Ramco-Hilux, Ramco-Hicem, Everest-board, Visaka-board, Rajshri, Innsula, Birla Aerocon, Aerolite, Novopan, Bhutan-board, Greenply, Greenpanel, Kajariaply, ECOBOARD , Greenlam, Duro, Merino, Kitlam, Century, Action ,Tesa
J	SECTION	PLYWOODS, LAMINATES & VENEERS - Kitply, Century Ply, National Ply, Bhutan Ply, Samrat, Gurjan ply, Aamoda, Mayur, Amul Boards, Greenply, Greenpanel, Kajariaply, PRAYAG POLYMERS, Archidply/ M/S DEC Industries PVT Ltd , Almo Laminates, Black cobra, VIRGO, city BOND, Riyom Industries Pvt.Ltd.,Greenlam, Merino, Formica, Century, Sunmica, Stylam
		NATURAL FIBRE COMPOSITE BOARDS -Indowud
K	SECTION	CEILINGS, WALL PARTITIONS & WALL LININGS -Ramco-Hilux, Everest-board, Visakha-board, Rajshri, Innsula, Gypsum India, Saint-Gobain, Armstrong, Daikin, NCL-Seccolor, NC Bison, Rock Strength, Aerolite, Knauf, Birla Aerocon, Diamond Ceilings , Aerolite, DIAMOND FRAMES , Almo Laminates, DEC Industries, QUTE, Gyproc, Lafarge, India Gypsum, , Alfaa, Anutone, Gypelite, Knauf Ceiling Solutions
L	SECTION	DOORS, SHUTTERS & FRAMES -
I	SUB SECTION	DOOR FRAMES
	L.I-01-02;07-10	CRCA FRAMES - NCL Buildtek, NCL FPS Door Frame, NCL Scientific Door Frames, Elixir Met Form , DEC Industries PVT LTD, Arpitha, Ahlada
	L.I- 03-06	PVC FRAMES - Sintex,Elgi,Polywood, NCL FPS Door Frame, Rehau, Nandi, DEC Industries PVT LTD, Galwin, Yashpoly, JAMEX, Rajshri, Elixir Met Form
	L.I.11-13	GALVANISED STEEL FRAMES - NCL Buildtek, Elixir Met Form, DEC Industries PVT LTD, Arpitha, Galwin, Ahlada

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
	L.I.17-19	WPC FRAMES - QUTE, Ecoste, HDHMR Doors - NCL, Greenpanel, Black cobra, DEC Industries Pvt Ltd, JAMEX, Galwin, Elixir Met Form
II	SUB SECTION	DOOR SHUTTERS
	L.II.01-12	FLUSH DOOR SHUTTERS - Anand, Raavila, Kuty, Standard, Shubhdwar, ITP, Rajshri, Masonite, Ambience, Aamoda, Greenpanel, Kajariaply, DEC Industries PVT LTD, Elegant Door and Ply Innovations, Black cobra, Greenply, Duro, Kitply, Century, Galwin, ITP, Jain Doors
	L.II.13-17,26	CEMENT BONDED PARTICLE BOARD - NCL Prelaminated ABS door shutter, NCL-Bison, Elixir Met Form, Everest, Vishaka
	L.II.18,21-23,25	PVC SHUTTERS - Sintex, Polywood, Nandi, DEC Industries PVT LTD, Yashpoly, Rajashri, JAMEX, Elixir Met Form
	L.II.19-20	HDF/MDF -Greenpanel
	L.II.24	STEEL SHUTTER - ULTIMATE SAFETY METAL DOORS, DEC Industries PVT LTD, Ahlada
	L.II.26	WPC SHUTTER - QUTE, HDHMR Doors - NCL, Ecoste, Ecocell, Greenpanel, Black cobra, DEC Industries Pvt Ltd, JAMEX, Galwin, Elixir Met Form
III	SUB SECTION	DOOR SHUTTERS WITH FRAMES
	L.III.01-05;13-17	PVC - NCL - Zylos, Sintex, Polywood, Nandi, Ecocell, Greenpanel, Black cobra, DEC Industries PVT LTD, Galwin, Yashpoly, Elixir Met Form, ITP
	L.III.06-07,31	CEMENT BONDED PARTICLE BOARD - NCL Prelaminated ABS door shutter, Everest, Vishaka, Elixir Met Form
	L.III.08-12;30	UPVC DOORS - Eroline/Sarvesh, QUTE, Marcolini, Aparna-Venster, Elgi, Oasis, NCL - Zylos, Fenesta, LG, SUDHAKAR PROFILE SYSTEMS, DEC Industries PVT LTD, Plastone, EUREKA WINDOOR SYSTEMS, NCL, Rehau, JAMEX, DIMEX, deceuninck Profiles, YashPoly, PSP., SCL-CORA, Galwin, SCL-Neu, Namu, LGuPVC, Euma, Spectra, ITP, Elixir Met Form, Prozonic
	L.III.18-20,29	MILD STEEL DOORS - ULTIMATE SAFETY METAL DOORS, DEC Industries PVT LTD, SHREEJI WOODCRAFT PVT LTD, NCL BUILDTEK-NCL OPTIMUS, AACCESS, Ahlada
	L.III,21	STAINLESS STEEL DOOR - ULTIMATE SAFETY METAL DOORS, SHREEJI WOODCRAFT PVT LTD, Ahlada, DEC Industries Pvt Ltd, NCL BUILDTEK-, AACCESS, ASK
	L.III.22-25	FIRE RATED DOORS - SHREEJI WOODCRAFT PVT LTD, Shakti Hormann, DEC Industries Pvt Ltd, NCL BUILDTEK-NCL OPTIMUS, AACCESS, Jain Doors, ASK, Ahlada, Alfaa
	L.III.26-27	CLEAN ROOM DOORS - Shakti Hormann, Eroline/Sarvesh, QUTE, Ahlada, DEC Industries Pvt Ltd, ASK
	L.III.28	FPVC DOORS - NCL, DEC Industries Pvt Ltd Elixir Met Form
	L.III.31-34	BISON LAM DOORS - NCL Bison, Vishaka, Everest
	L.III.35-46	WOODEN DOOR SHUTTERS WITH FRAMES - ITP
IV	SUB SECTION	CUPBOARD DOORS
	L.IV.01-02	CEMENT BONDED PARTICLE BOARD - NCL Prelaminated ABS door shutter, NCL-Bison, Elixir Met Form, Everest, Vishaka
	L.IV.03	PVC - Sintex, Polywood, Nandi, DEC Industries PVT LTD, Yashpoly
	L.IV.05	BISON PANEL - NCL Bison, Vishaka, Everest
M	SECTION	WINDOWS
I	SUB SECTION	OPENABLE WINDOWS
	M.I.01-18	PREPAINTED STEEL WINDOWS - NCL-Buildtek, Elixir Met Form, Ahlada, DEC Industries PVT LTD, Schueco, SS Secure, Ahlada, Galwin
	M.I.19-22	GALVANIZED POWDER COATED WINDOWS - NCL-Buildtek, Fenesta, Ahlada, ecoVUE, DEC Industries PVT LTD, Schueco, SS Secure,

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Ahlada, Galwin
	M.I.23-25	UPVC WINDOWS - Erolina/Sarvesh, Ambience, NCL-Buildtek, Elixir Met Form, Elgi, Oasis, NCL- ZYLOS, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, QUTE, ecoVUE, Marcolini, EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD, NCL Veka, Plastone, DIMEX, JAMEX, Aluplast, Duroplast, Encraft, PSP Dynamic, Koemmerling, Torfenster, Window Magic, deceuninck Profiles, YashPoly, PSP, SCL- CORA, Galwin, SCL-Neu, Namo, LGuPVC, Eumax, Spectra, ITP, Elixir Met Form, SUDHAKAR PROFILE SYSTEMS, Prozonic
	M.I.26-29	CEMENT BONDED PARTICLE BOARD WITH PPS SECTIONS - NCL-Buildtek, NCL-Bison, DEC Industries PVT LTD, Schueco
	M.I.30-39	BISON LAM - NCL-Buildtek, NCL-Bison
II	SUB SECTION	SLIDING WINDOWS
	M.II.01-09	GALVANIZED STEEL WINDOWS - NCL-Buildtek, Fenesta, Ahlada, ecoVUE, DEC Industries PVT LTD, Schueco, SS Secure, Ahlada, Namo, Elixir Met Form
	M.II.10-15	UPVC WINDOWS - Erolina/Sarvesh, Ambience, QUTE, Elixir Met Form, Elgi, Oasis, NCL-ZYLOS, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, NCL-Buildtek, ecoVUE, Marcolini, EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD, NCL Veka, Plastone, SS Secure, DIMEX, JAMEX, Aluplast, Duroplast, Encraft, PSP Dynamic, Koemmerling, Torfenster, Window Magic, NCL Zylos, deceuninck Profiles, YashPoly, PSP, SCL-Cora, Galwin, SCL-Neu, Namo, LGuPVC, Eumax, Spectra, ITP, Elixir Met For, SUDHAKAR PROFILE SYSTEMS, Prozonic
III	SUB SECTION	VENTILATORS
	M.III.01-06,09-13	PREPAINTED STEEL - NCL-Buildtek, Elixir Met Form, Ahlada, DEC Industries PVT LTD, Schueco, SS Secure, Galwin
	M.III.07-08	UPVC - Erolina/Sarvesh, Ambience, QUTE, Elixir Met Form, Elgi, Oasis, Fenesta, LG, Ahlada, Rehau, Arpitha, Win-Eshtas-Viswajeet Industries, Aparna Venster, NCL-Buildtek, ecoVUE, Marcolini, EUREKA WINDOOR SYSTEMS, DEC Industries PVT LTD, NCL Veka, Plastone, SS Secure, DIMEX, JAMEX, NCL Zylos, YashPoly, SCL-Cora, Galwin, SCL-Neu, Namo, LGuPVC, Eumax, Spectra, Prozonic
N	SECTION	STRUCTURAL GLAZING & CURTAIN WALLING - NCL Buildtek, NCL-Bison, Elixir Met Form, Sintex, Elgi, Oasis, Polywood, Sintex, NCL - Zylos, Fenesta, LG, Rehau, Arpitha, EUREKA WINDOOR SYSTEMS, DEC Industries Pvt Ltd, Galwin
P	SECTION	FIXTURES FOR DOORS & WINDOWS - Jyoti, Classic, Hardwyn, AKS for SS, Crown, GLOBEL (Aluminium Udyog)/Prayag Polymer, EUREKA WINDOOR SYSTEMS, M/s DEC Industries Pvt Ltd, Global ISI, Assa Abloy, Dorset, Ebco, Doorking, Everite, PAG, , Earl Bihari, Dorma, Godrej, Arkay, Hafele, Ozone, Hettich, Harrison, Geze, Hormann
Q	SECTION	CONSTRUCTION CHEMICALS & ADMIXTURES
		MAKE, APPLICATION METHOD, AREA AND DOSAGE
I	SUB-SECTION	PLASTICIZERS
	TBSC-Q.I-01	* Consplax of Armstrong Chemicals Pvt Ltd, Bengaluru * Conplast of Fosroc Chemicals India Pvt Ltd, Bengaluru (200ml/50Kgs Cement) * Zoriplax of Protect More Construction chemicals, Hyderabad. (Dosage 20ml per 50 Kgs cement). for M 20 + grade concrete works in slabs /canal lining works/ roads works**MYK SAVEMIX SERIES M/S by MYK Arment, Hyderabad.* "MYK SAVEMIX" dosage from 0.5% - 1.5% by weight of cement * BOND TUF CONSTRUCTION CHEMICALS/ Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products/ DEC Industries PVT LTD , MAPEI

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Berger, TP Buildtech, Sika, Chryso, Talrak
	TBSC-Q.I-02	* Roofplast HS 100 of Armstrong Chemicals Pvt Ltd, Bengaluru * Structuro100 of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoriplast HS of Protect More Construction Chemicals, ** MYK Remecrete P30 M/S by MYK Arment,Hyderabad.* Dosage 0.5 to 1 Ltr per 100kgs of Cement *BONDTUF CONSTRUCTION CHEMICALS/ Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger,TPBuildtech, Sika, Chryso, Talrak
	TBSC-Q.I-03	*Roofplast SP 35of Armstrong Chemicals Pvt Ltd. Bengaluru *Conplast SP 337 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriplast SP 350 of Protect More Construction chemicals. * Rheomac 707 of BASF *Conflow (Dosage: 200ml to 500ml per bag of 50 Kgs Cement) . for M30+ grade concrete works like road projects / Canal linings / Dams / Reservoirs / Building's concrete works * Power35 of EBT (Dosage : 300 ml to 500 ml Per Bag of 50 Kgs Cement) * MYK Savemix RP 333 M/S by MYK Arment,Hyderabad.* Dosage at a rate between 0.15 and 0.40 kgs /50 kg cement * NCL Vitristik * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD, MAPEI, Berger, TP Buildtech, Sika, Chryso, Talrak
	TBSC-Q.I-04	*Roofplast SP 45 of Armstrong Chemicals Pvt Ltd, Bengaluru*Consplast SP 430 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriplast SP 450 of Protect More Construction Chemicals (Dosage: 200ml to 500ml per bag of 50 Kgs Cement) for high early strength and high range water reducing admixture for M40+ grade concrete works like road projects/Canal linings/Dams/Reservoirs /Building's concrete works *Power45 of EBT (Dosage : 300 ml to 500 ml Per Bag of 50 Kgs Cement) * MYK Remecrete PC10 M/S by MYK Arment,Hyderabad.* Dosage rangebetween0.3to2.5ltrs/100 kg of cementitious material * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI , BergerTPBuildtech, Sika, Chryso, Talrak
	TBSC-Q.I-05	*Roofplast SR 45 of Armstrong Chemicals Pvt Ltd, Bengaluru*Conplast RP264 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoriplast SRT 5 of Protect More Construction Chemicals (Dosage : 300ml to 400ml per bag of 50 Kgs Cement).For delaying of initial setting time and M 40+ Grade concrete works * Power SR 45 of EBT (Dosage: 200 ml to 500 ml per bag of 50 Kgs Cement) * MYK Savemix RP 333 M/S by MYK Arment,Hyderabad.* Dosage at a rate between 0.15 and 0.40 kgs /50 kg cement * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger,TPBuildtech, Sika, Chryso, Talrak
	TBSC-Q.I-06	*Roofplast SCA of Armstrong Chemicals Pvt Ltd, Bengaluru*Conplast NC of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoriset of Protect More Construction Chemicals (Dosage:1 Kg to 3 Kgs per bag of 50 Kgs Cement depending on the setting time required).For shotcrete / Guniting / Emergency concrete works * Power-200 of EBT or Equivalent (Dosage:1 Kg to 3 Kgs per bag of 50 Kgs Cement depending on the setting time required) * BONDTUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger, TP Buildtech, Sika,

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Chryso,Talrak
	TBSC-Q.I-07	ALSTRONG CA 353 of M/s. Armstrong Chemicals Pvt Ltd ,Bengaluru / ZORIBOND CRA 35 of M/s. Protect More Construction Chemicals (PMCC). POWER n STRENGTH of M/s. EBT Construction Chemicals/ FOSROC (500ml Per Bag of 50 Kgs Cement) * BONDUF CONSTRUCTION CHEMICALS * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products / DEC Industries PVT LTD , MAPEI, Berger, TPBuildtech, Sika, Chryso,Talrak
II	SUB-SECTION	WATER PROOFING COMPOUNDS
	TBSC-Q.II-01	*Rainproof No.1 of Armstrong Chemicals Pvt Ltd Bengaluru *Conplast 421 of Fosroc Chemicals India Pvt Ltd Bengaluru (125ml Per50 Kgs Cement) *Zoriproof No.1 of Protect More construction Chemicals. : (Dosage : 100ml Per Bag of 50 Kgs Cement) *MYK PROOF WP10 M/S by MYK ARMENT,Hyderabad. Dosage - 150-200Gms per bag of cement * E160 of ArdexEndura : (200 ml per 50 Kgs Bag), Pidilite * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products * Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC-Bauchemie, Technonicol
	TBSC-Q.II-02	*Roofbond RFX of Armstrong Chemicals Pvt Ltd, Bengaluru. *Brushbond RFX of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricoat RX of Protect More Construction Chemicals. *Masre Seal 550 Grey of Base. (12-14 m2 in two coats to achieve 1mm thickness). Terrace, Water Tanks, Walls Waterproof Coatings : of Two Part System: *EBT - Power RFX *MYK BETOCRETE C-35 M/S by MYK Arment, Hyderabad Dosage - 0.8 - 1.5% by weight of cement * WPM 004 of Ardex Endura : (12-14 m2 in two coats to achieve 1mm thickness) * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products * Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, DEC Industries Pvt Ltd, Berger, Talrak, MC-Bauchemie, Technonicol
	TBSC-Q.II-03	* Roof coat of Armstrong Chemicals Pvt Ltd, Bengaluru * Brushbond of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoricoat of Protect More Construction Chemicals Terrace, Water Tanks, Walls, Reservoirs Waterproofing Coatings : Surface treatments* Asian Paints *MYK AQUAFIN ADMIX M/S by MYK Arment, Hyderabad-Dosage Rate: w/c ratio < 0.45: 2 % of cement content w/c ratio > 0.45: 3 % of cement content * WPM 004 OF Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond , MAPEI , BERGER, Sika, Kerakoll, DEC Industries Pvt Ltd, Berger, Talrak, MC- Bauchemie,, Technonicol
	TBSC-Q.II-04	*Rainseal of Armstrong Chemicals Pvt Ltd, Bengaluru *Proofex SM of Fosroc Chemicals India Pvt Ltd, Bengaluru, *Zoricoat XL of Protect More Construction Chemicals. wherever highly flexible, crack bridging ,waterproofing required (Coverage : 50 to 60 SFT Per/Ltr/Coat) (for brush / spray application add 20% water per Ltr) Terrace, Walls Highly Flexible Waterproof Liquid Membrane pure Acrylic Coatings : **MYK Coat WPU-1K(E) M/S by MYK Arment, Hyderabad-Coverage at minimum of 1.8 kg per m2 for thickness of 1.1 mm * WPM 004 OF Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing,

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie,, Technonicol
	TBSC-Q.II-05	*Rapid strong QS of Armstrong Chemicals Pvt Ltd Bengaluru *Patchro C of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zorirapidr of Protect More Construction Chemicals * Conflow (Dosage : 1 to 3 Ltrs per bag of 50 Kgs Cement depending on the setting time required). * CLEAN TECH CORROSION CHEMICALS Concure Plus (200 -250 ml per Bag of cement)For emergency works/Anti wash and under water concreting: *MYK AQUAFINTGM/ Sby MYK Arment, Hyderabad Dosage Rate:at1.5-2.5kg/m ² . * A4/5 WPM 401 of Ardex Endura * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
	TBSC-Q.II-06	*Rainseal Flexi Coat B30 of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru. *Zoricoat BL of Protect More Construction Chemicals. : wherever highly flexible, crack bridging, Sewage treatment plants, pipelines, Reservoirs and waterproofing required. *MYK Arment * WPM 004 of Ardex Endura * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL ,Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
	TBSC-Q.II-07	ROOFBOND FRC of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT FRC of M/s. Protect More Construction Chemicals (PMCC). POWER n BOND FRX 2 of M/s. EBT Construction Chemicals / FOSROC (Coverage : 30 to 40 SFT / Ltr / Two coats) * PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
	TBSC-Q.II-08	RAINSEAL CFR of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT EFC of M/s. Protect More Construction Chemicals (PMCC). POWER n COAT EFC of M/s.EBT Construction Chemicals/FOSROC *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products, IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
	TBSC-Q.II-09	ALSTRONG CC 153 of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORIBOND CTC 15 of M/s. Protect More Construction Chemicals (PMCC) (Coverage : 1 Ltr 20 SFT / 2 Coats). POWER n STRENGTH PEN of M/s. EBT Construction Chemicals /FOSROC *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
	TBSC-Q.II-10	ROOFCARE PU of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT PU of M/s. Protect More Construction Chemicals (PMCC) , POWER n COAT BPU of M/s. EBT Construction Chemicals / FOSROC. *PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Chryso, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
	TBSC-Q.II-11	ROOFCARE WR of M/s. Armstrong Chemicals Pvt Ltd, Bengaluru / ZORICOAT WR of M/s. Protect More Construction Chemicals (

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		PMCC),POWER n REPEL Wrof M/s. EBT Construction Chemicals / FOSROC/ PIDILITE INDUSTRIES LIMITED * Sunanda Speciality Coatings Pvt Ltd / Asian Paints - Water Proofing, Industrial Floorings and Admixtures Products , IWL, Acebond, MAPEI , BERGER, Sika, Kerakoll, Berger, Talrak, MC- Bauchemie, Technonicol
III	SUB-SECTION	BONDING AGENTS/ ADHESIVES
	TBSC-Q.III-01	*Roofbond PB of Armstrong Chemicals Pvt Ltd Bengaluru *Nitobond AR of Fosroc Chemical India Pvt Ltd Bengaluru *Zoribond PB of Protect More Construction Chemicals. (Mix: 1:1 ratio of cement)50 SFT / Ltr /coat depending on the substrate) On terrace old concrete to new mortar / screed : *MYK bond AR 43 M/S by MYK Arment, Hyderabad*Coverage: as a bonding agent: approximate 4 - 5 m2 / kg depending on substrate, porosity* E135 of Ardex Endura (2.5 Lit for 50 Kgs of cement) , Chryso, Acebond, MAPEI , CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika, Bricklite
	TBSC-Q.III-02	*Roofbond SBR of Armstrong Chemicals Pvt Ltd Bengaluru *Nitobond SBR of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoribond SBR of Protect More Construction Chemicals. (50 SFT / Ltr /coat depending on the substrate) For ceiling / concrete repairs and bonding : mortar/concrete *MYK bond SBR 45 M/S by MYK Arment, Hyderabad* Dosage :For patching and repair mortars and plaster for masonry 10 Ltr of MYK Bond SBR per 50 Kgs- cement* E135 of Ardex Endura(2.5Litfor50Kgs of cement)/ M/S DEC Industries manufactured products , Chryso, Acebond, MAPEI , CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika Bricklite
	TBSC-Q.III-03	*Roofbond EP of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitobond EP of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zoribond EP of Protect More Construction Chemicals. (Coverage : 20 - 25 SFT / Kg /Coat) For Structural concrete repairs / bonding : Old concrete to new concrete epoxy bonding : *MYK Bond EB A M/Sby MYK Arment, Hyderabad* Coverage Approx.2.6 Sq.Mtr per 1 kgs * EP 300 of Ardex Endura (10 sqm per 5 Lit per coat of 50 microns)* Epoxy emulsion grout/synthetic/resin adhesive -NCL Vitristik Ceramic & Vitrified tile, Chryso, Acebond, MAPEI , CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika Bricklite
	TBSC-Q.III-04	Admix AD1 of Ardex Endura
		Silver/Diamond &Platinum stars of Ardex Endura
		ALSTRONG CA 353 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CRA 35 of M/s. Protect More Construction Chemicals (PMCC). POWER nSTRENGTH of M/s. EBT Construction Chemicals / FOSROC (500ml Per Bag of 50 Kgs Cement) ,Chryso, Acebond, MAPEI , CHEMTECH
		ALSTRONG CB 253 of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIBOND CB 25 of M/s. Protect More Construction Chemicals (PMCC). POWER n BOND RGB of M/s. EBT Construction Chemicals / FOSROC (Coverage : 1 Ltr / 40 SFT / Coat) , Chryso, Acebond, MAPEI , CHEMTECH
	TBSC-Q.III-05	M/S DEC Industries manufactured products
IV	SUB-SECTION	ANTI-CORROSIVE AGENTS
	TBSC-Q.IV-01	*Roofguard AC of Armstrong Chemicals Pvt Ltd Bengaluru *Fosroc Chemicals India Pvt Ltd Bengaluru*Zoriguard AC of Protect More Construction Chemicals.(40 SFT Per Ltr / Coat) * CLEAN TECH CORROSION CHEMICALS Concacre-XL (200 ml to 250 ml per Bag of Cement To protect the exposed reinforcement / steel structures against corrosion : *MYK RUST Remover M/S by MYK Arment, Hyderabad*, IWL, Chryso, Acebond, MAPEI , Berger, Talrak, MC-

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Bauchemie, Sika
	TBSC-Q.IV-02	*Roofguard RC of Armstrong Chemicals Pvt Ltd Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriguard RC of Protect More Construction Chemicals Hyderabad. (50 SFT Per Ltr / Coat) During repairs to protect, to convert the rust of reinforcement / steel : *MYK RUST CONVERTOR M/S by MYK Arment, Hyderabad*, IWL, Chryso, Acebond, MAPEI , Berger, Talrak, MC- Bauchemie, Sika
	TBSC-Q.IV-03	*Roofguard ZP of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoprime Zinc Rich of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriguard ZP of Protect More Construction Chemicals, Hyderabad. (Coverage : 4 Sq.Mtr. /Ltr / Coat) *MYK Savemix CN 100 M/S by MYK Arment, Hyderabad - Recommended 0.90 chloride to nitrite ratio 30% CaNO2 Sol * EP 410 of Ardex Endura (Coverage : 10 Sq.Mtr. /5 Ltr / Coat of 250 Microns) , IWL, Chryso, Acebond, MAPEI , Berger, Talrak, MC- Bauchemie, Sika
	TBSC-Q.IV-04	Supply of anti-corrosion admixture inhibitor liquid as per Central Electro Chemical Research Institute developed specification and licensee of Concure or Concure Plus or Equivalent (300 ml to 500 ml per Bag of 50 Kgs Cement)/ DEC Industries PVT LTD , IWL, Chryso, Acebond, MAPEI , Berger, Talrak, MC- Bauchemie, Sika
V	SUB-SECTION	GROUTS
	TBSC-Q.V-01	*Rapidstrong Grout AG of Armstrong Chemicals Pvt Ltd, Bengaluru*Lock fix of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zori fix of Protect More Construction Chemicals (Yield 0.5Ltrs / 1 Kg Pack) Anchoring /fix the steel bars into the rocks, concrete for foundations, extension of concrete :*EBT Power Anchor grout . (Yield 0.5 Ltrs / 1 Kg Pack) *MYK GROUT M 65 Yield: 13.0 Ltsatflowableconsistencyfor25KgsofHDPEbags/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze, JK TYLO, CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika Bricklite
	TBSC-Q.V-02	*Rapidstrong Grout GP2 of Armstrong Chemicals Pvt Ltd, Bengaluru*Conbextra GP2 of Fosroc Chemicals India Pvt Ltd, Bengaluru*Zori grout GP 2 of Protect More Construction Chemicals For machinery / thin sections of concrete joints Filling : *EBT Power GP2 Grout (Yield 13.5 Ltrs Per 25 Kgs Bag). *MYK Arment MYK Grout Inject E-200 Approx. 1.06 kg for filling up of 1000 cc/ M/S DEC Industries manufactured products , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze, JK TYLO, CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika Bricklite
	TBSC-Q.V-03	*Rapidstrong Grout EP of Armstrong Chemicals Pvt Ltd , Bengaluru*Conbextra EP10 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zori grout EP of Protect More Construction Chemicals. (Two parts system).(Density 1.07 Kg Per Ltr)For Structural strengthening, filling of honeycomb / voids in the concrete : *EBT Power EPL Grout *MYK Arment MYK Grout EP750 (Yield: Approx. 9.5 Liter volume per 19 kg pack) , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze, JK TYLO, CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika Bricklite
	TBSC-Q.V-04	*Rapidstrong Grout EP3 of Armstrong Chemicals Pvt Ltd, Bengaluru *Conbextra EP300 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zori grout EP3 of Protect More Construction Chemicals. Concrete strengthening and filling concrete repairs *EBT Power EP Grout *MYK Arment MYK INDUGROUT-EP10 approx. 1.60 kg/liters or 16.0 k g/10 mm thick gap/m2. , IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze, JK TYLO, CHEMTECH, Berger, Talrak, MC- Bauchemie,

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Sika Bricklite
	TBSC-Q.V-05	RAPIDSTRONG GROUT PU of M/s. Armstrong Chemicals Pvt Ltd , Bengaluru / ZORIGROUT PU of M/s. Protect More Construction Chemicals (PMCC). M/s. POWER n GROUT RPU of M/s. EBT Construction Chemicals / FOSROC, IWL, Chryso, Acebond, MAPEI , Berger, Kerakoll, Polyglaze, JK TYLO, CHEMTECH, Berger, Talrak, MC- Bauchemie, Sika Bricklite
VI	SUB-SECTION	MISCELLANEOUS CHEMICALS
	TBSC-Q.VI-01	*Roofcare MRA of Armstrong Chemicals Pvt Ltd, Bengaluru *Reebol of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zorislip of Protect More Construction Chemicals (Coverage: 1 Ltr will cover approx. 20 to 30m2 on method and material of the form) *MY Schomburg * DEC Industries PVT LTD , IWL, Chryso, Acebond
	TBSC-Q.VI-02	*Rapidstrong FM of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd. Bengaluru. *ZorifloorNH of Protect More Construction Chemicals. :(Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance)* EBT PowerHard M-100 *MYK Arment, IWL, Chryso, Acebond
	TBSC-Q.VI-03	* Rapidstrong NH of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoflor Hardtop/Hard Standard of Fosroc Chemicals India Pvt Ltd, Bengaluru. * Zorifloor DH of Protect More Construction Chemicals* Mastertof 100 Grey of BASF :(Coverage : May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic. Higher application rates yield better abrasion resistance) *EBT PowerHard NM-100. (Coverage: May be applied at rate 3.5 Kgs /m2 over green concrete for normal traffic & 6-12 Kg / M2 for heavy traffic) *MYK Arment MYK TOP 150 Application rate Kg/M2 Intended traffic use AvgWear (IS1237-1980) 7 kgs Heavy <2mm 5 Kgs Medium >2<3.5mm 3 kgs Light>3.5<4mm, IWL, Chryso, Acebond
	TBSC-Q.VI-04	*Roofcrete MC of Armstrong Chemicals Pvt Ltd, Bengaluru / *Rendroc RG of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete MC of Protect More Construction Chemicals. *MYK Arment MYK Top 200 Coverage :Light traffic 2.5 to 3.5 edium traffic 4 to 5 kg/m ² Heavy traffic 6 to 7 kg/m ² / M/S DEC Industries manufactured products , IWL, Chryso, Acebond
	TBSC-Q.VI-05	*Roofcrete AR of Armstrong Chemicals Pvt Ltd, Bengaluru *Cemtop 400 SD of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete CMG of Protect More Construction Chemicals. To achieve High Strength Concreting / Structural rehabilitation / concrete repairs : *MYK Arment MYK SOLOPLAN -30 For layers of less than 20 mm recommend 5.0 - 5.4 L of water to 25 kg of SOLOPLAN- 30.Forlayersof 20mmandhigher,werecommend4.7- 5.1Lofwaterto25kgof SOLOPLAN-30 * Expansive acqua reactive water barrier grouting system - NCL Tile grout, IWL, Chryso, Acebond
	TBSC-Q.VI-06	*Roofcrete EM of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricrete ERM of Protect More Construction Chemicals. For wherever repeated failures takes place, resistance to chemicals. Repairing of Deteriorated concrete with High Strength Flexural / Compressive Strength with High Standard Bonding: *MYK Arment MYK Crete CMS 4500 M/Sby MYK Arment, Hyderabad*appliedupto50mmthicknessat2kgperm2 at 1mmthickness. ,IWL, Chryso, Acebond
	TBSC-Q.VI-07	*Roofex of Armstrong Chemicals Pvt Ltd, Bengaluru *Brushbond Tap of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoripex of Protect More Construction Chemicals. For Negative Water Pressure

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Treatments like Cellar / Ceiling areas etc., : *MYK Arment, IWL, Chryso
	TBSC-Q.VI-08	*Roofseal PU of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoseal PU 280 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal PU of Protect More Construction Chemicals. For Expansion Joints / Terrace Cracks / Wall & Beam junction cracks ; Runway Joints etc., : *MYK Arment, IWL, Chryso, Acebond,
	TBSC-Q.VI-09	* Roofseal PS of Armstrong Chemicals Pvt Ltd, Bengaluru * Thioflex 600 of Fosroc Chemicals India Pvt Ltd, Bengaluru * Zoriseal PS of Protect More Construction Chemicals. For Expansion Joints / Terrace Cracks : *MYK Arment, IWL, Chryso, Acebond,
	TBSC-Q.VI-10	*Wonderseal XL of Armstrong Chemicals Pvt Ltd, Bengaluru *Decofil of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal XL of Protect More Construction Chemicals. External / Internal Wall Cracks Sealing *MYK Arment, IWL, Chryso, Acebond,
	TBSC-Q.VI-11	*Wonderseal Plug of Armstrong Chemicals Pvt Ltd, Bengaluru *Renderroc Plug of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriseal Plug of Protect More Construction Chemicals. ,IWL, Chryso, Acebond
	TBSC-Q.VI-12	*Roofcoat PU400 of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitocote UR 512 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoricoat PU of Protect More Construction Chemicals. for floorings / Walls. ,IWL, Chryso, Acebond
	TBSC-Q.VI-13	*Roofguard CTE of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitocote ET 550 of Fosroc Chemicals India Pvt Ltd, Bengaluru / *Zoriguard CTE of Protect More Construction Chemical. : tar-based epoxy coating for sewage treatment plants, pipelines protective coating for steel reinforcement. ,IWL, Chryso, Acebond
	TBSC-Q.VI-14	*Roofexure WB of Armstrong Chemicals Pvt Ltd, Bengaluru *Concure WB of Fosroc Chemicals Pvt Ltd, Bengaluru *Zoricure WB of Protect More Construction Chemicals. (Coverage : 4 Sq. Mtrs / Ltr / Coat)/ M/S DEC Industries manufactured products ,IWL, Chryso, Acebond, Berger
	TBSC-Q.VI-15	*Rainseal BS of Armstrong Chemicals Pvt Ltd, Bengaluru *Fosroc Chemicals India Pvt Ltd, Bengaluru. *Zoriseal BS Grade 'A' of Protect More Construction Chemicals. for construction joints of roads / bridges. ,IWL, Chryso, Acebond
	TBSC-Q.VI-16	*Rainseal BT Primer of Armstrong Chemicals Pvt Ltd, Bengaluru *Nitoproof 100 of Fosroc Chemicals India Pvt Ltd, Bengaluru *Zoriprime BT of Protect More Construction Chemicals, IWL, Chryso, Acebond
	TBSC-Q.VI-17	*Roofplast AEA of Armstrong Chemicals Pvt Ltd Bengaluru *Conplast AEA of Fosroc Chemicals India Pvt Ltd, Bengaluru (Dosage : 200ml Per 50 Kgs Cement)*Zoriplast AEA of Protect More Construction Chemicals. (Dosage : 15ml to 20ml per bag of 50 Kgs Cement) For entrainment of air, recommended for canal lining works, mass concreting etc : *EBT Power AEA Plasticizer (Dosage : 15ml per Bag of 50 Kgs Cement) ,IWL, Chryso, Acebond
		Belmix, IWL, Chryso, Acebond
		Macro Synthetic Fibers of Propex ASTM C1116/ 1116M -45mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining etc., 4 to 7 kg per 1 CuM, IWL, Chryso, Acebond
		Steel Fibers of Propex Novocon HE05535 EN 14889-1:2006 -35mm length for CC Roads, Ground Supported Slabs, Pavements, Sprayed Concrete, Tunnel linings, Mining etc., 15 to 22 kg per 1 CuM, IWL, Chryso, Acebond

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		ALSTRONG CM 666 of M/s. Armstrong Chemicals Pvt Ltd ,Bengaluru / ZORICOAT CM of M/s. Protect More Construction Chemicals (PMCC). M/s. POWER n GUARD ADM of EBT Construction Chemicals / FOSROC(Coverage : 1 Ltr / 40 SFT / Coat) ,IWL, Chryso, Acebond
		Anticarbonation coating for Concrete structures- Belmix
		PU coating for steel structures - Belmix
VII	SUB-SECTION	REPAIRING & TREATMENT WORKS
	TBSC-Q.VII-1	RAINSEAL FELT of Armstrong / Fosroc / ZORIFELT BT of PMCC, Supreme Tar Products/ Shivam Tarfelt(Membrane felt) , IWL
	TBSC-Q.VII-2	RAINSEAL HDP 1500 of Armstrong / Fosroc / ZORISHIELD 1500 of PMCC/Roofshield/ Shivam Tarfelt, IWL,
	TBSC-Q.VII-3	RAINSEAL BT PRIMER of Armstrong / Fosroc /STP/PMCC/ Asian/ LeakShield, IWL
	TBSC-Q.VII-4	ROOFBOND RFX of Armstrong /BRUSHBOND RFX of Fosroc / ZORIBOND RFX of PMCC. * MYK Arment MYK AQUAFIN TG M/S by MYK Arment,Hyderabad.* MYK AQUAFIN TG is two component cementations, polymer dispersion based flexible protective coating and waterproof barrier. This product is two-component and resistant to water, moisture and abrasion. Dosage Rate: MYK AQUAFINTG to be applied typically at 1.5-2.5kg/m ² ., IWL
	TBSC-Q.VII-5	RAINSEAL FLEXICOATB 300 of Armstrong / NITOPROOF120 ofFosroc /ZORICOAT BL of PMCC (Coverage : 1Ltr /100 SFT/ Each Coat) diluting with water at 1:1 ratio as a primer coat. RAINSEAL FLEXICOAT B 300 of Armstrong / NITOPROOF 120 of Fosroc /ZORICOAT BL of PMCC topcoat diluting with 20% of water (Coverage : 1Ltr /5 Sqm /Each Coat) , IWL
	TBSC-Q.VII-6	RAINSEAL of Armstrong /PROOFEX SM of Fosroc / ZORICOAT XL of SMCC(1 Ltr/10 Sq.Mtr./Each Coat) diluting with water at 1:1 ratio as a primer coat , Next coat with -RAINSEAL of Armstrong / PROOFEX SM of Fosroc / ZORICOAT XL of PMCC mixing with 20 % of Water. (1 Ltr/5 Sq.Mtr/Each Coat) final coat with--RAINSEAL of Armstrong /PROOFEX SM of Fosroc / ZORICOAT XL of PMCC (1 Ltr/2 Sq.Mtr/Each Coat)diluting with 20% of water. * MYK Arment MYK Coat WPU-1K(e) M/S by MYK Arment,Hyderabad.* Recommended coverage at minimum of 1.8kg per m2 for thickness of 1.1 mm, IWL
	TBSC-Q.VII-7	Polymer bonding agent: - ROOFBOND SBR of Armstrong / NITOBOND SBR of Fosroc / ZORIBOND SBR of PMCC (Coverage : 1 Ltr /5 Sqm / Each Coat), next with - Acrylic Polymer modified reinstatement concrete /mortar ROOFCRETE AR of Armstrong / CEMTOP 400 SD of Fosroc/ZORICRETE CMG of PMCC to finish and polysulphide sealant with ROOFSEALPS of Armstrong/THIOFLEX600 of Fosroc / ZORISEAL PS of PMCC (Coverage : 1 Kg Per 1.8 RMT) finally with - ROOFCOAT of Armstrong / BRUSHBOND of Fosroc /ZORICOAT of PMCC mixing with Cement at 1: 2 ratio. (Coverage : 1 Ltr / 2.5 Sqm /Coat)* MYK Arment Seals * COHERE TECH INDIA PVT LTD / M/s DEC Industries Pvt Ltd, IWL,
	TBSC-Q.VII-09	Ador Granite Series of MYK Arment Coverage: Primer Approx. 0.350 kg/m ² - final Texture Coat Approx. 0.70 to 0.80 kg/m ² , IWL
	TBSC-Q.VII-10	MYK Arment Parking System - Coverage: Primer Approx. 0.350 kg/m ² - final Coat Approx. 0.70 to 0.80 kg/m ² , IWL
	TBSC-Q.VII-11	MYK Arment Conductive Flooring System - Coverage: Primer Approx. 0.350 kg/m ² - final Coat Approx. 0.70 to 0.80 kg/m ² , IWL
	TBSC-Q.VII-12	MYKSchomburg- Coverage:Approximately0.450kg/m ² intwocoatforaDFTof Approx 200 micron. Primer (10 % dilution with water) is approx. 0.150 to 0.200

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		kg/m ² Note:Higherconsumptionisexpectedonroughsurfaces. , IWL
	TBSC-Q.VII-14-16	Belmix
VIII	TBSC-Q.VIII-01-6	Silseal, Silflex, Armour, Shalitex
	TBSC-Q.VIII-07-11	Silseal, Silflex, Armour, Shalitex
R	SECTION	MISCELLANEOUS ITEMS
I	TBSC-R.I-1 to 98	(a) Sintex, Aquatech for PVC tanks(b) Century wells & Sudarshana for Galvalume sheets (c) Elixir Met Form for PEB structures (d) Aluminium Sections - Hindalco, Nalco, Jindal, Geetha series , Schueco, bhoruka,Indal(e) ACP Sheets - Alucopanel, alucobonel, Reynobond, Lennox Durabuid, Istronglegame, Alpolic, Alcomat, Alshine, Viva, Aludecor, Alucobond, Alubond, Aludecor, Eurobondor, Aldekof)Gypsum plaster-NKV Home Depot, Gyplite, Eurobond, Alex Panels(f) AC Sheets - Charminar Fortune (g) Ant termite Treatment - Bayer (h) MPC (Mineral Polymer Composite) Grills/Jali - Esoste, Carpets - Welspun (i) Polycarbonate sheets - DPI Daylighting , GE Plastic, Gallina (USA), Macrolux (UK), Don, Lexan(j) Design, fabrication & supply of light weight pre-engineered buildings - DEC Industries PVT LTD, NCL Buildtek- Kirby (k) Artificial Grass - Welspun (l) Hard-Composite tile - Welspun (m) GFRP Bars - Tata Steel, (n) ICLAD (o) Wall Guard and Hand Rail - INPRO
II	TBSC-R.II-1 to 6	NYLON CARPETS - WELSPUN
III	TBSC-R.III-1 to 4	ACRYLIC SOLID SURFACES - MERINO HANEX SOLID SURFACES
IV	TBSC-R.IV-1 to 5	GARBAGE BINS - SINTEX, OXYGEN, NILKAMAL
V	TBSC-R.V-1 to 6	ANCHOR FASTENERS(Wedge/Expansion/Sleeve) - HILTI
VI	TBSC-R.VI-1 to 6	ANCHOR FASTENERS WITH CHEMICAL BONDING - HILTI
VII	TBSC-R.VII-1 to 4	Passive firestop system - HILTI

5.0 OTHER GUIDELINES AND AMENDMENTS TO DATA ITEMS									
The estimate preparing and sanctioning authorities are requested to invariably enclose (i) quarry maps showing the shortest distance from the work site to the quarry from where materials are proposed to be carted and (ii) certificates of quality, quantity, and availability of materials in the identified quarries, for all those lead items of estimate at the time of technical sanctions.									
Hire charges for Mechanical Lift of materials, scaffolds and other items have been appended to this section. Estimate preparing authorities are requested to note that these mechanical charges are to be adopted for high rise buildings. If the mechanical lift charges are adopted irrespective of number of floors, then the manual lift charges need not be considered.									
S.No	Item of work	Unit	Floors						Unit
			2 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	Winch Hire charges
Material Lifting (for finished item)									
1	Bricks/ Masonry	Cum	0.1280	0.1900	0.2630	0.3510	0.4550	0.5780	Hours
2	Tiles/Flooring stones	Sqm	0.0700	0.0810	0.0950	0.1100	0.1270	0.1470	Hours
3	Plastering (12mm thick)	Sqm	0.0015	0.0023	0.0032	0.0042	0.0055	0.0069	Hours
4	Impervious coat (20mm thick)	Sqm	0.0026	0.0038	0.0053	0.0070	0.0091	0.0116	Hours
5	Granolithic Flooring (20mm thick)	Sqm	0.0026	0.0038	0.0053	0.0070	0.0091	0.0116	Hours
6	Precast RCC racks	Sqm	0.0050	0.0074	0.0103	0.0137	0.0177	0.0225	Hours
7	Cinder	Cum	0.1280	0.1900	0.2630	0.3510	0.4550	0.5780	Hours
6	TMT or HYSD Bars	MT	0.1330	0.1730	0.2190	0.2740	0.3390	0.4140	Hours
Lifting of scaffolds									
1	Masonry	Sqm	0.0260	0.0310	0.0380	0.0450	0.0540	0.0640	Hours
2	Plastering/ External texture	Sqm	0.0026	0.0031	0.0038	0.0045	0.0054	0.0064	Hours
Lifting Scaffolds for RCC Members (excluding concrete pumping charges)									
A	LINTELS	Cum	0.2220	0.2690	0.3240	0.3870	0.4610	0.5470	Hours
B	CHAJJAS - SUNSHADES	Sqm	0.0340	0.0410	0.0500	0.0600	0.0710	0.0840	Hours
C	COLUMNS	Cum	0.3120	0.3780	0.4550	0.5440	0.6480	0.7680	Hours
D	BEAMS	Cum	0.2610	0.3170	0.3810	0.4560	0.5430	0.6440	Hours
E	SLABS - Up to 150 mm thick	Sqm	0.0300	0.0360	0.0430	0.0520	0.0620	0.0730	Hours
F	SLABS - above 150 mm - Up to 300mm	Sqm	0.0300	0.0370	0.0440	0.0530	0.0630	0.0750	Hours
G	SLABS - above 300 mm thick	Sqm	0.0320	0.0390	0.0460	0.0560	0.0660	0.0780	Hours
H	WAFFLE SLABS (Rib Beams with Slabs)	Sqm	0.1080	0.1300	0.1570	0.1880	0.2240	0.2650	Hours
I	PERGOLA SLABS (Only Rib Beams)	Sqm	0.0750	0.0910	0.1100	0.1320	0.1570	0.1860	Hours
J	ARCH BEAMS - up to 1.5 M Span	Cum	0.2970	0.3600	0.4340	0.5190	0.6180	0.7320	Hours
K	ARCH BEAMS - above 1.5 M Span	Cum	0.3010	0.3650	0.4400	0.5260	0.6260	0.7420	Hours
L	DOME SLABS	Cum	0.4800	0.5820	0.7010	0.8390	0.9990	1.1840	Hours
M	HELICAL STAIRCASES	Sqm	0.0370	0.0440	0.0530	0.0640	0.0760	0.0900	Hours
N	Shear Walls, RCC & Water tank Walls	Sqm	0.0610	0.0740	0.0890	0.1060	0.1270	0.1500	Hours
Note: Winch coefficients for lifting Scaffolding are valid upto unsupported height of 3.66m. Beyond 3.66m, coefficients may be increased by 16.666% than the basic coefficients. for every 610 mm height.									

PLUMBING ITEMS

INDEX FOR PLUMBING ITEMS OF TELANAGANA BUILDINGS SOR 2025-26

Sl. No	SECTION	ITEM CODE	DESCRIPTION OF THE ITEM	FROM	TO
A	SECTION		S.W.G. PIPES & FITTINGS		
			(Landing cost - including material VAT, loading, cost of conveyance, unloading & stacking)		
I	SUB-SECTION	TBSP-A.I-01-09	SUPPLY & LAYING OF SWG PIPES		
II	SUB-SECTION	TBSP-A.II-01-63	S.W.G. FITTINGS		
III	SUB-SECTION	TBSP-A.III-01-05	LABOUR CHARGES FOR SWG WORKS		
B	SECTION		MANHOLES & INSPECTION CHAMBERS		
I	SUB-SECTION	TBSP-B.I-01-04	MANHOLES		
II	SUB-SECTION	TBSP-B.II-01-13	INSPECTION CHAMBERS		
III	SUB-SECTION	TBSP-B.III-01-01	LABOUR CHARGES FOR IC WORKS		
C	SECTION		CENTRIFUGAL CI PIPES & FITTINGS - IS: 1729		
I	SUB-SECTION	TBSP-C.I-01-06	SUPPLY & LAYING OF CAST IRON PIPES		
II	SUB-SECTION	TBSP-C.II-01-33	SUPPLYING & LAYING OF C.I. FITTINGS		
III	SUB-SECTION	TBSP-C.III-01-08	LABOUR CHARGES FOR CI PIPE WORKS		
D	SECTION		CENTRIFUGAL CI PIPES & FITTINGS - IS: 3989		
I	SUB-SECTION	TBSP-D.I-01-20	SUPPLY OF CENTRIFUGAL CI PIPES		
II	SUB-SECTION	TBSP-D.II-01-95	SUPPLY OF C.I. SPUN FITTINGS		
E	SECTION		VITREOUS CHINAWARE - SANITARY APPLIANCES		
I	SUB-SECTION	TBSP-E.I-01-07	INDIAN WATER CLOSETS		
II	SUB-SECTION	TBSP-E.II-01-06	FLOOR MOUNTED EWC		
III	SUB-SECTION	TBSP-E.III-01-03	WALL MOUNTED EWC		
IV	SUB-SECTION	TBSP-E.IV-01-03	CISTERNS FOR WATER CLOSETS		
V	SUB-SECTION	TBSP-E.V-01-02	PLASTIC SEATS FOR WATER CLOSETS		
VI	SUB-SECTION	TBSP-E.VI-01-16	WASH HAND BASINS		
VII	SUB-SECTION	TBSP-E.VII-01-05	URINALS		
VIII	SUB-SECTION	TBSP-E.VIII-01-12	LABOUR CHARGES FOR SANITARY WARE		
F	SECTION		CP FITTINGS - TAPS, FAUCETS & ACCESSORIES		
I	SUB-SECTION	TBSP-F.I-01-08	TAPS & FAUCETS - BIB TAPS		
II	SUB-SECTION	TBSP-F.II-01-09	TAPS & FAUCETS - PILLAR TAPS		
III	SUB-SECTION	TBSP-F.III-01-07	TAPS & FAUCETS - OTHER TAPS & SPOUTS		
IV	SUB-SECTION	TBSP-F.IV-01-07	STOP & ANGLE VALVES		
V	SUB-SECTION	TBSP-F.V-01-09	COMBINATION FAUCETS		
VI	SUB-SECTION	TBSP-F.VI-01-08	SHOWER ROSES & FITTINGS		
VII	SUB-SECTION	TBSP-F.VII-01-41	MISCELLANEOUS CP FITTINGS		
VIII	SUB-SECTION	TBSP-F.VIII-01-05	LABOUR CHARGES		
G	SECTION		G.I. PIPES & FITTINGS		
I	SUB-SECTION	TBSP-G.I-01-13	G.I. PIPES		
II	SUB-SECTION	TBSP-G.II-01-24	G.I. FITTINGS		
III	SUB-SECTION	TBSP-G.III-01-27	BRONZE (COPPER ALLOY) VALVES		
IV	SUB-SECTION	TBSP-G.IV-01-03	LABOUR CHARGES FOR G.I PLUMBING		
H	SECTION		PVC PIPES & FITTINGS		
I	SUB-SECTION	TBSP-H.I-01-64	PVC PIPES		
II	SUB-SECTION	TBSP-H.II-01-98	PVC FITTINGS		
III	SUB-SECTION	TBSP-H.III-01-10	PVC PLUMBING ACCESSORIES		
IV	SUB-SECTION	TBSP-H.IV-01-03	LABOUR CHARGES FOR PVC PLUMBING		
J	SECTION		MISCELLANEOUS ITEMS		
I	SUB-SECTION	TBSP-J.I-01-42	MISCELLANEOUS PLUMBING WORK ITEMS		
II	SUB-SECTION	TBSP-J.II-01-17	POLYETHYLENE-ALUMINIUM-POLYETHYLENE COMPOSITE PIPES		
III	SUB-SECTION	TBSP-J.III-01-218	OTHER VARIETIES OF PIPES		
IV	SUB-SECTION	TBSP-J.IV-01-34	CPVC PIPE ALONG WITH FITTINGS		

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		Note: All the prices of the materials are excluding taxes but including cost of loading, cost of conveyance, unloading & stacking		
A	SECTION	S.W.G. PIPES & FITTINGS		
I	SUB-SECTION	SUPPLY & LAYING OF S.W.G. PIPES		
1	TBSP-A.I-01	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. Including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	636.00
2	TBSP-A.I-02	Supplying, laying, jointing and testing 101.6 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1:5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0") depth and refilling with watering and tamping.	1 RM	548.00
3	TBSP-A.I-03	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	908.00
4	TBSP-A.I-04	Supplying, laying, jointing and testing 152.4 mm SWG SP-1 pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 914.4 mm (3'0")) depth and refilling with watering and tamping.	1 RM	805.00
5	TBSP-A.I-05	Providing 152.4 mm CC bed 1:2:4 Prop:using19.05mm gauge graded granite metal chips and cradling 101.6 mm SWG pipe line all round to have 75 mm nominal size thick cover over the sockets.	1 RM	175.00
6	TBSP-A.I-06	Providing 152.4 mm CC bed 1:2:4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 152.4 mm SWG pipe line all round to have 75 mm nominal size thick cover over the sockets.	1 RM	297.00
7	TBSP-A.I-07	Supplying & Laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	124.00
8	TBSP-A.I-08	Supplying & Laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	227.00
9	TBSP-A.I-09	Supplying & fixing 150 mm x 100 mm SWG gully traps conforming to ISI 651 & 4127 with C.I Grating & Cost. Brick masonry in CM 1:6 prop. Intermediate chamber and fitted with 304.8 mm x 288.6mm (12"x9") C.I Frame and hinged cover	Each	772.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
II	SUB-SECTION	S.W.G. PIPES (1m or above lengths)& FITTINGS		
10	TBSP-A.II-01	Supply of SWG SP-1 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	231.00
11	TBSP-A.II-02	Supply of SWG SP-1 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	400.00
12	TBSP-A.II-03	Supply of SWG SP-1 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	618.00
13	TBSP-A.II-04	Supply of SWG SP-1 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,130.00
14	TBSP-A.II-05	Supply of SWG SP-1 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,628.00
15	TBSP-A.II-06	Supply of SWG SP-1 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,215.00
16	TBSP-A.II-07	Supply of SWG SP-2 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	287.00
17	TBSP-A.II-08	Supply of SWG SP-2 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	425.00
18	TBSP-A.II-09	Supply of SWG SP-2 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	762.00
19	TBSP-A.II-10	Supply of SWG SP-2 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,196.00
20	TBSP-A.II-11	Supply of SWG SP-2 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,839.00
21	TBSP-A.II-12	Supply of SWG SP-2 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,382.00
22	TBSP-A.II-13	Supply of SWG SP-2 pipe conforming to ISI 651 - 16" dia (400 mm)	1 RM	2,744.00
23	TBSP-A.II-14	Supply of SWG SP-2 pipe conforming to ISI 651 - 18" dia (450 mm)	1 RM	3,502.00
24	TBSP-A.II-15	Supply of SWG SP-3 pipe conforming to ISI 651 - 4"dia(101.6mm)	1 RM	365.00
25	TBSP-A.II-16	Supply of SWG SP-3 pipe conforming to ISI 651 - 6"dia(152.4mm)	1 RM	529.00
26	TBSP-A.II-17	Supply of SWG SP-3 pipe conforming to ISI 651 - 8" dia(203.2mm)	1 RM	935.00
27	TBSP-A.II-18	Supply of SWG SP-3 pipe conforming to ISI 651 - 10" dia (254 mm)	1 RM	1,419.00
28	TBSP-A.II-19	Supply of SWG SP-3 pipe conforming to ISI 651 - 12" dia (300 mm)	1 RM	1,981.00
29	TBSP-A.II-20	Supply of SWG SP-3 pipe conforming to ISI 651 - 14" dia (350 mm)	1 RM	2,515.00
30	TBSP-A.II-21	Supply of SWG SP-2 pipe conforming to ISI 651 - 16" dia (400 mm)	1 RM	2,893.00
31	TBSP-A.II-22	Supply of SWG SP-3 pipe conforming to ISI 651 - 18" dia (450 mm)	1 RM	3,937.00
32	TBSP-A.II-23	Supply of SWG Bends conforming to IS standards -100 mm dia	Each	118.00
33	TBSP-A.II-24	Supply of SWG Bends conforming to IS standards -150 mm dia	Each	217.00
34	TBSP-A.II-25	Supply of SWG Bends conforming to IS standards -200 mm dia	Each	404.00
35	TBSP-A.II-26	Supply of SWG Bends conforming to IS standards -250 mm dia	Each	818.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
36	TBSP-A.II-27	Supply of SWG Bends conforming to IS standards -300 mm dia	Each	1,040.00
37	TBSP-A.II-28	Supply of SWG Bends conforming to IS standards -350 mm dia	Each	1,297.00
38	TBSP-A.II-29	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 100 x 100	Each	225.00
39	TBSP-A.II-30	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 100	Each	330.00
40	TBSP-A.II-31	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 150 x 150	Each	360.00
41	TBSP-A.II-32	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 100	Each	511.00
42	TBSP-A.II-33	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 150	Each	597.00
43	TBSP-A.II-34	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 200 x 200	Each	685.00
44	TBSP-A.II-35	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 100	Each	805.00
45	TBSP-A.II-36	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 150	Each	1,060.00
46	TBSP-A.II-37	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 200	Each	1,312.00
47	TBSP-A.II-38	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 250 x 250	Each	1,571.00
48	TBSP-A.II-39	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 100	Each	1,144.00
49	TBSP-A.II-40	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 150	Each	1,465.00
50	TBSP-A.II-41	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 200	Each	1,796.00
51	TBSP-A.II-42	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 250	Each	2,110.00
52	TBSP-A.II-43	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 300 x 300	Each	2,429.00
53	TBSP-A.II-44	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 100	Each	1,428.00
54	TBSP-A.II-45	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 150	Each	1,832.00
55	TBSP-A.II-46	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 200	Each	2,231.00
56	TBSP-A.II-47	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 250	Each	2,631.00
57	TBSP-A.II-48	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 300	Each	3,033.00
58	TBSP-A.II-49	Supply of SWG Junctions (T's & Y's) conforming to IS standards with length of barrel 60 cm for - 350 x 350	Each	3,431.00
59	TBSP-A.II-50	Supply of SWG Plugs conforming to IS standards for 100 mm dia	Each	45.00
60	TBSP-A.II-51	Supply of SWG Plugs conforming to IS standards for 150 mm dia	Each	84.00
61	TBSP-A.II-52	Supply of SWG Plugs conforming to IS standards for 200 mm dia	Each	155.00
62	TBSP-A.II-53	Supply of SWG Plugs conforming to IS standards for 250 mm dia	Each	267.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
63	TBSP-A.II-54	Supply of SWG Plugs conforming to IS standards for 300 mm dia	Each	422.00
64	TBSP-A.II-55	Supply of SWG Plugs conforming to IS standards for 350 mm dia	Each	527.00
65	TBSP-A.II-56	Supply of SWG Gully Traps (Round & Square) conforming to IS standards 150 x 100 mm	Each	324.00
66	TBSP-A.II-57	Supply of SWG Saddles conforming to IS standards 150 x 100mm	Each	239.00
67	TBSP-A.II-58	Supply of SWG Saddles conforming to IS standards 200 x 100mm	Each	404.00
68	TBSP-A.II-59	Supply of SWG Saddles conforming to IS standards 250 x 100mm	Each	655.00
69	TBSP-A.II-60	Supply of SWG Rubber Rings, glue & Fixing Charges conforming to IS standards 150mm	Each	50.00
70	TBSP-A.II-61	Supply of SWG Rubber Rings, glue & Fixing Charges conforming to IS standards 200mm	Each	73.00
71	TBSP-A.II-62	Supply of SWG Rubber Rings, glue & Fixing Charges conforming to IS standards 250mm	Each	97.00
72	TBSP-A.II-63	Supply of SWG Rubber Rings, glue & Fixing Charges conforming to IS standards 300mm	Each	160.00
III	SUB-SECTION	LABOUR CHARGES FOR SWG WORKS		
73	TBSP-A.III-01	Labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 914.4 mm (3'0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	359.00
74	TBSP-A.III-02	Labour charges only for laying, jointing and testing SWG pipes of any dia with airtight cement joints including excavation of trenches and socket pits in any soil up to 1524 mm (5'0") depth (except rock requiring blasting) and refilling with watering and tamping.	1 RM	447.00
75	TBSP-A.III-03	Labour charges only for laying 101.6 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	59.00
76	TBSP-A.III-04	Labour charges only for laying 152.4 mm SWG channels with cement mortar joints with suitable brick masonry for fixing the channels in position	1 RM	79.00
77	TBSP-A.III-05	Labour charges only for fixing and laying the SWG Junctions/ Plugs/ Bends of any dia with airtight cement joints as per standard practice	Each	51.00
B	SECTION	MANHOLES & INSPECTION CHAMBERS - AS PER - IS 4111 : Part 1 :1986		
I	SUB-SECTION	MANHOLES		

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
78	TBSP-B.I-01	Constructing 904.0 mm (3'0") dia solid block masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3prop;½"thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	8,888.00
79	TBSP-B.I-02	Constructing 904.0 mm (3'0") dia solid block masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using fly-ash blocks of 225 mm thick from approved source having a minimum crushing strength of 10 N/sq.mm including plastering with cement mortar 1:3prop;½"thickbothinsideand outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	14,419.00
80	TBSP-B.I-03	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 904 mm (3'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand,	Each	9,155.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.		
81	TBSP-B.I-04	Constructing 904.0 mm (3'0") dia brick masonry inspection chamber as per IS - 4111: Part-1:1986 with cement mortar (1:6) prop using 2nd Class Clay Bricks of 225 mm thick from approved source having a minimum crushing strength of 5 N/sq.mm including plastering with cement mortar 1:3 prop; ½" thick both inside and outside fitted with 20" dia RCC manhole covers and frames including excavating pits up to a depth of 1524 mm (5'-0") in all sorts of soils (excluding rock) and laying cement concrete (1:4:8) 150 mm thick using 40 mm HBG Metal and P.C.C. 1:2:4 benching and channel 100 mm thick as per Standard specification and including cost and conveyance of all materials like cement, sand, bricks, water etc., to site, cost of seigniorage charges on all materials and all incidental and operational, labour charges like mixing cement mortar, constructing masonry, lift charges, curing etc., complete for finished item of work as per Standard specification.	Each	14,895.00
II	SUB-SECTION	INSPECTION CHAMBERS & COVERS		
82	TBSP-B.II-01	Constructing 914.4 mm x 457.2 mm (3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 914.4 mm x 457.2 mm (3'0"x1'6") C.I frame and cover of 40 Kg.	Each	7,878.00
83	TBSP-B.II-02	Constructing 457.2 mm x 457.2 mm (1'6"x1'6") brick in CM 1:6 prop. Masonry. Inspection chamber up to 914.4 mm (3'0") and fitted with light weight 457.2 mm x 457.2 mm (1'6"x1'6") C.I frame and cover of 20 Kg.	Each	4,751.00
84	TBSP-B.II-03	Constructing Brick masonry chamber over the gully trap or peet valve and fitted with 304.8 x 228.6 mm size CI frame and hinged cover.	Each	590.00
85	TBSP-B.II-04	Constructing Brick masonry support for G.I pipe with C.M 304.8 x 228.6 x228.6 mm size including plastering and finishing etc. complete.	Each	97.00
86	TBSP-B.II-05	Supply & fixing RCC cover 22" dia with nominal reinforcement 3 " thick and hooks for lifting	Each	914.00
87	TBSP-B.II-06	Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	157.00
88	TBSP-B.II-07	Supplying & fixing CI Nahany trap grating	Each	27.00
89	TBSP-B.II-08	Supplying & fixing CI gully trap grating	Each	66.00
90	TBSP-B.II-09	Supplying & fixing 914.4 x 457.2 mm CI man hole frame and cover (light weight) 30 Kgs	Each	2,508.00
91	TBSP-B.II-10	Supplying & fixing 602 x 602 mm CI man hole frame and cover (light weight) 30 Kgs	Each	3,736.00
92	TBSP-B.II-11	Supplying & fixing CI steps for septic tank.	Each	84.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
93	TBSP-B.II-12	Supplying & fixing 50.8 cm dia C.I. Man hole frame & cover for 914.4 mm dia chamber (20 Kgs - Light weight)	Each	1,614.00
94	TBSP-B.II-13	Supplying & fixing 50.8 cm dia C.I. Man hole frame & cover for 914.4 mm dia chamber (Medium weight) as per IS:1726 - 40 Kgs	Each	3,331.00
III	SUB-SECTION	LABOUR CHARGES FOR IC WORKS		
95	TBSP-B.III-01	Making drainage connection from a drainage line in to an existing inspection chamber/ manhole including making a hole in to the chambers, placing necessary pipes in the connection and making good the junction in and out of the chambers including cost of necessary cement, sand and aggregate etc.,	Each	185.00
C	SECTION	C.I. PIPES & FITTINGS - AS PER - IS 1729:1979 (Materials shall be procured from the list of approved Brands/ Manufacturers/Suppliers)		
I	SUB-SECTION	SUPPLYING & LAYING OF C.I. PIPES		
96	TBSP-C.I-01	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 3"dia(75mm nominal size) Single Socket	1 RM	957.00
97	TBSP-C.I-02	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 4" dia (101.6mm) Single Socket	1 RM	1,251.00
98	TBSP-C.I-03	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 6" dia (152.4mm) Single Socket	1 RM	1,998.00
99	TBSP-C.I-04	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 3"dia(75mm nominal size) Double Socket	1 RM	1,043.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
100	TBSP-C.I-05	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 4" dia (101.6mm) Double Socket	1 RM	1,387.00
101	TBSP-C.I-06	Supplying and fixing of C.I. soil pipes ISI marked conforming to IS:1729-1979 of approved make with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar (1½:1) including fixing of M.S. clamps if necessary with required no. of Bombay nails etc., complete for 6" dia (152.4mm) Double Socket	1 RM	2,288.00
II	SUB-SECTION	SUPPLYING & LAYING OF C.I. FITTINGS		
102	TBSP-C.II-01	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (75 mm nominal size)	Each	373.00
103	TBSP-C.II-02	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6mm)	Each	470.00
104	TBSP-C.II-03	Supplying & fixing CI Plain bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	778.00
105	TBSP-C.II-04	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 3" dia (75 mm nominal size)	Each	460.00
106	TBSP-C.II-05	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 4" dia (101.6 mm)	Each	568.00
107	TBSP-C.II-06	Supplying & fixing CI Plug (Door) bends 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 6" dia (152.4 mm)	Each	1,232.00
108	TBSP-C.II-07	Supplying and fixing of 75 mm nominal size (3") CIS oil single junction with plug: conforming to IS:1729-1979 with cement caulked joints and fixing	Each	578.00
109	TBSP-C.II-08	Supplying and fixing of 101.6 mm (4") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	900.00
110	TBSP-C.II-09	Supplying and fixing of 152.4 mm (6") CI soil single junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,119.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
111	TBSP-C.II-10	Supplying and fixing of 75 mm nominal size (3") CIS oil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	488.00
112	TBSP-C.II-11	Supplying and fixing of 101.6 mm (4") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	665.00
113	TBSP-C.II-12	Supplying and fixing of 152.4 mm (6") CI soil plain single junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1,580.00
114	TBSP-C.II-13	Supplying and Fixing of 75 mm nominal size (3") CI soil Double junction with plug: conforming to IS:1729-1979 with cement caulked joints and fixing	Each	875.00
115	TBSP-C.II-14	Supplying and Fixing of 101.6 mm (4") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	1,063.00
116	TBSP-C.II-15	Supplying and Fixing of 152.4 mm (6") CI soil Double junction with plug : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,473.00
117	TBSP-C.II-16	Supplying and Fixing of 75 mm nominal size (3") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	760.00
118	TBSP-C.II-17	Supplying and Fixing of 101.6 mm (4") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	995.00
119	TBSP-C.II-18	Supplying and Fixing of 152.4 mm (6") CI soil plain Double junction : conforming to IS:1729-1979 with cement caulked joints and fixing	Each	2,315.00
120	TBSP-C.II-19	Supplying and Fixing of 75mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 76.20 mm (3") C.I. Pipe	Each	372.00
121	TBSP-C.II-20	Supplying and Fixing of 75mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 101.6 mm (4") C.I. Pipe	Each	518.00
122	TBSP-C.II-21	Supplying and Fixing of 75mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing -for 152.4 mm (6") C.I. Pipe	Each	1,125.00
123	TBSP-C.II-22	Supplying and Fixing of 115 mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 76.20 mm (3") C.I. Pipe	Each	443.00
124	TBSP-C.II-23	Supplying and Fixing of 115 mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 101.6 mm (4") C.I. Pipe	Each	587.00
125	TBSP-C.II-24	Supplying and Fixing of 115 mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing - for 152.4 mm (6") C.I. Pipe	Each	1,153.00
126	TBSP-C.II-25	Supplying and Fixing of 150 mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing for 76.20 mm (3") C.I. Pipe	Each	512.00
127	TBSP-C.II-26	Supplying and Fixing of 150 mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing for 101.6 mm (4") C.I. Pipe	Each	661.00
128	TBSP-C.II-27	Supplying and Fixing of 150 mm C.I. Offsets Ist quality conforming to IS:1729-1979 with cement caulked joints and fixing for 152.4 mm (6") C.I. Pipe	Each	1,337.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
129	TBSP-C.II-28	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 165 mm dia of weight not less than 5.5 Kgs	Each	672.00
130	TBSP-C.II-29	Supplying & fixing CI floor traps 1st quality ISI marked with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 100 mm (4") and grating size 100 mm dia of weight not less than 6 Kgs	Each	820.00
131	TBSP-C.II-30	Supplying & fixing CI floor traps 1st quality ISI marked conforming to IS:1729-1979 with C.P. Grating fixing with white cement as per site requirements with standard practice for nominal dia 75 mm (3") and grating size 100 mm dia of weight not less than 4.0 Kgs	Each	413.00
132	TBSP-C.II-31	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 76.20 mm (3") C.I. Pipe	Each	228.00
133	TBSP-C.II-32	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 101.6 mm (4") C.I. Pipe	Each	285.00
134	TBSP-C.II-33	Supplying & fixing CI Collars (double socket) 1st quality ISI marked conforming to IS:1729-1979 with cement caulked joints and fixing as per site requirements with standard practice for 152.4 mm (6") C.I. Pipe	Each	808.00
III	SUB-SECTION	LABOUR CHARGES FOR CI PIPE WORKS		
135	TBSP-C.III-01	Labour charges only for fixing of C.I. Single/ Double Socket soil pipes of any dia with cement caulked joints and fixing as per site requirements including painting black with Japan paint and fixing with necessary wooden blocks fixed in the masonry walls in cement mortar and including fixing of M.S. clamps if necessary with required nails	1 RM	350.00
136	TBSP-C.III-02	Labour charges only for fixing CI Plain/ Plug (Door) bends with cement caulked joints and fixing as per site requirements with standard practice	Each	113.00
137	TBSP-C.III-03	Labour charges only fixing CI soil single junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	142.00
138	TBSP-C.III-04	Labour charges only fixing CI soil Double junctions with cement caulked joints and fixing as per site requirements with standard practice	Each	152.00
139	TBSP-C.III-05	Labour charges only fixing CI soil Collars, Bends, Offsets etc., with cement caulked joints and fixing as per site requirements with standard practice	Each	69.00
140	TBSP-C.III-06	Labour charges only for fixing CI Nahany/ Floor traps with C.P. Grating fixing with white cement as per	Each	92.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		site requirements with standard practice		
141	TBSP-C.III-07	Boxing of Nahany traps in RCC floors	Each	295.00
142	TBSP-C.III-08	Boxing of W.C Traps in R.C.C floors	Each	590.00
D	SECTION	CENTRIFUGAL CAST IRON PIPES & FITTINGS AS PER IS: 3989 -1984		
I	SUB-SECTION	SUPPLY OF CENTRIFUGAL CI PIPES		
143	TBSP-D.I-01	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M)	Each	1,816.00
144	TBSP-D.I-02	100 mm dia CI (spun) soils Waste & Ventilating pipe(3M)	Each	2,416.00
145	TBSP-D.I-03	150 mm dia CI (spun) soils Waste & Ventilating pipe(3M)	Each	4,428.00
146	TBSP-D.I-04	75 mm dia CI (spun) soils Waste & Ventilating pipe (3 M) Double socket	Each	2,015.00
147	TBSP-D.I-05	100 mm dia CI (spun) soils Waste & Ventilating pipe(3 M) Double socket	Each	2,719.00
148	TBSP-D.I-06	75 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	1,633.00
149	TBSP-D.I-07	100 mm dia 9'-0" (2743.2 mm) CI (Spun) pipes	Each	2,180.00
150	TBSP-D.I-08	75 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1,462.00
151	TBSP-D.I-09	100 mm dia 8'-0" (2438.4 mm) CI (Spun) pipes	Each	1,942.00
152	TBSP-D.I-10	75 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1,190.00
153	TBSP-D.I-11	100 mm dia 6'-0" (1828.8 mm) CI (Spun) pipes	Each	1,550.00
154	TBSP-D.I-12	75 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1,251.00
155	TBSP-D.I-13	100 mm dia 6'-0" (1828.8 mm) Double Socket CI (Spun) pipes	Each	1,550.00
156	TBSP-D.I-14	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 50mm dia pipe	RM	773.00
157	TBSP-D.I-15	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 75mm dia pipe	RM	876.00
158	TBSP-D.I-16	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 100mm dia pipe	RM	1,072.00
159	TBSP-D.I-17	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 150mm dia pipe	RM	1,825.00
160	TBSP-D.I-18	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 200mm dia pipe	RM	3,010.00
161	TBSP-D.I-19	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of	RM	4,195.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 250mm dia pipe		
162	TBSP-D.I-20	Supplying and fixing of Hubless centrifugal C.I. soil pipes ISI marked conforming to IS:15095-2011 of approved make with rubber gasket and GI clamp and fixing as per site requirements with required no. of Bombay nails etc., complete for 300mm dia pipe	RM	5,452.00
II	SUB-SECTION	SUPPLY OF C.I. SPUN FITTINGS		
163	TBSP-D.II-01	75 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	434.00
164	TBSP-D.II-02	100 mm dia Cut pipes (pieces) 1 foot (304.8 mm) CI (Spun) fittings	Each	499.00
165	TBSP-D.II-03	75 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	623.00
166	TBSP-D.II-04	100 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	716.00
167	TBSP-D.II-05	150 mm dia Cut pipes (pieces) 1'.6" (457.2 mm) CI (Spun) fittings	Each	1,362.00
168	TBSP-D.II-06	75 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	857.00
169	TBSP-D.II-07	100 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	947.00
170	TBSP-D.II-08	150 mm dia Cut pipes (pieces) 2 feet (609.6 mm) CI (Spun) fittings	Each	1,705.00
171	TBSP-D.II-09	75 mm dia Cut pipes (pieces) 3 feet (914.4 mm) CI (Spun) fittings	Each	1,313.00
172	TBSP-D.II-10	100 mm dia Cut pipes (pieces) 3 feet (914.4 mm) CI (Spun) fittings	Each	1,771.00
173	TBSP-D.II-11	75 mm dia Cut pipes (pieces) 4 feet (1219.2 mm) CI (Spun) fittings	Each	1,443.00
174	TBSP-D.II-12	100 mm dia Cut pipes (pieces) 4 feet (1219.2 mm) CI (Spun) fittings	Each	2,162.00
175	TBSP-D.II-13	75 mm dia Plain Bend - CI (Spun) fittings	Each	449.00
176	TBSP-D.II-14	100 mm dia Plain Bend - CI (Spun) fittings	Each	526.00
177	TBSP-D.II-15	150 mm dia Plain Bend - CI (Spun) fittings	Each	1,252.00
178	TBSP-D.II-16	75 mm dia Door Bend - CI (Spun) fittings	Each	462.00
179	TBSP-D.II-17	100 mm dia Door Bend - CI (Spun) fittings	Each	599.00
180	TBSP-D.II-18	150 mm dia Door Bend - CI (Spun) fittings	Each	1,369.00
181	TBSP-D.II-19	75 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	449.00
182	TBSP-D.II-20	100 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	526.00
183	TBSP-D.II-21	150 mm dia Plain Bend 45 Degrees - CI (Spun) fittings	Each	1,252.00
184	TBSP-D.II-22	75 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	462.00
185	TBSP-D.II-23	100 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	599.00
186	TBSP-D.II-24	150 mm dia Door Bend 45 Degrees - CI (Spun) fittings	Each	1,369.00
187	TBSP-D.II-25	Horn Bend Plain 101.6 x 50 mm nominal size (4" x 2") 100 mm dia - CI (Spun) fittings	Each	909.00
188	TBSP-D.II-26	Horn Bend door 101.6 x 50 mm nominal size (4" x 2") 100 mm dia - CI (Spun) fittings	Each	1,060.00
189	TBSP-D.II-27	75 mm dia Heel Rest Bend - CI (Spun) fittings	Each	477.00
190	TBSP-D.II-28	100 mm dia Heel Rest Bend - CI (Spun) fittings	Each	609.00
191	TBSP-D.II-29	150 mm dia Heel Rest Bend - CI (Spun) fittings	Each	1,290.00
192	TBSP-D.II-30	75 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	599.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
193	TBSP-D.II-31	100 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	807.00
194	TBSP-D.II-32	150 mm dia Single Branch Plain "T" - CI (Spun) fittings	Each	1,664.00
195	TBSP-D.II-33	75 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	705.00
196	TBSP-D.II-34	100 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	937.00
197	TBSP-D.II-35	150 mm dia Single Branch Door "T" - CI (Spun) fittings	Each	1,758.00
198	TBSP-D.II-36	75 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	705.00
199	TBSP-D.II-37	100 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	937.00
200	TBSP-D.II-38	150 mm dia Single Branch plain "Y" - CI (Spun) fittings	Each	2,062.00
201	TBSP-D.II-39	75 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	774.00
202	TBSP-D.II-40	100 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	1,034.00
203	TBSP-D.II-41	150 mm dia Single Branch Door "Y" - CI (Spun) fittings	Each	2,222.00
204	TBSP-D.II-42	75 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	818.00
205	TBSP-D.II-43	100 mm dia Double Branch Plain "T" - CI (Spun) fittings	Each	1,100.00
206	TBSP-D.II-44	75 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	912.00
207	TBSP-D.II-45	100 mm dia Double Branch Door "T" - CI (Spun) fittings	Each	1,146.00
208	TBSP-D.II-46	75 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	912.00
209	TBSP-D.II-47	100 mm dia Double Branch Plain "Y" - CI (Spun) fittings	Each	1,146.00
210	TBSP-D.II-48	75 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	962.00
211	TBSP-D.II-49	100 mm dia Double Branch Door "Y" - CI (Spun) fittings	Each	1,245.00
212	TBSP-D.II-50	75 mm dia Shoe Bend - CI (Spun) fittings	Each	564.00
213	TBSP-D.II-51	100 mm dia Shoe Bend - CI (Spun) fittings	Each	660.00
214	TBSP-D.II-52	150 mm dia Shoe Bend - CI (Spun) fittings	Each	1,338.00
215	TBSP-D.II-53	75 mm dia Collar - CI (Spun) fittings	Each	388.00
216	TBSP-D.II-54	100 mm dia Collar - CI (Spun) fittings	Each	469.00
217	TBSP-D.II-55	150 mm dia Collar - CI (Spun) fittings	Each	962.00
218	TBSP-D.II-56	75 mm dia Cowl - CI (Spun) fittings	Each	342.00
219	TBSP-D.II-57	100 mm dia Cowl - CI (Spun) fittings	Each	388.00
220	TBSP-D.II-58	150 mm dia Cowl - CI (Spun) fittings	Each	866.00
221	TBSP-D.II-59	75 mm dia Offset 3" (75 mm nominal size) projection - CI (Spun) fittings	Each	495.00
222	TBSP-D.II-60	100 mm dia Offset 3" (75 mm nominal size) projection - CI (Spun) fittings	Each	599.00
223	TBSP-D.II-61	150 mm dia Offset 3" (75 mm nominal size) projection - CI (Spun) fittings	Each	1,208.00
224	TBSP-D.II-62	75 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	539.00
225	TBSP-D.II-63	100 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	705.00
226	TBSP-D.II-64	150 mm dia Offset 6" (152.4mm) projection - CI (Spun) fittings	Each	1,406.00
227	TBSP-D.II-65	75 mm dia Long Door Bend - CI (Spun) fittings	Each	1,134.00
228	TBSP-D.II-66	100 mm dia Long Door Bend - CI (Spun) fittings	Each	1,220.00
229	TBSP-D.II-67	75 mm dia Hand Hole pipe (Inspection pipe)	Each	653.00
230	TBSP-D.II-68	100 mm dia Hand Hole pipe (Inspection pipe)	Each	888.00
231	TBSP-D.II-69	150 mm dia Hand Hole pipe (Inspection pipe)	Each	1,183.00
232	TBSP-D.II-70	75 mm dia P Traps - CI (Spun) fittings	Each	705.00
233	TBSP-D.II-71	100 mm dia P Traps - CI (Spun) fittings	Each	967.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
234	TBSP-D.II-72	4" x 3" (101.6 mm x 76.2mm) P. Traps 100 mm dia - CI (Spun) fittings	Each	1,108.00
235	TBSP-D.II-73	4" x 3" (101.6 mm x 76.2mm) Vent Traps 100 mm dia - CI (Spun) fittings	Each	1,108.00
236	TBSP-D.II-74	4" x 3" (101.6 mm x 76.2mm) Reducer 75 mm dia - CI (Spun) fittings	Each	690.00
237	TBSP-D.II-75	6" x 4" (152.4 mm x101.6 mm) Reducer 75 mm dia - CI (Spun) fittings	Each	942.00
238	TBSP-D.II-76	3" x 2" (75 mm nominal size x 50 mm nominal size) plain T 75 mm dia - CI (Spun) fittings	Each	590.00
239	TBSP-D.II-77	3" x 2" (75 mm nominal size x 50 mm nominal size) Door T 75 mm dia - CI (Spun) fittings	Each	919.00
240	TBSP-D.II-78	3" x 2" (75 mm nominal size x 50 mm nominal size) Plain Y 75 mm dia - CI (Spun) fittings	Each	919.00
241	TBSP-D.II-79	3" x 2" (75 mm nominal size x 50 mm nominal size) Door Y 75 mm dia - CI (Spun) fittings	Each	919.00
242	TBSP-D.II-80	4" x 3" (101.6 mm x 76.2mm) Plain T 75 mm dia - CI (Spun) fittings	Each	919.00
243	TBSP-D.II-81	4" x 3" (101.6 mm x 76.2mm) Door T 75 mm dia - CI (Spun) fittings	Each	972.00
244	TBSP-D.II-82	4" x 3" (101.6 mm x 76.2mm) Plain Y 75 mm dia - CI (Spun) fittings	Each	972.00
245	TBSP-D.II-83	4" x 3" (101.6 mm x 76.2mm) Door Y 75 mm dia - CI (Spun) fittings	Each	1,038.00
246	TBSP-D.II-84	6" x 4" (152.4 mm x101.6 mm) Plain T 75 mm dia - CI (Spun) fittings	Each	1,359.00
247	TBSP-D.II-85	6" x 4" (152.4 mm x101.6 mm) Door T 75 mm dia - CI (Spun) fittings	Each	1,472.00
248	TBSP-D.II-86	6" x 4" (152.4 mm x101.6 mm) Plain Y 75 mm dia - CI (Spun) fittings	Each	1,558.00
249	TBSP-D.II-87	6" x 4" (152.4 mm x101.6 mm) Door Y 75 mm dia - CI (Spun) fittings	Each	1,902.00
250	TBSP-D.II-88	75 mm dia Plain " T" 27 " (685.8 mm) Special Types of Long Fittings	Each	1,972.00
251	TBSP-D.II-89	100 mm dia - Plain " T" 27 " (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,769.00
252	TBSP-D.II-90	75 mm dia Door "T" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,201.00
253	TBSP-D.II-91	100mm dia Door "T" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	3,042.00
254	TBSP-D.II-92	75 mm dia Plain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,201.00
255	TBSP-D.II-93	100mm dia Plain " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	3,042.00
256	TBSP-D.II-94	75 mm dia Door " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	2,454.00
257	TBSP-D.II-95	100mm dia Door " Y" 27" (685.8 mm) Special Types of Long CI (Spun) fittings	Each	3,340.00
E	SECTION	VITREOUS CHINWARE - SANITARY APPLIANCES as per IS:2556 - 2004 (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
I	SUB-SECTION	INDIAN WATER CLOSETS		
258	TBSP-E.I-01	Supplying & fixing approved make Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 580 mm Long	Each	1,703.00
259	TBSP-E.I-02	Supplying & fixing approved make Indian pattern white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 630 mm Long	Each	1,703.00
260	TBSP-E.I-03	Supplying & fixing approved make Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 580 mm x 440 mm	Each	2,275.00
261	TBSP-E.I-04	Supplying & fixing approved make Orissa Pan white glazed W.C 1st quality ISI marked conforming to IS:2556-Part-3-2004 with "P" or "S" trap: 630 mm x 450 mm	Each	2,275.00
262	TBSP-E.I-05	Supplying & fixing approved make porcelain foot rest for squatting I.W.C.(Rectangular pair)of sizes 250mm x 125 mm x 15 mm thick each foot rest 1st quality ISI marked conforming to IS:2556-Part-10:1974	Pair	273.00
263	TBSP-E.I-06	Providing Brick masonry seat for Orissa pan/ Indian W.C. using traditional common burnt clay bricks as per standard practice	Each	344.00
264	TBSP-E.I-07	Providing Cement Concrete Squatting plate for Orissa pan/ Indian W.C. in P.C.C. 1:2:4 as per standard practice	Each	104.00
II	SUB-SECTION	FLOOR MOUNTED EWC		
265	TBSP-E.II-01	Supplying and fixing approved make wash down European Water Closet of 1st quality conforming to IS:2556-Part-2-2004 of white glazed with 'P' trap	Each	2,022.00
266	TBSP-E.II-02	Supplying and fixing approved make wash down European Water Closet of 1st quality conforming to IS:2556-Part-2-2004 of white glazed with 'S' trap	Each	2,167.00
267	TBSP-E.II-03	Supply, Installation and commissioning approved make floor mounted Anglo Indian wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' or 'S' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: White Colour	Each	6,407.00
268	TBSP-E.II-04	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: White Colour	Each	12,360.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
269	TBSP-E.II-05	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 suit with 'P' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Coloured-Grade-I/Grade-II	Each	15,523.00
270	TBSP-E.II-06	Supply, Installation and commissioning approved make floor mounted Close Coupled wash down EWC conforming to IS:2556 (Part 8)-2004 with 'P' or 'S' trap with dual flush porcelain cistern fixed on wash down EWC with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap & 15 mm angle stop cock & 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects: Special Colour-Grade-III	Each	17,850.00
III	SUB-SECTION	WALL MOUNTED EWC		
271	TBSP-E.III-01	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all of approved make etc. complete for finished item of work in all respects: White colour	Each	11,695.00
272	TBSP-E.III-02	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all of approved make etc. complete for finished item of work in all respects: Coloured Grade-I&II	Each	16,062.00
273	TBSP-E.III-03	Supply, Installation and commissioning approved make wash down wall mounted EWC conforming to IS:2556 (Part 16)-2002 with 'P' or 'S' trap with concealed flush cistern fixed in wall with all internal parts of dual flush cistern, ultra solid seat cover of approved make with rubber buffer and cap all of approved make etc. complete for finished item of work in all respects: Special Coloured Grade-III	Each	19,813.00
IV	SUB-SECTION	CISTERNS FOR WATER CLOSETS		
274	TBSP-E.IV-01	Supplying & Fixing low down porcelain flushing tank with lid 10 Lit Capacity with internal components	Each	3,254.00
275	TBSP-E.IV-02	Supplying & Fixing internal cistern fittings for dual flush cisterns	Each	1,817.00
276	TBSP-E.IV-03	Supplying & Fixing ultra slim concealed flushing cistern of HDPE body and of size 460 x 450 x 80 mm with internal component for wall mounted Wash	Each	4,987.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		down WC		
V	SUB-SECTION	PLASTIC SEATS FOR WATER CLOSETS		
277	TBSP-E.V-01	Supplying and Fixing best Indian make plastic seat and lid for European water closets with rubber or plastic Buffers as per IS2548-1996	Each	1,326.00
278	TBSP-E.V-02	Supplying and Fixing best Indian make plastic soft closing seat and lid for European water closets with rubber or plastic Buffers as per IS 2548-1996	Each	1,765.00
VI	SUB-SECTION	WASH HAND BASINS		
279	TBSP-E.VI-01	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 660 x 460 mm - Single C.P. Pillar cock	Each	4,114.00
280	TBSP-E.VI-02	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Single C.P. Pillar cock	Each	3,019.00
281	TBSP-E.VI-03	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 630 x 450 mm - Double C.P. Pillar cock	Each	3,142.00
282	TBSP-E.VI-04	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Single C.P. Pillar cock	Each	2,412.00
283	TBSP-E.VI-05	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm	Each	2,802.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 550 x 400 mm - Double C.P. Pillar cock		
284	TBSP-E.VI-06	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Single C.P. Pillar cock	Each	1,592.00
285	TBSP-E.VI-07	Supplying & Fixing Indian make Flat Back Wash Hand Basin 1st quality conforming to IS:2556-Part-4:1972 with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block: 450 x 300 mm - Double C.P. Pillar cock	Each	2,108.00
286	TBSP-E.VI-08	Supplying & Fixing Indian make below counter Wash Hand Basin 1st quality with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979 and fitted with 15 mm nominal bore Chromium Plated Pillar Tap of 1st quality Indian make 400 grams Seiko/ Senior/ Nice/ Esso or equivalent complete with standard CI brackets including wooden block with single CP pillar cock	Each	4,386.00
287	TBSP-E.VI-09	Supplying & Fixing Indian make white glazed vitreous china porcelain sink conforming to IS:2556-Part-5-1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979: 600 x 400 x250	Each	5,128.00
288	TBSP-E.VI-10	Supplying & Fixing Indian make white glazed vitreous china porcelain sink conforming to IS:2556-Part-5-1994 on cantilever brackets with waste fittings like rubber plug, chain, 32 mm nominal size C.P. Fitting with parallel pipe thread conforming to IS:2963-1979: 750 x 450 x250	Each	5,766.00
289	TBSP-E.VI-11	Supplying & fixing oval shape basin white (520x410mm) parry or equivalent	Each	2,835.00
290	TBSP-E.VI-12	Supplying and Fixing Pedestal for Wash Hand Basin	Each	1,648.00
291	TBSP-E.VI-13	Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	7,802.00
292	TBSP-E.VI-14	Supplying & fixing SINGLE BOWL stainless steel sink	Each	5,761.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		size 24"x18"x8 " (609.6 x 457.2 x 203.2mm) 1 mm thick with accessories		
293	TBSP-E.VI-15	Supplying & fixing stainless steel sink size 20" x18" x 8 " (508x457.2x203.2mm) 1 mm thick with accessories	Each	5,233.00
294	TBSP-E.VI-16	S & F 609.6 x 457.2 x 254 mm RCC terrazzo finished sink (or constructed at site with 50.8mm thick) brass plug and chain including CI cantilever brackets	Each	844.00
VII	SUB-SECTION	URINALS		
295	TBSP-E.VII-01	Supplying & Fixing white glazed flat back Bowl urinals of size 440 mm x 265 mm x 315 mm with internal flushing rim fixed with screws complete Indian make conforming to IS:2556-1995	Each	1,134.00
296	TBSP-E.VII-02	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader fixed with screws complete Indian make : 410 x 265 x 305 mm	Each	3,590.00
297	TBSP-E.VII-03	Supplying & Fixing white glazed flat back half stall urinals 1st quality conforming to IS:2556-1995 with standard C.P. Spreader fixed with screws complete Indian make : 590 x 375 x 390 mm	Each	4,081.00
298	TBSP-E.VII-04	Supplying & fixing 4 " x 24 " (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	560.00
299	TBSP-E.VII-05	Supplying and Fixing Odorless, Waterless Urinal Commode, of size 600mm x 340mmx320 mm/470 mm x 356mm x 305mm made of Specially designed curvature profile and the non-stick ceramic Coating help to ensure maximum slippery index. All the urine or water which is poured, slip into cartridge and does not stick to urinal basin. The Cartridge works on a Uni-directional system i.e., It gets opened only For the amount of urine passed through and gets closed immediately. This ensures bad odor behind trap in the drainage system can't pass back into the lavatory/ restroom. Cartridge has been sealed for high durability With no leakage	Each	23,177.00
VIII	SUB-SECTION	LABOUR CHARGES FOR SANITARY WARE		
300	TBSP-E. VIII-01	Labour charges only for fixing Indian pattern W.C with "P" or "S" trap	Each	466.00
301	TBSP-E. VIII-02	Labour charges only Fixing Orissa pan W.C with "P" or "S" trap	Each	579.00
302	TBSP-E. VIII-03	Labour charges only for fixing porcelain foot rest for squatting I.W.C. (Rectangular pair)	Pair	108.00
303	TBSP-E. VIII-04	Labour charges only for fixing low down porcelain flushing tank with internal components	Each	810.00
304	TBSP-E. VIII-05	Labour charges only for fixing internal cistern fittings of any flushing tank	Each	403.00
305	TBSP-E. VIII-06	Labour charges only for fixing European Water Closet with 'P' or 'S' trap as per standard practice	Each	407.00
306	TBSP-E. VIII-07	Labour charges only for fixing plastic seat and lid for European water closet	Each	120.00
307	TBSP-E. VIII-08	Labour charges only for fixing Indian make Flat Back Wash Hand Basin with waste fittings like rubber plug, chain, 32	Each	579.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		mm nominal size C.P. Fitting Pillar Taps complete with standard CI brackets including wooden block		
308	TBSP-E. VIII-09	Labour charges only for fixing pedestal for wash hand basin	Each	213.00
309	TBSP-E. VIII-10	Labour charges only for fixing bottle trap to the wash hand basin	Each	82.00
310	TBSP-E. VIII-11	Labour charges only Fixing flat back Bowl/ Half stall urinals with fixing C.P. Spreader and screws complete	Each	233.00
311	TBSP-E. VIII-12	Labour charges only for fixing Vitreous china porcelain sinks with waste fittings, rubber plug, chain, cantilever brackets etc.	Each	579.00
F	SECTION	CPFITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	TAPS & FAUCETS - BIB TAPS		
312	TBSP-F.I-01	S&F of 15 mm brass body CP finish bib tap of not less than 300 grams weight screw type (full turn) with internal / external threaded connection conforming to IS 8931	Each	284.00
313	TBSP-F.I-02	S&F of 15 mm brass body CP finish bib tap of not less than 300 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931	Each	682.00
314	TBSP-F.I-03	S&F of 15 mm brass body premium variety Chromium Plated finish bib tap with wall flange of not less than 500 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931 and with 10 years warranty	Each	967.00
315	TBSP-F.I-04	S&F of 15 mm brass body premium variety Chromium Plated finish bib tap angular shape with wall flange of not less than 500 grams weight with quarter turn spindle with either internal or external threaded connection conforming to IS 8931 and with 10 years warranty	Each	1,360.00
316	TBSP-F.I-05	S&F of 15 mm brass body CP finish two way bib tap of not less than 400 grams weight with quarter turn spindle internal/ external threaded connection conforming to IS 8931	Each	973.00
317	TBSP-F.I-06	S&F of 15 mm brass body premium variety Chromium Plated finish two way bib tap with flange of not less than 500 grams weight with quarter turn spindle internal/ external threaded connection conforming to IS 8931 and with 10 years warranty	Each	1,249.00
318	TBSP-F.I-07	S&F of Chromium plated finish brass body quarter turn Bibcock cum Health Faucet with 1m long tube and wall hook with 10 years warranty	Each	3,636.00
319	TBSP-F.I-08	S&F of 15 mm brass body CP finish long body bib tap of not less than 400 grams weight with quarter turn spindle internal / external threaded connection conforming to IS 8931	Each	869.00
II	SUB-SECTION	TAPS & FAUCETS - PILLAR TAPS		
320	TBSP-F.II-01	S&F of 15 mm brass body CP finish pillar tap of not less than 300 grams weight screw type (full turn) conforming to IS 8931	Each	714.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
321	TBSP-F.II-02	S&F of 15 mm brass body CP finish pillar tap of not less than 500 grams weight quarter turn spindle conforming to IS 8931	Each	921.00
322	TBSP-F.II-03	S&F of 15 mm brass body Premium variety Chromium plated finish pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	939.00
323	TBSP-F.II-04	S&F of 15 mm brass body Premium variety Chromium plated finish long neck pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,249.00
324	TBSP-F.II-05	S&F of 15 mm brass body Premium variety Chromium plated finish single lever pillar cock with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,360.00
325	TBSP-F.II-06	S&F premium make Sensotronic sensor faucet for wash basin, and with 10 years warranty	Each	16,410.00
326	TBSP-F.II-07	S&F premium make Sensotronic concealed type flushing valve for urinal complete set with installation box with control cock, and with 10 years warranty	Each	16,410.00
327	TBSP-F.II-08	S&F premium make Auto closing system pillar cockforwashbasin,andwith10years warranty	Each	2,721.00
328	TBSP-F.II-09	S&F premium make Auto Closing system Bibcock, and with 10 years warranty	Each	2,854.00
III	SUB-SECTION	TAPS & FAUCETS - OTHER TAPS & SPOUTS		
329	TBSP-F.III-01	S&F of 15 mm brass body CP finish self closing tap push type conforming to IS 1711	Each	312.00
330	TBSP-F.III-02	S&F of 15 mm brass body CP finish self closing tap lift type conforming to IS1711	Each	274.00
331	TBSP-F.III-03	S&F of 15 mm brass body Premium variety Chromium plated finish Swan neck tap with right/left hand operating knob with aerator of not less than 500 grams weight quarter turn spindle conforming to IS 8931 and with a warranty of 10 years	Each	1,814.00
332	TBSP-F.III-04	S&F of 15 mm brass body CP finish wall mounted sink spout withconnecting legs & wall flanges swinging nozzle conforming to IS 8931 and with a warranty of 10 years	Each	2,607.00
333	TBSP-F.III-05	S&F of 15 mm brass body CP finish wall mounted sink spout with connecting legs & wall flanges fixed nozzle conforming to IS 8931 and with a warranty of 10years	Each	1,590.00
334	TBSP-F.III-06	S&F of 15 mm bath tub spout minimum 180 mm projection with diverter system	Each	1,480.00
335	TBSP-F.III-07	S&F of 15 mm bath tub spout with tip ton minimum 180 mm projection with diverter system	Each	1,992.00
IV	SUB-SECTION	STOP & ANGLE VALVES		
336	TBSP-F.IV-01	S & F 15 mm nominal size CP finish brass stop valve screw type with internal /external threaded conforming to IS 8931	Each	271.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
337	TBSP-F.IV-02	S & F 15 mm nominal size brass concealed stop valve screw type with internal /external threaded conforming to IS 8931	Each	289.00
338	TBSP-F.IV-03	S & F 15 mm nominal size CP finish brass angled stop valve screw type with internal /external threaded conforming to IS 8931	Each	277.00
339	TBSP-F.IV-04	S&F of 15 mm CP finish brass stop valve of not less than 400 grams weight quarter turn spindle with internal threaded conforming to IS 8931	Each	895.00
340	TBSP-F.IV-05	S&F of 15 mm CP finish brass concealed stop valve of not less than 400 grams weight quarter turn spindle conforming to IS 8931	Each	696.00
341	TBSP-F.IV-06	S&F of 15 mm CP finish brass concealed stop valve of not less than 400 grams weight with adjustable wall flange and quarter turn spindle conforming to IS 8931 and with 10 years warranty	Each	1,083.00
342	TBSP-F.IV-07	S&F of 15 mm brass angle stop valve of quarter turn spindle type of not less than 400 grams weight with internal threaded conforming to IS 8931	Each	697.00
V	SUB-SECTION	COMBINATION FAUCETS		
343	TBSP-F.V-01	S&F of 15 mm CP finish brass body wall mixer with hand shower with center distance 150 mm conforming to IS 8931	Each	3,162.00
344	TBSP-F.V-02	S&F of 15 mm CP finish brass body wall mixer conforming to IS 8931 with center distance 150 mm conforming to IS 8931	Each	2,440.00
345	TBSP-F.V-03	S&F of 15 mm premium variety Chromium plated finish brass body wall mixer with hand shower with a provision for over head shower with 115 mm long bend pipe on upper side, connecting legs & wall flanges conforming to IS 8931 with 10 years warranty	Each	4,139.00
346	TBSP-F.V-04	S&F of 15 mm brass forged body concealed diverter with regular flow	Each	3,826.00
347	TBSP-F.V-05	S&F of 15 mm brass forged body concealed diverter with high flow	Each	4,960.00
348	TBSP-F.V-06	S&F of 15 mm brass forged body concealed diverter forged body with 3 way in let	Each	4,757.00
349	TBSP-F.V-07	S&F of 15 mm central hole Chromium plated finish brass body basin mixer 450 mm long pipe for hot & cold water mixing conforming to IS 8931 and with 10 years warranty	Each	3,113.00
350	TBSP-F.V-08	S&F of 15 mm central hole Chromium plated finish brass body single lever basin mixer 450 mm long braided pipe for hot & cold water mixing conforming to IS 8931 and with 10 years warranty	Each	3,630.00
351	TBSP-F.V-09	S&F of 15 mm central hole Chromium plated finish brass body sink mixer with swinging cascade round shape spout (wall/ table mounted model) with connecting legs & wall flanges conforming to IS 8931 and with 10 years warranty	Each	3,733.00
VI	SUB-SECTION	SHOWER ROSES & FITTINGS		
352	TBSP-F.VI-01	S&F 15 mm nominal size 152.0 mm CP finish iron body shower rose	Each	222.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
353	TBSP-F.VI-02	S&F 15 mm nominal size 137.0 mm CP finish iron body shower rose	Each	212.00
354	TBSP-F.VI-03	S&F 15 mm nominal size 101.6 mm CP finish iron body shower rose	Each	202.00
355	TBSP-F.VI-04	S&F 15 mm nominal size CP finish shower rose 200 mm dia with CP finish flexible pipe	Each	661.00
356	TBSP-F.VI-05	S&F 15 mm nominal size CP finish brass over head shower arm of 450 mm long with 90 degree bend & wall flange suitable for rain shower	Each	1,400.00
357	TBSP-F.VI-06	S&F 15 mm nominal size Chromium plated finish brass over head shower arm of 450 mm long with 90 degree bend & wall flange suitable for rain shower and with 10 years warranty	Each	1,704.00
358	TBSP-F.VI-07	S&F 15 mm nominal size over head 5 flow round massage shower rose	Each	996.00
359	TBSP-F.VI-08	S&F 15 mm nominal size 5 flow hand shower with rubbit cleaning system and 1.5 m long flexible hose and wall hook.	Each	2,041.00
VII	SUB-SECTION	MISCELLANEOUS CP FITTINGS		
360	TBSP-F.VII-01	S&F of 15 mm Stainless steel flexible hose 1.0 m long for hand shower / health faucet with brass nuts	Each	297.00
361	TBSP-F.VII-02	S&F of 15 mm CP finish brass body health faucet gun	Each	248.00
362	TBSP-F.VII-03	S&F CP finish brass bottle trap 250 mm long with wall connection pipe & wall Flange	Each	1,083.00
363	TBSP-F.VII-04	S&F CP finish brass bottle trap 190mm long with wall connection pipe & wall Flange	Each	1,089.00
364	TBSP-F.VII-05	S&F PVC bottle trap with wall connection pipe	Each	171.00
365	TBSP-F.VII-06	S&F CP finish brass body 32 mm dia nominal size waste coupling with half/full thread & brass check nut conforming to IS 2963: 1979	Each	273.00
366	TBSP-F.VII-07	S&F CP finish brass body 32 mm dia nominal size waste coupling with half/ full thread & brass body check nut and chain & plug conforming to IS 2963: 1979	Each	297.00
367	TBSP-F.VII-08	S&F CP finish brass body 32 mm dia nominal size waste coupling doom type with half/ full thread & brass body check nut conforming to IS 2963: 1979	Each	349.00
368	TBSP-F.VII-09	S&F brass body CP spreader for urinals	Each	186.00
369	TBSP-F.VII-10	S&F CP finish steel towel rod of 600 mm long and 20 mm dia with brackets	Each	458.00
370	TBSP-F.VII-11	S&F CP finish brass towel rod 600 mm long and 20 mm dia with brackets	Each	1,220.00
371	TBSP-F.VII-12	S&F of Towel rod 24 " premium make powder coated stainless steel body with 10 years warranty	Each	3,669.00
372	TBSP-F.VII-13	S&F CP finish brass wall mounted towel ring	Each	705.00
373	TBSP-F.VII-14	S&F of Chromium plated finish stainless steel body Towel Ring with 10 years warranty	Each	1,141.00
374	TBSP-F.VII-15	S&F of powder coated brass body finish Towel ring premium make with 10 years warranty	Each	2,350.00
375	TBSP-F.VII-16	S&F of Chromium plated finish stainless steel body towel rail 24" with 10 years warranty	Each	1,840.00
376	TBSP-F.VII-17	S&F powder coated stainless steel body wall mounted towel rack 600 mm long	Each	3,851.00
377	TBSP-F.VII-18	S&F CP finish brass metal body single coat hook	Each	467.00
378	TBSP-F.VII-19	S&F CP finish brass robe hook	Each	366.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
379	TBSP-F.VII-20	Supply & Fixing Double coat hook with 10 years warranty	Each	856.00
380	TBSP-F.VII-21	S&F CP finish brass soap dish	Each	650.00
381	TBSP-F.VII-22	S&F Stainless steel liquid soap container wall mounted and bottle type	Each	519.00
382	TBSP-F.VII-23	S&F premium make wall mirror with provision for over head shower and 115 mm long bend pipe with wall flange and with 10 years warranty	Each	6,223.00
383	TBSP-F.VII-24	S&F premium make wall mirror with provision for over head shower and 115 mm long bend pipe with wall flange powder coated with 10 years warranty	Each	9,787.00
384	TBSP-F.VII-25	S&F of Chromium plated finish stainless steel body Toilet paper holder with 10 years warranty	Each	989.00
385	TBSP-F.VII-26	S&F Stainless steel 4" dia round Grating with frame for nahany or floor trap cover with or without hole	Each	74.00
386	TBSP-F.VII-27	S&F Stainless steel 5" square Grating with frame for nahany or floor trap cover with or without hole	Each	87.00
387	TBSP-F.VII-28	S&F Stainless steel 4" dia round Grating for nahany or floor trap cover with cockroach trap with or without hole	Each	189.00
388	TBSP-F.VII-29	S&F Stainless steel 5" square Grating for nahany or floor trap cover with cockroach trap with or without hole	Each	196.00
389	TBSP-F.VII-30	S&F brass body plumber union of size 31.75 mm dia with check nut	Each	80.00
390	TBSP-F.VII-31	S&F brass body plumber union of size 38.1 mm dia with check nut	Each	86.00
391	TBSP-F.VII-32	S&F 4" dia CP thimble pipe: 150 mm long	Each	470.00
392	TBSP-F.VII-33	S&F 4" dia CP thimble pipe: 220 mm long	Each	698.00
393	TBSP-F.VII-34	S&F 4" dia CP thimble pipe: 300 mm long	Each	935.00
394	TBSP-F.VII-35	S&F CP long bend	Each	397.00
395	TBSP-F.VII-36	S&F CP short bend	Each	200.00
396	TBSP-F.VII-37	Supply & fixing of LLC handle set 1st quality	Each	92.00
397	TBSP-F.VII-38	S&F premium make copper pipe 450 mm long with nuts & washers with 10 years warranty	Each	476.00
398	TBSP-F.VII-39	S&F premium make copper pipe 450 mm long with nuts & washers power colour coated and with 10 years warranty	Each	918.00
399	TBSP-F.VII-40	S&F of Chromium plated finish stainless steel body Tumbler holder with 10 years warranty	Each	1,235.00
400	TBSP-F.VII-41	S&F of Chromium plated finish stainless steel body Glass shelf 22" with 10 years warranty	Each	2,427.00
VII	SUB-SECTION	LABOUR CHARGES		
401	TBSP-F.VIII-01	Labour charges for fixing all types of CP Taps & faucets	Each	74.00
402	TBSP-F.VIII-02	Labour charges for fixing all types of CP Stop & Angle Valves	Each	142.00
403	TBSP-F.VIII-03	Labour charges for fixing all types of wall combination taps, mixers & diverters	Each	248.00
404	TBSP-F.VIII-04	Labour charges for fixing all types of miscellaneous CP fittings	Each	142.00
405	TBSP-F.VIII-05	Cleaning of water tanks, Sumps and PVC/RCC tank through 'T' clean process undertaking cleaning by using latest German state of art technology with	1000	104.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		High pressure Rotary Jet cleaning and usage of the most effective Anti-bacterial agents, which is Bio degradable and eco friendly in nature, UV radiation in following stages: 1. First stage of Mechanized dewatering, 2. Cleaning of wall and ceiling to the sump with high pressure rotary jet which dislodges the layer of dirt and algae, 3. Dirty water and sludge are removed by using sludge pump, 4. Removing dirt is again removed by using industrial vacuum, 5. Treatment of wall ceiling roof with anti bacterial liquid (which is bio degradable and eco friendly in nature), 6. Final important treatment is ultra violet radiation which kills suspended or floating bacteria(for sumps)		
G	SECTION	G.I. PIPES & FITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	G.I. PIPES		
406	TBSP-G.I-01	S& F 15 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	209.00
407	TBSP-G.I-02	S& F 20 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	241.00
408	TBSP-G.I-03	S& F 25 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	314.00
409	TBSP-G.I-04	S& F 32 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	435.00
410	TBSP-G.I-05	S& F 40 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	489.00
411	TBSP-G.I-06	S& F 50 mm Nominal Bore GI pipe Light Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	535.00
412	TBSP-G.I-07	S& F 15 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	230.00
413	TBSP-G.I-08	S& F 20 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	257.00
414	TBSP-G.I-09	S& F 25 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	336.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
415	TBSP-G.I-10	S& F 32 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	469.00
416	TBSP-G.I-11	S& F 40 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	526.00
417	TBSP-G.I-12	S& F 50 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 ISI mark with GI fittings including the cost of pipe & its fittings &labour charges complete	1 RM	564.00
418	TBSP-G.I-13	S & F 65 mm Nominal Bore GI pipe Medium Grade properties & weight as per IS 1239 with GI fittings such as elbows tees couplings, nipples, plugs including excavation for trenches and refilling the trenches complete except for GI bends union and GI connectors with checkout and socket Tata or Zenith make or equivalent.	1 RM	1,000.00
II	SUB-SECTION	G.I. FITTINGS		
419	TBSP-G.II-01	S& F GI union 15 mm nominal size 1st Quality	Each	53.00
420	TBSP-G.II-02	S& F GI union 20 mm nominal size 1st Quality	Each	63.00
421	TBSP-G.II-03	S& F GI union 25 mm nominal size 1st Quality	Each	94.00
422	TBSP-G.II-04	S& F GI union 30 mm nominal size 1st Quality	Each	116.00
423	TBSP-G.II-05	S& F GI union 40 mm nominal size 1st Quality	Each	139.00
424	TBSP-G.II-06	S& F GI union 50 mm nominal size 1st Quality	Each	172.00
425	TBSP-G.II-07	S& F GI connector 25 mm nominal size dia	Each	104.00
426	TBSP-G.II-08	S& F 15 mm nominal size GI 'T' A class 1st quality	Each	65.00
427	TBSP-G.II-09	S& F 30 mm nominal size dia GI bend 1st quality	Each	94.00
428	TBSP-G.II-10	S & F 30 mm nominal size dia GI 'T' 1st Quality	Each	93.00
429	TBSP-G.II-11	S & F 25 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	527.00
430	TBSP-G.II-12	S & F 20 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	433.00
431	TBSP-G.II-13	S & F 15 mm nominal size copper body float valve with PVC ball Indian make ISI mark	Each	282.00
432	TBSP-G.II-14	Supplying & fixing leather washers for 15 mm nominal size bib tap and stop cock	Each	6.00
433	TBSP-G.II-15	Supplying & fixing leather washers for 20 mm nominal size bib tap and stop cock	Each	8.00
434	TBSP-G.II-16	Supplying & Fixing 15 mm nominal size fibre washers	Each	8.00
435	TBSP-G.II-17	Supplying & Fixing 20 mm nominal size fibre washers	Each	8.00
436	TBSP-G.II-18	S & F 15 mm nominal size holder bat clamps	Each	17.00
437	TBSP-G.II-19	S & F 20 mm nominal size holder bat clamps	Each	24.00
438	TBSP-G.II-20	S & F 25 mm nominal size holder bat clamps	Each	33.00
439	TBSP-G.II-21	S & F 40 mm nominal size holder bat clamps	Each	39.00
440	TBSP-G.II-22	Supplying & fixing 15 mm nominal size GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	55.00
441	TBSP-G.II-23	Supplying & fixing 20 mm nominal size GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	79.00
442	TBSP-G.II-24	Supplying & fixing 25 mm nominal size GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	93.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
III	SUB-SECTION	BRONZE (COPPER ALLOY) VALVES		
443	TBSP-G.III-01	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-15mm NBSize	Each	722.00
444	TBSP-G.III-02	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-20mm NBSize	Each	971.00
445	TBSP-G.III-03	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-25mm NBSize	Each	1,396.00
446	TBSP-G.III-04	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-32mm NBSize	Each	2,120.00
447	TBSP-G.III-05	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-40mm NBSize	Each	2,859.00
448	TBSP-G.III-06	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-50mm NBSize	Each	4,194.00
449	TBSP-G.III-07	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-65mm NBSize	Each	6,472.00
450	TBSP-G.III-08	S & F Bronze Gate/ Globe valve as per IS - 778 Class - I, Indianmakeheavytype-80mm NBSize	Each	9,594.00
451	TBSP-G.III-09	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB Size	Each	533.00
452	TBSP-G.III-10	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	778.00
453	TBSP-G.III-11	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	1,215.00
454	TBSP-G.III-12	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1,781.00
455	TBSP-G.III-13	Supplying & fixing Bronze Horizontal Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	2,469.00
456	TBSP-G.III-14	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 15 mm NB Size	Each	501.00
457	TBSP-G.III-15	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 20 mm NB Size	Each	654.00
458	TBSP-G.III-16	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 25 mm NB Size	Each	987.00
459	TBSP-G.III-17	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 32 mm NB Size	Each	1,356.00
460	TBSP-G.III-18	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 40 mm NB Size	Each	1,640.00
461	TBSP-G.III-19	Supplying & fixing Bronze Vertical Check (Non return) Valve as per IS-778 I-class heavy duty - 50 mm NB Size	Each	2,600.00
462	TBSP-G.III-20	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 15 mm NB Size	Each	238.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
463	TBSP-G.III-21	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 20 mm NB Size	Each	342.00
464	TBSP-G.III-22	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 25 mm NB Size	Each	481.00
465	TBSP-G.III-23	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 32 mm NB Size	Each	850.00
466	TBSP-G.III-24	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 40 mm NB Size	Each	1,169.00
467	TBSP-G.III-25	S & F Bronze Ball valve with SS Ball and SS Spindle as per IS - Class - I, Indian make heavy type - 50 mm NB Size	Each	1,756.00
468	TBSP-G.III-26	S & F Bronze Compact pressure reducing valve (Screwed) as per IS - Class -I, Indian make heavy type- 15 mm NB Size	Each	1,525.00
469	TBSP-G.III-27	S & F Bronze Compact pressure reducing valve (Screwed) as per IS - Class -I, Indian make heavy type- 20 mm NB Size	Each	1,940.00
IV	SUB-SECTION	LABOUR CHARGES FOR G.I PLUMBING		
470	TBSP-G.IV-01	Taking branch water connection from the existing 25 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	240.00
471	TBSP-G.IV-02	Taking branch water connection from the existing 20 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	137.00
472	TBSP-G.IV-03	Taking branch water connection from the existing 15 mm nominal size GI pipe including cutting threading, etc., complete with fitting	Each	90.00
H	SECTION	PVC PIPES & FITTINGS (Materials shall be procured from the list of approved Brands/ Manufacturers/ Suppliers)		
I	SUB-SECTION	PVC PIPES		
473	TBSP-H.I-01	75 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	311.00
474	TBSP-H.I-02	90 mm dia 3 M single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	492.00
475	TBSP-H.I-03	110 mm dia 3 M Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	587.00
476	TBSP-H.I-04	40 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	253.00
477	TBSP-H.I-05	75 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	350.00
478	TBSP-H.I-06	90 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	557.00
479	TBSP-H.I-07	110 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 4	Each	682.00
480	TBSP-H.I-08	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	218.00
481	TBSP-H.I-09	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	337.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
482	TBSP-H.I-10	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	420.00
483	TBSP-H.I-11	75 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4Kg/sq.cm	Each	233.00
484	TBSP-H.I-12	90 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 4Kg/sq.cm	Each	359.00
485	TBSP-H.I-13	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	432.00
486	TBSP-H.I-14	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	162.00
487	TBSP-H.I-15	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	246.00
488	TBSP-H.I-16	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	297.00
489	TBSP-H.I-17	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	136.00
490	TBSP-H.I-18	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	200.00
491	TBSP-H.I-19	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	257.00
492	TBSP-H.I-20	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	84.00
493	TBSP-H.I-21	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	139.00
494	TBSP-H.I-22	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	172.00
495	TBSP-H.I-23	160 MM dia 3 M Double Socket PVC/SWR pipe - 4 Kg/sq.cm	Each	1,396.00
496	TBSP-H.I-24	75 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	525.00
497	TBSP-H.I-25	90 mm dia 3 M single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	844.00
498	TBSP-H.I-26	110 mm dia 3 M Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	1,002.00
499	TBSP-H.I-27	75 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	576.00
500	TBSP-H.I-28	90 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	909.00
501	TBSP-H.I-29	110 mm dia 3 M Kg/sq.cm Double Socket PVC/SWR pipe - 6	Each	1,107.00
502	TBSP-H.I-30	75 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	346.00
503	TBSP-H.I-31	90 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	535.00
504	TBSP-H.I-32	110 mm dia 1828.8 mm (6'-0") Single Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	637.00
505	TBSP-H.I-33	75 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 6Kg/sq.cm	Each	368.00
506	TBSP-H.I-34	90 mm dia 1828.8 mm (6'-0") Double /SWR pipe - 6Kg/sq.cm	Each	557.00
507	TBSP-H.I-35	110 mm dia 1828.8 mm (6'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	689.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
508	TBSP-H.I-36	75 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	251.00
509	TBSP-H.I-37	90 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	388.00
510	TBSP-H.I-38	110 mm dia 1219. mm (4'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	470.00
511	TBSP-H.I-39	75 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	216.00
512	TBSP-H.I-40	90 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	316.00
513	TBSP-H.I-41	110 mm dia 914.4mm (3'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	380.00
514	TBSP-H.I-42	75 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	141.00
515	TBSP-H.I-43	90 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	217.00
516	TBSP-H.I-44	110 mm dia 609.6mm (2'-0") Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	278.00
517	TBSP-H.I-45	160 mm dia 3 M Double Socket PVC/SWR pipe - 6 Kg/sq.cm	Each	2,281.00
		PVC-O PIPES		
518	TBSP-H.I-45	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 110mm	1 RM	798.00
519	TBSP-H.I-46	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 160mm	1 RM	1,121.00
520	TBSP-H.I-47	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 200mm	1 RM	1,570.00
521	TBSP-H.I-48	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 250mm	1 RM	2,121.00
522	TBSP-H.I-49	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 315mm	1 RM	2,746.00
523	TBSP-H.I-50	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-12.5 of dia 400mm	1 RM	4,265.00
524	TBSP-H.I-51	Providing and supplying in ISI mark rigid PVC o Class- s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 110mm	1 RM	950.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
525	TBSP-H.I-52	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 160mm	1 RM	1,420.00
526	TBSP-H.I-53	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 200mm	1 RM	1,915.00
527	TBSP-H.I-54	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 250mm	1 RM	2,537.00
528	TBSP-H.I-55	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 315mm	1 RM	3,244.00
529	TBSP-H.I-56	Providing and supplying in ISI mark rigid PVC o Class-s/s pipe (push on joints) pressure pipes confirming to IS specifications no. 16647-2017 inclusive cost of EDPM gasket seals on joints including all statutory duties of Class 500 PN-16 of dia 400mm	1 RM	4,963.00
530	TBSP-H.I-57	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992) SS Type A - 3M - 75mm dia	1 RM	578.00
531	TBSP-H.I-58	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992)SS Type A - 3M - 90mm dia	1 RM	798.00
532	TBSP-H.I-59	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992)SS Type A - 3M - 110mm dia	1 RM	1,075.00
533	TBSP-H.I-60	Supply and laying of UPVC SWR Ring fit pipe (as per IS 13592 -1992)SS Type A - 3M - 160mm dia	1 RM	2,321.00
534	TBSP-H.I-61	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992) SS Type A - 3M - 75mm dia	1 RM	564.00
535	TBSP-H.I-62	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992)SS Type A - 3M - 90mm dia	1 RM	781.00
536	TBSP-H.I-63	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992)SS Type A - 3M - 110mm dia	1 RM	1,028.00
537	TBSP-H.I-64	Supply and laying of UPVC SWR Self fit pipe (as per IS 13592 -1992)SS Type A - 3M - 160mm dia	1 RM	2,282.00
III	SUB-SECTION	PVC FITTINGS		
538	TBSP-H.II-01	Providing & Placing on Terrace (at all floor levels) polyethylene water storage tank with Double layer approved brand & manufacture with cover and suitable locking arrangement & making necessary holes for inlet & outlets and over flow pipes but without fittings & base support for tanks	1 Lit	11.00
539	TBSP-H.II-02	Supply of Plastic storage tank lid with hinges	Each	94.00
540	TBSP-H.II-03	Supply & Fixing 75 mm nominal size dia PVC elbow 1st quality	Each	59.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
541	TBSP-H.II-04	Supply & fixing 30 mm nominal size dia PVC flexible waste pipe of 914.4 mm length of Ist quality	Each	35.00
542	TBSP-H.II-05	Supply & Fixing 40 mm nominal size dia PVC solid waste pipe outlet	Each	112.00
543	TBSP-H.II-06	Supply & fixing Fancy PVC shelf including all fittings	Each	263.00
544	TBSP-H.II-07	Supply & fixing of PVC low level system with internal components & short bend: 10 Liters capacity Single Flush	Each	1,794.00
545	TBSP-H.II-08	Supply & fixing of PVC low level system with internal components & short bend: 10 liters capacity Dual Flush	Each	2,108.00
546	TBSP-H.II-09	Supply & fixing of PVC low level system with internal components & short bend: 8 Liters capacity single Flush	Each	1,016.00
547	TBSP-H.II-10	75 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	63.00
548	TBSP-H.II-11	90 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	87.00
549	TBSP-H.II-12	110 mm dia - Plain Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	104.00
550	TBSP-H.II-13	75 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	84.00
551	TBSP-H.II-14	90 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	117.00
552	TBSP-H.II-15	110 mm dia - Door Bend 87.5 Degree - UPVC/SWR Pipe fittings	Each	132.00
553	TBSP-H.II-16	75 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	49.00
554	TBSP-H.II-17	90 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	69.00
555	TBSP-H.II-18	110 mm dia - 45 Degree Bend - UPVC/SWR Pipe fittings	Each	87.00
556	TBSP-H.II-19	75 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	84.00
557	TBSP-H.II-20	90 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	121.00
558	TBSP-H.II-21	110 mm dia - Cleaning Pipe - UPVC/SWR Pipe fittings	Each	145.00
559	TBSP-H.II-22	75 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	74.00
560	TBSP-H.II-23	90 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	110.00
561	TBSP-H.II-24	110 mm dia - Single Tee - UPVC/SWR Pipe fittings	Each	133.00
562	TBSP-H.II-25	75 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	91.00
563	TBSP-H.II-26	90 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	133.00
564	TBSP-H.II-27	110 mm dia - Single Tee with Door - UPVC/SWR Pipe fittings	Each	159.00
565	TBSP-H.II-28	75 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	154.00
566	TBSP-H.II-29	90 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	224.00
567	TBSP-H.II-30	110 mm dia - Double Tee - UPVC/SWR Pipe fittings	Each	316.00
568	TBSP-H.II-31	75 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	244.00
569	TBSP-H.II-32	90 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	348.00
570	TBSP-H.II-33	110 mm dia - Double Tee with Door - UPVC/SWR Pipe fittings	Each	360.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
571	TBSP-H.II-34	75 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	92.00
572	TBSP-H.II-35	90 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	145.00
573	TBSP-H.II-36	110 mm dia - Single 'Y' - UPVC/SWR Pipe fittings	Each	167.00
574	TBSP-H.II-37	75 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	117.00
575	TBSP-H.II-38	90 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	183.00
576	TBSP-H.II-39	110 mm dia - Single 'Y' with Door - UPVC/SWR Pipe fittings	Each	210.00
577	TBSP-H.II-40	75 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	126.00
578	TBSP-H.II-41	90 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	194.00
579	TBSP-H.II-42	110 mm dia - Double 'Y' - UPVC/SWR Pipe fittings	Each	218.00
580	TBSP-H.II-43	75 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	162.00
581	TBSP-H.II-44	90 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	252.00
582	TBSP-H.II-45	110 mm dia - Double 'Y' with Door - UPVC/SWR Pipe fittings	Each	282.00
583	TBSP-H.II-46	75 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	45.00
584	TBSP-H.II-47	90 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	63.00
585	TBSP-H.II-48	110 mm dia - Coupler - UPVC/SWR Pipe fittings	Each	72.00
586	TBSP-H.II-49	90 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	74.00
587	TBSP-H.II-50	110 x 75 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	72.00
588	TBSP-H.II-51	90 x 110 mm dia - Reducer - UPVC/SWR Pipe fittings	Each	98.00
589	TBSP-H.II-52	63 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	14.00
590	TBSP-H.II-53	75 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	19.00
591	TBSP-H.II-54	90 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	22.00
592	TBSP-H.II-55	110 mm dia - Vent Cowl - UPVC/SWR Pipe fittings	Each	24.00
593	TBSP-H.II-56	40 mm dia - Pipe Clip - UPVC/SWR Pipe fittings - Pipe Clip - UPVC/SWR Pipe fittings	Each	16.00
594	TBSP-H.II-57	50 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	19.00
595	TBSP-H.II-58	63 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	19.00
596	TBSP-H.II-59	75 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	20.00
597	TBSP-H.II-60	90 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	22.00
598	TBSP-H.II-61	110 mm - Pipe Clip - UPVC/SWR Pipe fittings	Each	23.00
599	TBSP-H.II-62	160 mm dia - Pipe Clip - UPVC/SWR Pipe fittings	Each	45.00
600	TBSP-H.II-63	P' Trap (Small without Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	230.00
601	TBSP-H.II-64	P' Trap (Small with Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	254.00
602	TBSP-H.II-65	P' Trap (Big with Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	290.00
603	TBSP-H.II-66	P' Trap (Big without Air vent) 110 mm - UPVC/SWR Pipe fittings	Each	267.00
604	TBSP-H.II-67	Floor Trap (Bell Mouth) 110 mm - UPVC/SWR Pipe fittings	Each	278.00
605	TBSP-H.II-68	Bell Mouth Trap 7 " (177.8 mm) - UPVC/SWR Pipe fittings	Each	401.00
606	TBSP-H.II-69	4" (101.6 mm) Nahany Trap (Without Jali with inlet)UPVC/SWR Pipe fittings	Each	139.00
607	TBSP-H.II-70	3" (75 mm nominal size) Nahany Trap (without Jali without inlet)UPVC/SWR Pipe fittings	Each	108.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
608	TBSP-H.II-71	4" (101.6 mm) Nahany Trap (without inlet with out Jali)UPVC/SWR Pipe fittings	Each	133.00
609	TBSP-H.II-72	Mini Trap - UPVC/SWR Pipe fittings	Each	67.00
610	TBSP-H.II-73	3" (75 mm nominal size) Nahany Trap with Jali - UPVC/SWR Pipe fittings	Each	126.00
611	TBSP-H.II-74	4" (101.6 mm) multi floor trap with Jali- UPVC/SWR Pipe fittings	Each	177.00
612	TBSP-H.II-75	4" (101.6) multi floor trap with out Jali- UPVC/SWR Pipe fittings	Each	139.00
613	TBSP-H.II-76	Round Jali - UPVC/SWR Pipe fittings	Each	32.00
614	TBSP-H.II-77	Square tile &Jali - UPVC/SWR Pipe fittings	Each	49.00
615	TBSP-H.II-78	Pipe connector (with LIP ring) - UPVC/SWR Pipe fittings	Each	185.00
616	TBSP-H.II-79	Pipe connector (with out LIP ring) - UPVC/SWR Pipe fittings	Each	144.00
617	TBSP-H.II-80	4" (101.6 mm) Floor Trap - UPVC/SWR Pipe fittings	Each	170.00
618	TBSP-H.II-81	5" (127.mm) floor Trap - UPVC/SWR Pipe fittings	Each	180.00
619	TBSP-H.II-82	75 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	72.00
620	TBSP-H.II-83	90 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	80.00
621	TBSP-H.II-84	110 mm dia - Door cap - UPVC/SWR Pipe fittings	Each	92.00
622	TBSP-H.II-85	75 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	67.00
623	TBSP-H.II-86	90 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	77.00
624	TBSP-H.II-87	110 mm dia - Socket plug - UPVC/SWR Pipe fittings	Each	80.00
625	TBSP-H.II-88	75 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	13.00
626	TBSP-H.II-89	90 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	14.00
627	TBSP-H.II-90	110 mm dia - Rubber ring for Socket - UPVC/SWR Pipe fittings	Each	16.00
628	TBSP-H.II-91	75 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	14.00
629	TBSP-H.II-92	90 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	16.00
630	TBSP-H.II-93	110 mm dia - Door Socket - UPVC/SWR Pipe fittings	Each	19.00
631	TBSP-H.II-94	LIP ring 110 mm - UPVC/SWR Pipe fittings	Each	86.00
632	TBSP-H.II-95	110mm x 90 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	112.00
633	TBSP-H.II-96	160 mm x 110 mm - Internal Reducer - UPVC/SWR Pipe fittings	Each	274.00
634	TBSP-H.II-97	Providing & fixing (Placing at all height) SMC/GRP panel tanks for water storage confirming with IS:14399-1996 and material to be confirming as per IS:4249-1967 for fire retardant of required capacity of suitable size including fixing and assembling/erecting the tank complete as per direction of Engineer in charge. The tanks to be leak proof after installation and having the following specifications: Standard SMC panels pressed moulded UV stabilised made from sheet moulding compounds (SMC) composting of glass fibre and formulation of selected resin. The size of the panel should be: Roof panels: 1000 x 1000 x 75mm, 500 x 1000 x 75mm	1 Lit	16.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		Side panels: 500 x 1000 x 75mm, 1000 x 1000 x 75mm, 1000 x 1500 x 75mm & 1000 x 2000 x 75mm Bottom panels: Convex shape 1000 x 1000 x 75mm, 500 x 1000 x 75mm Drain panels: 1000 x 1000 x 75mm at the bottom for the complete drain of water Manhole panel dia. 700mm lockable lid of hot pressed moulded made out of SMC. Non-Toxic PVC foam sealant gasket sealant tape 75 x 3mm with the high level of resistance to ageing and superior recovery from compression. Fasteners utilized for the panel joints of bolts nuts M12x40mm & M12x45mm. External reinforcement C channel at every 1-meter of steel with anticorrosive paint and it is tie with top external tie roads (If tank height is more than 1 meter). Internal roof supports should be of FRP/GRP 5mm thick hollow square section. Air-vent dia 50/100mm with mosquito-proof mesh insect proof. Aluminium body water level indicator with clear tube type and brass nozzle. Internal FRP ladder with wall mounting arrangement inside. External G.I. ladder with complete fixing arrangement outside. Complete fixing of Inlet/Outlet/overflow/drain should be G.I. flange type with 9" long Nipple. (Note: Agency shall submit manufacturer guarantee certificate for 2 Years after completion of the work)		
635	TBSP-H.II-98	Providing & fixing (Placing at all height) SMC/GRP panel tanks for water storage confirming with IS:14399-1996 and material to be confirming as per IS:4249-1967 for fire retardant of required capacity of suitable size including fixing and assembling/erecting the tank complete as per direction of Engineer in charge. The tanks to be leak proof after installation and having the following specifications:Standard SMC panels pressed moulded UV stabilised made from sheet moulding compounds (SMC) composting of glass fibre and formulation of selected resin.The size of the panel should be:Roof panels: 1000 x 1000 x 75mm, 500 x 1000 x 75mmSide panels: 500 x 1000 x 75mm, 1000 x 1000 x 75mm, 1000 x 1500 x 75mm & 1000 x 2000 x 75mmBottom panels: Convex shape 1000 x 1000 x 75mm, 500 x 1000 x 75mmDrain panels: 1000 x 1000 x 75mm at the bottom for the complete drain of waterManhole panel dia. 700mm lockable lid of hot pressed moulded made out of SMC.Non-Toxic PVC foam sealant gasket sealant tape 75 x 3mm with the high level of resistance to ageing and superior recovery from compression.Fasteners utilized for the panel	1 Lit	18.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		joints of bolts nuts M12x40mm & M12x45mm.External reinforcement C channel at every 1-meter of steel with anticorrosive paint and it is tie with top external tie roads (If tank height is more than 1 meter).Internal roof supports should be of FRP/GRP 5mm thick hollow square section.Air-vent dia 50/100mm with mosquito-proof mesh insect proof.Aluminium body water level indicator with clear tube type and brass nozzle.Internal FRP ladder with wall mounting arrangement inside.External G.I. ladder with complete fixing arrangement outside.Complete fixing of Inlet/Outlet/overflow/drain should be G.I. flange type with 9" long Nipple. (Note: Agency shall submit manufacturer guarantee certificate for 2 Years after completion of the work)		
III	SUB-SECTION	PVC PLUMBING ACCESSORIES		
636	TBSP-H.III-01	Rubber Lubricant - 100 Grams	Each	39.00
637	TBSP-H.III-02	Rubber Lubricant - 250 Grams	Each	81.00
638	TBSP-H.III-03	Rubber Lubricant - 500 Grams	Each	145.00
639	TBSP-H.III-04	Rubber Lubricant - 1000 Grams	Each	267.00
640	TBSP-H.III-05	P' Trap with lip UPVC/SWR Pipe fittings	Each	363.00
641	TBSP-H.III-06	50 ml - Solvent Cement	Each	20.00
642	TBSP-H.III-07	100 ml - Solvent Cement	Each	33.00
643	TBSP-H.III-08	250 ml - Solvent Cement	Each	74.00
644	TBSP-H.III-09	500 ml - Solvent Cement	Each	143.00
645	TBSP-H.III-10	1000 ml - Solvent Cement	Each	278.00
IV	SUB-SECTION	LABOUR CHARGES FOR PVC PLUMBING		
646	TBSP-H.IV-01	Labour charges for laying, fixing and commissioning the PVC pipes including couplers/ bends/ tees etc. any diameter including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with solvent jointing as per standard practice	1 RM	110.00
647	TBSP-H.IV-02	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc. including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with welding the joint as per standard practice - up to 40 mm dia	1 RM	52.00
648	TBSP-H.IV-03	Labour charges for laying, joining, welding, fixing and commissioning the PPR pipes including all specials such as couplers/ bends/ tees etc. including fixing necessary fittings like bends, plugs, couplers, junctions, tees, etc. with welding the joint as per standard practice - above 40 mm dia	1 RM	83.00
J	SECTION	MISCELLANEOUS ITEMS		
I	SUB-SECTION	MISCELLANEOUS PLUMBING WORK ITEMS		
649	TBSP-J.I-01	Supplying & Fixing solder joints up to 50 mm nominal size dia	Each	72.00
650	TBSP-J.I-02	Supplying & Fixing solution joints up to 50.8 dia 1st quality.	Each	16.00
651	TBSP-J.I-03	Chiseling the stone masonry wall for fixing of wooden blocks including finishing as directed by the	Each	44.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		department		
652	TBSP-J.I-04	Chiseling the stone masonry wall and repairs as directed by the department.	1 Rm	202.00
653	TBSP-J.I-05	Chiseling the brick masonry wall and repairs as directed by the department.	1 Rm	44.00
654	TBSP-J.I-06	Painting the flushing tank with white enamel paint	Each	124.00
655	TBSP-J.I-07	S & F internal cistern fittings for PVC flush tank	Each	1,064.00
656	TBSP-J.I-08	Repairing and over hauling flushing tank	Each	133.00
657	TBSP-J.I-09	Removing and refixing W.C s	Each	344.00
658	TBSP-J.I-10	Removing and refixing wash hand basins of any size with fittings complete	Each	309.00
659	TBSP-J.I-11	Removing 15 mm nominal size GI pipe and refixing the same	Mr.	97.00
660	TBSP-J.I-12	Removing 20 mm nominal size GI pipe and refixing the same	Mr.	110.00
661	TBSP-J.I-13	Removing 25 mm nominal size GI pipe and refixing the same	Mr.	157.00
662	TBSP-J.I-14	Removing 40 mm nominal size GI pipe and refixing the same	Rm	201.00
663	TBSP-J.I-15	Removing 50 mm nominal size GI pipe and refixing the same	Rm	234.00
664	TBSP-J.I-16	Cleaning the W.C with acid and Vim powder	Each	66.00
665	TBSP-J.I-17	Cleaning the Urinal with acid and Vim power	Each	66.00
666	TBSP-J.I-18	Cleaning the wash basin with acid and Vim powder	Each	66.00
667	TBSP-J.I-19	Cleaning the E.W.C with acid and Vim power	Each	66.00
668	TBSP-J.I-20	Cutting holes in C.C; basement & repairs Labour charges only	Each	153.00
669	TBSP-J.I-21	Cutting holes in stone masonry &basement and repairs Labour charges only	Each	102.00
670	TBSP-J.I-22	Cutting holes in Brick masonry &repairs Labour charges only	Each	68.00
671	TBSP-J.I-23	Cutting holes in RCC slab floor & repairs Labour charges only	Each	102.00
672	TBSP-J.I-24	Supplying & Fixing NP chain rubber and plug for basin	Each	49.00
673	TBSP-J.I-25	S & F 25 mm nominal size dia& 609.6 mm long aluminum anodized towel rod with brackets and aluminum screws	Each	188.00
674	TBSP-J.I-26	S & F 19.04 mm dia& 609.6 mm long aluminum anodized towel rod with brackets and aluminum screws	Each	164.00
675	TBSP-J.I-27	S & F 609.6 mm long 127 mm wide plate glass shelf with superior quality aluminum railing complete with aluminum screws	Each	241.00
676	TBSP-J.I-28	S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	80.00
677	TBSP-J.I-29	Supplying & fixing 88.9 mm A.C cowls	Each	82.00
678	TBSP-J.I-30	Supplying & fixing A.C Cowl 63.5 mm dia	Each	57.00
679	TBSP-J.I-31	S & F 76.2 x 101.6 mm teak wood block complete	Each	32.00
680	TBSP-J.I-32	Supplying & Fixing 15 mm nominal size PVC connection with brass union nut C.P coated	Each	128.00
681	TBSP-J.I-33	Removing of 101.6 m or 75 mm nominal size CI pipe	1 RM	54.00
682	TBSP-J.I-34	Supplying & fixing 75 mm nominal size W.I clamps	Each	31.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
683	TBSP-J.I-35	Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457 .2 mm	Each	582.00
684	TBSP-J.I-36	Supplying & fixing GI pipe plug of size 15 mm nominal size dia	Each	14.00
685	TBSP-J.I-37	Supplying & fixing 20 mm dia GI plug	Each	19.00
686	TBSP-J.I-38	Supplying and fixing 40 mm nominal size dia of GI plug	Each	92.00
687	TBSP-J.I-39	Supplying & fixing 50 mm nominal size dia of GI PLUG	Each	140.00
688	TBSP-J.I-40	Supplying & fixing 75 mm nominal size dia of GI PLUG	Each	250.00
689	TBSP-J.I-41	Supplying and fixing Rectangular Mirror Frameless of size 457 .2 mm x 609.6 mm	Each	1,669.00
690	TBSP-J.I-42	Supplying and fixing Rectangular Mirror Frameless of size 609.6 mm x 914.4 mm	Each	3,225.00
III	SUB-SECTION	POLYETHYLENE-ALUMINIUM-POLYETHYLENE COMPOSITE PIPES		
691	TBSP-J.II-01	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 16 mm OD pipe	1 RM	180.00
692	TBSP-J.II-02	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 20 mm	1 RM	222.00
693	TBSP-J.II-03	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 25mm	1 RM	279.00
694	TBSP-J.II-04	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 32 mm	1 RM	373.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
695	TBSP-J.II-05	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc. : 40 mm	1 RM	488.00
696	TBSP-J.II-06	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete for external works including laying pipes, fixing in position, testing and commissioning etc:50mmODpipe	1 RM	621.00
697	TBSP-J.II-07	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 16 mm	1 RM	258.00
698	TBSP-J.II-08	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 20 mm	1 RM	310.00
699	TBSP-J.II-09	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 25mm	1 RM	382.00
700	TBSP-J.II-10	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers,	1 RM	501.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 32 mm		
701	TBSP-J.II-11	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 40 mm	1 RM	649.00
702	TBSP-J.II-12	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, , couplers, connectors etc. complete with MS Iron clamps at 1.0 M spacing including cutting, chasing walls, making good, laying pipes, fixing in position, testing and commissioning etc. 50 mm	1 RM	823.00
703	TBSP-J.II-13	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 16 mm	1 RM	214.00
704	TBSP-J.II-14	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 20 mm	1 RM	252.00
705	TBSP-J.II-15	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 25mm	1 RM	305.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
706	TBSP-J.II-16	S&F Polyethylene-Aluminum-Polyethylene (PE-AL-PE) composite pressure pipes conforming to IS-15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 32 mm	1 RM	392.00
707	TBSP-J.II-17	S&F Polyethylene-Aluminum-Polyethylene (PE-AL- PE) composite pressure pipes conforming to IS- 15450-2004 with UV stabilized, carbon black for hot & cold water supply, capable to withstand pressure up to 80 C including all special composite fittings, plastic & brass blend inserts for elbows, tees, reducers, couplers, connectors etc. complete including excavating trenches up to 1.0 M deep laying pipes, fixing in position, testing, refilling excavated earth and commissioning etc. 40 mm	1 RM	500.00
III	SUB-SECTION	OTHER VARIETIES OF PIPES		
708	TBSP-J.III-01	Supply of premium make CPVC Pipes of 15.90mm OD Pipe- SDR 13.5	1 RM	75.00
709	TBSP-J.III-02	Supply of premium make CPVC Pipes of 22.20mm OD Pipe- SDR 13.5	1 RM	115.00
710	TBSP-J.III-03	Supply of premium make CPVC Pipes of 28.60mm OD Pipe- SDR 13.5	1 RM	166.00
711	TBSP-J.III-04	Supply of premium make CPVC Pipes of 34.90mm OD Pipe- SDR 13.5	1 RM	267.00
712	TBSP-J.III-05	Supply of premium make CPVC Pipes of 41.30mm OD Pipe- SDR 13.5	1 RM	366.00
713	TBSP-J.III-06	Supply of premium make CPVC Pipes of 54.00mm OD Pipe- SDR 13.5	1 RM	602.00
714	TBSP-J.III-07	Supply of premium make CPVC Pipes of 15.90mm OD Pipe- SDR 11	1 RM	85.00
715	TBSP-J.III-08	Supply of premium make CPVC Pipes of 22.20mm OD Pipe- SDR 11	1 RM	125.00
716	TBSP-J.III-09	Supply of premium make CPVC Pipes of 28.60mm OD Pipe- SDR 11	1 RM	194.00
717	TBSP-J.III-10	Supply of premium make CPVC Pipes of 34.90mm OD Pipe- SDR 11	1 RM	316.00
718	TBSP-J.III-11	Supply of premium make CPVC Pipes of 41.30mm OD Pipe- SDR 11	1 RM	434.00
719	TBSP-J.III-12	Supply of premium make CPVC Pipes of 54.00mm OD Pipe- SDR 11	1 RM	722.00
720	TBSP-J.III-13	Supply of 20mm x 1.9mm PN 10/PPR pipe conforming to DIN Standards 8077/8078	1 RM	55.00
721	TBSP-J.III-14	Supply of 25mm x 2.3mm PN 10/PPR pipe conforming to DIN Standards 8077/8078	1 RM	82.00
722	TBSP-J.III-15	Supply of 32mm x 2.9mm PN 10/PPR pipe conforming to DIN Standards 8077/8079	1 RM	130.00
723	TBSP-J.III-16	Supply of 40mm x 3.7mm PN 10/PPR pipe conforming to DIN Standards 8077/8079	1 RM	201.00
724	TBSP-J.III-17	Supply of 50mm x 4.6mm PN 10/PPR pipe conforming to DIN Standards 8077/8080	1 RM	360.00
725	TBSP-J.III-18	Supply of 63mm x 5.8mm PN 10/PPR pipe conforming	1 RM	562.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		to DIN Standards 8077/8081		
726	TBSP-J.III-19	Supply of 75mm x 6.8mm PN 10/PPR pipe conforming to DIN Standards 8077/8082	1 RM	781.00
727	TBSP-J.III-20	Supply of 90mm x 8.2mm PN 10/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,070.00
728	TBSP-J.III-21	Supply of 110mm x 10mm PN 10/PPR pipe conforming to DIN Standards 8077/8084	1 RM	1,583.00
729	TBSP-J.III-22	Supply of 20mm x 2.8mm PN 16/PPR pipe conforming to DIN Standards 8077/8078	1 RM	75.00
730	TBSP-J.III-23	Supply of 25mm x 3.5mm PN 16/PPR pipe conforming to DIN Standards 8077/8078	1 RM	116.00
731	TBSP-J.III-24	Supply of 32mm x 4.4mm PN 16/PPR pipe conforming to DIN Standards 8077/8079	1 RM	183.00
732	TBSP-J.III-25	Supply of 40mm x 5.5mm PN 16/PPR pipe conforming to DIN Standards 8077/8079	1 RM	281.00
733	TBSP-J.III-26	Supply of 50mm x 6.9mm PN 16/PPR pipe conforming to DIN Standards 8077/8080	1 RM	500.00
734	TBSP-J.III-27	Supply of 63mm x 8.6mm PN 16/PPR pipe conforming to DIN Standards 8077/8081	1 RM	786.00
735	TBSP-J.III-28	Supply of 75mm x 10.3mm PN 16/PPR pipe conforming to DIN Standards 8077/8082	1 RM	1,110.00
736	TBSP-J.III-29	Supply of 90mm x 12.3mm PN 16/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,582.00
737	TBSP-J.III-30	Supply of 110mm x 15.1mm PN 16/PPR pipe conforming to DIN Standards 8077/8084	1 RM	2,368.00
738	TBSP-J.III-31	Supply of 20mm x 3.4mm PN 20/PPR pipe conforming to DIN Standards 8077/8078	1 RM	87.00
739	TBSP-J.III-32	Supply of 25mm x 4.2mm PN 20/PPR pipe conforming to DIN Standards 8077/8078	1 RM	132.00
740	TBSP-J.III-33	Supply of 32mm x 5.4mm PN 20/PPR pipe conforming to DIN Standards 8077/8079	1 RM	214.00
741	TBSP-J.III-34	Supply of 40mm x 6.7mm PN 20/PPR pipe conforming to DIN Standards 8077/8079	1 RM	327.00
742	TBSP-J.III-35	Supply of 50mm x 8.3mm PN 20/PPR pipe conforming to DIN Standards 8077/8080	1 RM	579.00
743	TBSP-J.III-36	Supply of 63mm x 10.5mm PN 20/PPR pipe conforming to DIN Standards 8077/8081	1 RM	910.00
744	TBSP-J.III-37	Supply of 75mm x 12.5mm PN 20/PPR pipe conforming to DIN Standards 8077/8082	1 RM	1,291.00
745	TBSP-J.III-38	Supply of 90mm x 15mm PN 20/PPR pipe conforming to DIN Standards 8077/8083	1 RM	1,753.00
746	TBSP-J.III-39	Supply of 110mm x 18.3mm PN 20/PPR pipe conforming to DIN Standards 8077/8084	1 RM	2,759.00
747	TBSP-J.III-40	Supply of 20mm PPR Socket conforming to DIN Standards 8077/8084	Each	14.00
748	TBSP-J.III-41	Supply of 25mm PPR Socket conforming to DIN Standards 8077/8085	Each	19.00
749	TBSP-J.III-42	Supply of 32mm PPR Socket conforming to DIN Standards 8077/8086	Each	24.00
750	TBSP-J.III-43	Supply of 40mm PPR Socket conforming to DIN Standards 8077/8087	Each	43.00
751	TBSP-J.III-44	Supply of 50mm PPR Socket conforming to DIN Standards 8077/8088	Each	80.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
752	TBSP-J.III-45	Supply of 63mm PPR Socket conforming to DIN Standards 8077/8089	Each	152.00
753	TBSP-J.III-46	Supply of 75mm PPR Socket conforming to DIN Standards 8077/8090	Each	228.00
754	TBSP-J.III-47	Supply of 90mm PPR Socket conforming to DIN Standards 8077/8091	Each	435.00
755	TBSP-J.III-48	Supply of 110mm PPR Socket conforming to DIN Standards 8077/8092	Each	774.00
756	TBSP-J.III-49	Supply of 32mm PPR Core Flange conforming to DIN Standards 8077/8086	Each	48.00
757	TBSP-J.III-50	Supply of 40mm PPR Core Flange conforming to DIN Standards 8077/8087	Each	77.00
758	TBSP-J.III-51	Supply of 50mm PPR Core Flange conforming to DIN Standards 8077/8088	Each	98.00
759	TBSP-J.III-52	Supply of 63mm PPR Core Flange conforming to DIN Standards 8077/8089	Each	156.00
760	TBSP-J.III-53	Supply of 75mm PPR Core Flange conforming to DIN Standards 8077/8090	Each	182.00
761	TBSP-J.III-54	Supply of 90mm PPR Core Flange conforming to DIN Standards 8077/8091	Each	458.00
762	TBSP-J.III-55	Supply of 110mm PPR Core Flange conforming to DIN Standards 8077/8092	Each	592.00
763	TBSP-J.III-56	Supply of 20mm PPR Elbow conforming to DIN Standards 8077/8084	Each	22.00
764	TBSP-J.III-57	Supply of 25mm PPR Elbow conforming to DIN Standards 8077/8085	Each	25.00
765	TBSP-J.III-58	Supply of 32mm PPR Elbow conforming to DIN Standards 8077/8086	Each	49.00
766	TBSP-J.III-59	Supply of 40mm PPR Elbow conforming to DIN Standards 8077/8087	Each	85.00
767	TBSP-J.III-60	Supply of 50mm PPR Elbow conforming to DIN Standards 8077/8088	Each	158.00
768	TBSP-J.III-61	Supply of 63mm PPR Elbow conforming to DIN Standards 8077/8089	Each	307.00
769	TBSP-J.III-62	Supply of 75mm PPR Elbow conforming to DIN Standards 8077/8090	Each	494.00
770	TBSP-J.III-63	Supply of 90mm PPR Elbow conforming to DIN Standards 8077/8091	Each	917.00
771	TBSP-J.III-64	Supply of 110mm PPR Elbow conforming to DIN Standards 8077/8092	Each	1,699.00
772	TBSP-J.III-65	Supply of 20mm PPR Tee conforming to DIN Standards 8077/8084	Each	20.00
773	TBSP-J.III-66	Supply of 25mm PPR Tee conforming to DIN Standards 8077/8085	Each	35.00
774	TBSP-J.III-67	Supply of 32mm PPR Tee conforming to DIN Standards 8077/8086	Each	58.00
775	TBSP-J.III-68	Supply of 40mm PPR Tee conforming to DIN Standards 8077/8087	Each	103.00
776	TBSP-J.III-69	Supply of 50mm PPR Tee conforming to DIN Standards 8077/8088	Each	181.00
777	TBSP-J.III-70	Supply of 63mm PPR Tee conforming to DIN Standards 8077/8089	Each	363.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
778	TBSP-J.III-71	Supply of 75mm PPR Tee conforming to DIN Standards 8077/8090	Each	706.00
779	TBSP-J.III-72	Supply of 90mm PPR Tee conforming to DIN Standards 8077/8091	Each	1,025.00
780	TBSP-J.III-73	Supply of 110mm PPR Tee conforming to DIN Standards 8077/8092	Each	1,773.00
781	TBSP-J.III-74	Supply of 20mm PPR End Cap conforming to DIN Standards 8077/8084	Each	11.00
782	TBSP-J.III-75	Supply of 25mm PPR End Cap conforming to DIN Standards 8077/8085	Each	14.00
783	TBSP-J.III-76	Supply of 32mm PPR End Cap conforming to DIN Standards 8077/8086	Each	24.00
784	TBSP-J.III-77	Supply of 40mm PPR End Cap conforming to DIN Standards 8077/8087	Each	43.00
785	TBSP-J.III-78	Supply of 50mm PPR End Cap conforming to DIN Standards 8077/8088	Each	73.00
786	TBSP-J.III-79	Supply of 63mm PPR End Cap conforming to DIN Standards 8077/8089	Each	152.00
787	TBSP-J.III-80	Supply of 75mm PPR End Cap conforming to DIN Standards 8077/8090	Each	252.00
788	TBSP-J.III-81	Supply of 90mm PPR End Cap conforming to DIN Standards 8077/8091	Each	399.00
789	TBSP-J.III-82	Supply of 110mm PPR End Cap conforming to DIN Standards 8077/8092	Each	788.00
790	TBSP-J.III-83	Supply of 25mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	17.00
791	TBSP-J.III-84	Supply of 32mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	25.00
792	TBSP-J.III-85	Supply of 32mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	24.00
793	TBSP-J.III-86	Supply of 40mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	44.00
794	TBSP-J.III-87	Supply of 40mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	43.00
795	TBSP-J.III-88	Supply of 40mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	42.00
796	TBSP-J.III-89	Supply of 50mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	63.00
797	TBSP-J.III-90	Supply of 50mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	65.00
798	TBSP-J.III-91	Supply of 50mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	66.00
799	TBSP-J.III-92	Supply of 50mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	66.00
800	TBSP-J.III-93	Supply of 63mm x 20mm PPR Reducer conforming to DIN Standards 8077/8092	Each	141.00
801	TBSP-J.III-94	Supply of 63mm x 25mm PPR Reducer conforming to DIN Standards 8077/8092	Each	141.00
802	TBSP-J.III-95	Supply of 63mm x 32mm PPR Reducer conforming to DIN Standards 8077/8092	Each	142.00
803	TBSP-J.III-96	Supply of 63mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	142.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
804	TBSP-J.III-97	Supply of 63mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	143.00
805	TBSP-J.III-98	Supply of 75mm x 40mm PPR Reducer conforming to DIN Standards 8077/8092	Each	207.00
806	TBSP-J.III-99	Supply of 75mm x 50mm PPR Reducer conforming to DIN Standards 8077/8092	Each	209.00
807	TBSP-J.III-100	Supply of 75mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	262.00
808	TBSP-J.III-101	Supply of 90mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	500.00
809	TBSP-J.III-102	Supply of 90mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	530.00
810	TBSP-J.III-103	Supply of 110mm x 63mm PPR Reducer conforming to DIN Standards 8077/8092	Each	667.00
811	TBSP-J.III-104	Supply of 110mm x 75mm PPR Reducer conforming to DIN Standards 8077/8092	Each	777.00
812	TBSP-J.III-105	Supply of 110mm x 90mm PPR Reducer conforming to DIN Standards 8077/8092	Each	837.00
813	TBSP-J.III-106	Supply of 25mm x 20mm x 25mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	42.00
814	TBSP-J.III-107	Supply of 32mm x 25mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	71.00
815	TBSP-J.III-108	Supply of 32mm x 20mm x 32mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	72.00
816	TBSP-J.III-109	Supply of 40mm x 20mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	115.00
817	TBSP-J.III-110	Supply of 40mm x 25mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	116.00
818	TBSP-J.III-111	Supply of 40mm x 32mm x 40mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	120.00
819	TBSP-J.III-112	Supply of 50mm x 20mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	164.00
820	TBSP-J.III-113	Supply of 50mm x 25mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	166.00
821	TBSP-J.III-114	Supply of 50mm x 32mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	171.00
822	TBSP-J.III-115	Supply of 50mm x 40mm x 50mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	172.00
823	TBSP-J.III-116	Supply of 63mm x 20mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	471.00
824	TBSP-J.III-117	Supply of 63mm x 25mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	475.00
825	TBSP-J.III-118	Supply of 63mm x 32mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	481.00
826	TBSP-J.III-119	Supply of 63mm x 40mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	487.00
827	TBSP-J.III-120	Supply of 63mm x 50mm x 63mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	495.00
828	TBSP-J.III-121	Supply of 75mm x 50mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	665.00
829	TBSP-J.III-122	Supply of 75mm x 63mm x 75mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	676.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
830	TBSP-J.III-123	Supply of 90mm x 50mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	894.00
831	TBSP-J.III-124	Supply of 90mm x 63mm x 90mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	951.00
832	TBSP-J.III-125	Supply of 110mm x 75mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1,620.00
833	TBSP-J.III-126	Supply of 110mm x 90mm x 110mm PPR Reducer Tee conforming to DIN Standards 8077/8092	Each	1,684.00
834	TBSP-J.III-127	Supply of 20mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	127.00
835	TBSP-J.III-128	Supply of 25mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	130.00
836	TBSP-J.III-129	Supply of 25mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	226.00
837	TBSP-J.III-130	Supply of 32mm x ½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	229.00
838	TBSP-J.III-131	Supply of 32mm x ¾" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	239.00
839	TBSP-J.III-132	Supply of 32mm x 1" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	365.00
840	TBSP-J.III-133	Supply of 40mm x 1¼" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	538.00
841	TBSP-J.III-134	Supply of 50mm x 1½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	752.00
842	TBSP-J.III-135	Supply of 63mm x 2" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	999.00
843	TBSP-J.III-136	Supply of 75mm x 2½" PPR Female Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1,925.00
844	TBSP-J.III-137	Supply of 20mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	195.00
845	TBSP-J.III-138	Supply of 25mm x ½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	201.00
846	TBSP-J.III-139	Supply of 25mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	292.00
847	TBSP-J.III-140	Supply of 32mm x ¾" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	307.00
848	TBSP-J.III-141	Supply of 32mm x 1" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	567.00
849	TBSP-J.III-142	Supply of 40mm x 1¼" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	664.00
850	TBSP-J.III-143	Supply of 50mm x 1½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	926.00
851	TBSP-J.III-144	Supply of 63mm x 2" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	1,425.00
852	TBSP-J.III-145	Supply of 75mm x 2½" PPR Male Threaded Adaptor conforming to DIN Standards 8077/8092	Each	2,278.00
853	TBSP-J.III-146	Supply of 20mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	134.00
854	TBSP-J.III-147	Supply of 25mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	142.00
855	TBSP-J.III-148	Supply of 25mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	217.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
856	TBSP-J.III-149	Supply of 32mm x ½" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	209.00
857	TBSP-J.III-150	Supply of 32mm x ¾" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	243.00
858	TBSP-J.III-151	Supply of 32mm x 1" PPR Female Threaded Elbow conforming to DIN Standards 8077/8092	Each	402.00
859	TBSP-J.III-152	Supply of 20mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	201.00
860	TBSP-J.III-153	Supply of 25mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	221.00
861	TBSP-J.III-154	Supply of 25mm x ¾" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	291.00
862	TBSP-J.III-155	Supply of 32mm x ½" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	281.00
863	TBSP-J.III-156	Supply of 32mm x 1" PPR Male Threaded Elbow conforming to DIN Standards 8077/8092	Each	603.00
864	TBSP-J.III-157	Supply of 20mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	131.00
865	TBSP-J.III-158	Supply of 25mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	143.00
866	TBSP-J.III-159	Supply of 25mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	239.00
867	TBSP-J.III-160	Supply of 32mm x ½" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	251.00
868	TBSP-J.III-161	Supply of 32mm x ¾" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	281.00
869	TBSP-J.III-162	Supply of 32mm x 1" PPR Female Threaded Tee conforming to DIN Standards 8077/8092	Each	393.00
870	TBSP-J.III-163	Supply of 20mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	202.00
871	TBSP-J.III-164	Supply of 25mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	217.00
872	TBSP-J.III-165	Supply of 25mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	311.00
873	TBSP-J.III-166	Supply of 32mm x ½" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	316.00
874	TBSP-J.III-167	Supply of 32mm x ¾" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	335.00
875	TBSP-J.III-168	Supply of 32mm x 1" PPR Male Threaded Tee conforming to DIN Standards 8077/8092	Each	615.00
876	TBSP-J.III-169	Supply of 20mm x ½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	519.00
877	TBSP-J.III-170	Supply of 25mm x ¾" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	777.00
878	TBSP-J.III-171	Supply of 32mm x 1" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1,035.00
879	TBSP-J.III-172	Supply of 40mm x 1¼" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	1,451.00
880	TBSP-J.III-173	Supply of 50mm x 1½" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	2,331.00
881	TBSP-J.III-174	Supply of 63mm x 2" PPR Female Threaded Union conforming to DIN Standards 8077/8092	Each	3,699.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
882	TBSP-J.III-175	Supply of 20mm x ½” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	595.00
883	TBSP-J.III-176	Supply of 25mm x ¾” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	790.00
884	TBSP-J.III-177	Supply of 32mm x 1” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	1,035.00
885	TBSP-J.III-178	Supply of 40mm x 1¼” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	1,294.00
886	TBSP-J.III-179	Supply of 50mm x 1½” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	2,457.00
887	TBSP-J.III-180	Supply of 63mm x 2” PPR Male Threaded Union conforming to DIN Standards 8077/8092	Each	4,139.00
888	TBSP-J.III-181	Supply of 20mm PPR Union conforming to DIN Standards 8077/8092	Each	116.00
889	TBSP-J.III-182	Supply of 25mm PPR Union conforming to DIN Standards 8077/8092	Each	133.00
890	TBSP-J.III-183	Supply of 32mm PPR Union conforming to DIN Standards 8077/8092	Each	219.00
891	TBSP-J.III-184	Supply of 20mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	209.00
892	TBSP-J.III-185	Supply of 25mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	276.00
893	TBSP-J.III-186	Supply of 32mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	287.00
894	TBSP-J.III-187	Supply of 40mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	586.00
895	TBSP-J.III-188	Supply of 50mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	682.00
896	TBSP-J.III-189	Supply of 63mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1,102.00
897	TBSP-J.III-190	Supply of 75mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	1,813.00
898	TBSP-J.III-191	Supply of 90mm PPR Ball Valve conforming to DIN Standards 8077/8092	Each	2,587.00
899	TBSP-J.III-192	Supply of 20mm PPR Clamp conforming to DIN Standards 8077/8092	Each	14.00
900	TBSP-J.III-193	Supply of 25mm PPR Clamp conforming to DIN Standards 8077/8092	Each	18.00
901	TBSP-J.III-194	Supply of 32mm PPR Clamp conforming to DIN Standards 8077/8092	Each	20.00
902	TBSP-J.III-195	Supply of 40mm PPR Clamp conforming to DIN Standards 8077/8092	Each	22.00
903	TBSP-J.III-196	Supply of 20mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	15.00
904	TBSP-J.III-197	Supply of 25mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	19.00
905	TBSP-J.III-198	Supply of 32mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	31.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
906	TBSP-J.III-199	Supply of 50mm civic coupler where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	91.00
907	TBSP-J.III-200	Supply of 20mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	12.00
908	TBSP-J.III-201	Supply of 25mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	16.00
909	TBSP-J.III-202	Supply of 32mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	22.00
910	TBSP-J.III-203	Supply of 50mm civic end cap where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	69.00
911	TBSP-J.III-204	Supply of 25mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	27.00
912	TBSP-J.III-205	Supply of 50mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	140.00
913	TBSP-J.III-206	Supply of 50x32 mm civic reducing elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	110.00
914	TBSP-J.III-207	Supply of 50mm civic tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	168.00
915	TBSP-J.III-208	Supply of 25x20mm civic reducer where in the compound should confirm to IS 15778 CPVC pipe and IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	21.00
916	TBSP-J.III-209	Supply of 32x25mm civic reducer where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	27.00
917	TBSP-J.III-210	Supply of 20x15mm CPVC brass fta where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	33.00
918	TBSP-J.III-211	Supply of 20mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	19.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
919	TBSP-J.III-212	Supply of 32mm civic elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	46.00
920	TBSP-J.III-213	Supply of 25x20 mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	289.00
921	TBSP-J.III-214	Supply of 20x15mm civic brass elbow where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	155.00
922	TBSP-J.III-215	Supply of 32x20 mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	12.00
923	TBSP-J.III-216	Supply of 50x20mm civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	19.00
924	TBSP-J.III-217	Supply of 20x15mm civic brass tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	9.00
925	TBSP-J.III-218	Supply of 50X32MM civic reducing tee where in the compound should confirm to IS 15778 CPVC pipe IS 15225 CPVC compound with high range of pressure and high range of thickness in SDR 11 and SDR 13.5	Each	20.00
IV	SUB-SECTION	CPVC pipe along with fittings		
926	TBSC-J.IV-01	S&F premium make CPVC Pipes of 15.90mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental, labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	237.00
927	TBSC-J.IV-02	S&F premium make CPVC Pipes of 22.20mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental, labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	313.00
928	TBSC-J.IV-03	S&F premium make CPVC Pipes of 28.60mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental, labour charges,	RM	394.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
		etc.complete for finished item of work as directed by Engineer-in-charge		
929	TBSC-J.IV-04	S&F premium make CPVC Pipes of 34.90mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc.complete for finished item of work as directed by Engineer-in-charge	RM	597.00
930	TBSC-J.IV-05	S&F premium make CPVC Pipes of 41.30mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc.complete for finished item of work as directed by Engineer-in-charge	RM	858.00
931	TBSC-J.IV-06	S&F premium make CPVC Pipes of 54.00mm OD Pipe - SDR 13.5 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc.complete for finished item of work as directed by Engineer-in-charge	RM	1,403.00
932	TBSC-J.IV-07	S&F premium make CPVC Pipes of 15.90mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc.complete for finished item of work as directed by Engineer-in-charge	RM	247.00
933	TBSC-J.IV-08	S&F premium make CPVC Pipes of 22.20mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc.complete for finished item of work as directed by Engineer-in-charge	RM	323.00
934	TBSC-J.IV-09	S&F premium make CPVC Pipes of 28.60mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental , labour charges, etc.complete for finished item of work as directed by Engineer-in-charge	RM	423.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
935	TBSC-J.IV-10	S&F premium make CPVC Pipes of 34.90mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental, labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	648.00
936	TBSC-J.IV-11	S&F premium make CPVC Pipes of 41.30mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental, labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	928.00
937	TBSC-J.IV-12	S&F premium make CPVC Pipes of 54.00mm OD Pipe - SDR 11 including the cost of pipe, required number of connectors such as elbows, tees, couplers, connectors, solvent cement etc., and labour charges complete including cost and conveyance of all materials to site, all operational, incidental, labour charges, etc. complete for finished item of work as directed by Engineer-in-charge	RM	1,527.00
938	TBSC-J.IV-14	Supplying and fixing of CPVC ball valve 65mm dia	Each	5,825.00
939	TBSC-J.IV-17	40mm dia - Pipe clip PVC	Each	11.00
940	TBSC-J.IV-18	40mm dia -PVC Doors bends	Each	42.00
941	TBSC-J.IV-19	40mm dia - PVC Vent Cowl	Each	47.00
942	TBSC-J.IV-20	40mm dia -PVC Single Tee	Each	11.00
943	TBSC-J.IV-23	80mm dia - Plain bend 90 degrees-CPVC pipe fillings SCHD -80	Each	1,217.00
944	TBSC-J.IV1-24	80mm dia - Plain bend 45 degrees-CPVC pipe fillings SCHD -80	Each	1,172.00
945	TBSC-J.IV-25	80mm dia - Tee -CPVC pipe fillings SCHD -80	Each	1,672.00
946	TBSC-J.IV-26	80mm dia - coupler -CPVC pipe fillings SCHD -80	Each	700.00
947	TBSC-J.IV-27	Supply of 80mm CPVC - Sche-80 Ball Valve	Each	4,297.00

Sl. No	Item Code	Description of the item	Unit	Scheduled Rate
948	TBSC-J.IV-28	Supply of 65mm CPVC - Sche-80 Ball Valve	Each	3,009.00
949	TBSC-J.IV-29	Supply of 50mm CPVC - Sche-80 Ball Valve	Each	1,392.00
950	TBSC-J.IV-30	Supply of 40mm CPVC - Sche-80 Ball Valve	Each	883.00
951	TBSC-J.IV-31	Supply of 32mm CPVC - Sche-80 Ball Valve	Each	650.00
952	TBSC-J.IV-32	Supply of 25mm CPVC - Sche-80 Ball Valve	Each	303.00
953	TBSC-J.IV-33	Supply of 20mm CPVC - Sche-80 Ball Valve	Each	269.00
954	TBSC-J.IV-34	Supply and fixing of the frameless Mirror of 4mm thickness of length maximum 8' and height 2' including the cost of all materials, nosing, transportation charges, labour charges for fixing the letters, incidental, overheads & contractors profit etc. complete for finished item of work.	1 Sqm	4,226.00

NOTE: All the items to be used on work are of first quality & ISI and as approved by the Engineer In charge of the work.

1 RATES

- a All the prices of the material given in this section are excluding taxes but including cost of loading, cost of conveyance, unloading & stacking
- b Supply Rates for all the materials are basic rates based on market rates/quoted rates/ derived rates, excluding Taxes.
- c The applicable GST (works contract) shall be added at applicable rate in Part B of the estimates.
- 2 Coloured porcelain items: 50% extra may be allowed on basic cost of white porcelain items excluding fittings
- SSR Rates for Sanitary & water supply items are purely for guidance for the officers for preparation of estimates vide Para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in Para 45 of APPWD code.

LEGEND

"TBSP" -A.I-01

"TBSP" -C.I-22

"TBSP" -D.III-14

TBSP - Denotes Plumbing item in the Telangana Buildings SoR

A.I/ C.IV - Denotes the Section & Sub-section

01/22 - Denotes the serial number of the item

Sl. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
A	SECTION	S.W.G. PIPES & FITTINGS
		(Landing cost - including material VAT/ loading/ cost of conveyance/ unloading & stacking)
I	SUB-SECTION	SUPPLY & LAYING OF SWG PIPES - Any ISI Brand
II	SUB-SECTION	S.W.G. FITTINGS - Any ISI Brand
C	SECTION	CENTRIFUGAL CI PIPES & FITTINGS - IS : 1729
I	SUB-SECTION	SUPPLY & LAYING OF CAST IRON PIPES - BIC/ NECO/ Jayaswal Neco , SKF, HEPKO
II	SUB-SECTION	SUPPLYING & LAYING OF C.I. FITTINGS - BIC/ NECO/ Jayaswal Neco
D	SECTION	CENTRIFUGAL CI PIPES & FITTINGS - IS : 3989
I	SUB-SECTION	SUPPLY OF CENTRIFUGAL CI PIPES - BIC/ NECO/ Jayaswal Neco, SKF, HEPKO
		HUBLESS CENTRIFUGAL CI PIPES - BIC/ NECO/ Jayaswal Neco, SKF, HEPKO
II	SUB-SECTION	SUPPLY OF C.I. SPUN FITTINGS - BIC/ NECO/ Jayaswal Neco, SKF, HEPKO
E	SECTION	VITREOUS CHINAWARE - SANITARY APPLIANCES
I	SUB-SECTION	INDIAN WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA/Jaquar / Somany, Watertec, Kerovit by Kajaria, Topsan, AGL, Johnson, Astral, Machinoo Tech, Ess Ess/ Bathsense
II	SUB-SECTION	FLOOR MOUNTED EWC - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA/Jaquar / Somany, Watertec, Kerovit by Kajaria, Topsan, AGL, Johnson, Astral, Machinoo Tech, Ess Ess/ Bathsense
III	SUB-SECTION	WALL MOUNTED EWC - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar/ Somany, Watertec, Kerovit by Kajaria, Topsan, AGL, Johnson, Astral, Machinoo Tech, Ess Ess/ Bathsense
IV	SUB-SECTION	CISTERNS FOR WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria, Topsan, AGL, Johnson, Astral, Machinoo Tech, Ess Ess/ Bathsense
V	SUB-SECTION	PLASTIC SEATS FOR WATER CLOSETS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria, Topsan, AGL, Johnson, Astral, Machinoo Tech, Ess Ess/ Bathsense
VI	SUB-SECTION	WASH HAND BASINS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Watertec, Kerovit by Kajaria/ DEC Industries PVT LTD,, Topsan, AGL, Johnson, Astral, Machinoo Tech, Ess Ess/ Bathsense
		SINKS - Goel Sinks, Futura, Plastocraft
VII	SUB-SECTION	URINALS - Hindustan Sanitary ware/ Parryware/ Neycer/ CERA /Jaquar / Somany, Naturesani, Watertec, Kerovit by Kajaria, Bandhan, Merino, AGL, Ess Ess/ Bathsense,
F	SECTION	CP FITTINGS - TAPS/ FAUCETS & ACCESSORIES
I	SUB-SECTION	TAPS&FAUCETS - BIB TAPS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco / Somany/Kingston/Prayag Polymer/KUNCHAL (Aluminium Udyog)/M/s Sumo PolyplastPvt. Ltd (Sumolex), Watertec, Ambani, Kerovit by Kajaria, Austro,/ ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries, Kohler,Roca, AmericanStandards ,TOTO, SUKI, RSM, Plastocraft, Topsan, AGL
II	SUB-SECTION	TAPS&FAUCETS - PILLAR TAPS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware- PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco / Somany/ Kingston/Prayag

SI. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
		Polymer/ KUNCHAL (Aluminium Udyog)/ M/s Sumo PolyplastPvt. Ltd (Sumolex), Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS/ BATHSENSE/ ROYALE/ Futura/ Player, DEC Industries, Kohler, Roca ,AmericanStandards,TOTO, ,SUKI,RSM, Plastrocraft, Topsan AGL
III	SUB-SECTION	TAPS&FAUCETS - OTHER TAPS & SPOUTS - Seiko/ Senior/ Nice/ Senior/ Nice/CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco /Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog)/ M/s Sumo PolyplastPvt. Ltd (Sumolex) Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS / BATHSENSE/ ROYALE/Futura/Player, DEC Industries, Kohler,Roca,AmericanStandards,TOTO, ,SUKI, RSM, Plastrocraft, Topsan, AGL
IV	SUB-SECTION	STOP & ANGLE VALVES - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro/ ESS ESS/ BATHSENSE/ ROYALE, Futura/Player, DEC Industries,Kohler,Roca,AmericanStandards,TOTO, ,SUKI, RSM, Plastrocraft, Topsan, AGL
V	SUB-SECTION	COMBINATION FAUCETS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog) Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries,Kohler,Roca,AmericanStandards,TOTO, ,SUKI, RSM, DOLPHY, Plastrocraft, Topsan AGL
VI	SUB-SECTION	SHOWERS & FITTINGS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware - PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player,DEC Industries, Kohler ,Roca, American Standards, TOTO, ,SUKI, Plastrocraft, Topsan AGL
VII	SUB-SECTION	MISCELLANEOUS CP FITTINGS - Seiko/ Senior/ Nice/ Senior/ Nice/ CERA/ Hindware- PREMIUM MAKE - Jaquar/ Hindware/ Plumber/ Parryware/ Johnson, Karla / Essco / Somany/ Kingston/Prayag Polymer/ KUNCHAL (Aluminium Udyog), Watertec, Ambani, Kerovit by Kajaria, Austro / ESS ESS/ BATHSENSE/ ROYALE/Futura/Player, DEC Industries, Kohler ,Roca,AmericanStandards,TOTO, ,SUKI, Plastrocraft, Topsan AGL
G	SECTION	G.I. PIPES & FITTINGS
I	SUB-SECTION	G.I. PIPES - Tata/ JSW/ Oswal/ Zenith, Jindal-Hissar, Prakash-Surya, HariOm
II	SUB-SECTION	G.I. FITTINGS - HB / Kirti/ R-Brand, Unik,K.S.,Zoloto,
III	SUB-SECTION	BRONZE (COPPER ALLOY) VALVES - Zoloto/ R-Brand
H	SECTION	PVC PIPES & FITTINGS
I	SUB-SECTION	PVC PIPES - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/Birla Aerocon/TRUFLO by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki, Flowkem, Supreme, ,SUKI, Sentini, Astral, Kothari
		PVC - O PIPES - CCAL, ORIPLAST
		UPVC pipes - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/Birla Aerocon/TRUFLO by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PIPES LTD / DEC Industries PVT LTD/Vectus/Suki, Flowkem, Finolex, Supreme, ,SUKI, Astral, Sentini

SI. No	SECTION	NAMES OF THE APPROVED BRAND/ MANUFACTURER/ SUPPLIER
II	SUB-SECTION	PVC FITTINGS- Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/ Birla Aerocon/ TRUFLO by Hindware/Prayag Polymer, Watertec, Austro, Nandi/ APOLLO PI, Astral PES LTD / DEC Industries PVT LTD/Vectus/Suki, Flowkem, Supreme, ,SUKI, Sentini, Astral, Kothari
III	SUB-SECTION	PVC PLUMBING ACCESSORIES - Prince/Sudhakar/Kisan/Supreme/ Astral/ Finolex/ Ajay/ Ashirvad/ Birla Aerocon/ TRUFLO by Hindware, Watertec, Austro, Nandi/ APOLLO PIPES LTD /Vectus, Supreme,SUKI, Sentini Astral, Kothari
		PVC Tanks - Sintex, Aquatech, Nandi, Agarwal, TRUFLO by Hindware, Flowkem, OXYGEN, Bathsense, Sovisy, Sudhakar
		PVC - LLC Cisterns - Parryware/ Slimlines/ CERA/ Hindware/Prayag Polymer/ APOLLO PIPES LTD, AGL
J	SECTION	MISCELLANEOUS ITEMS
I	SUB-SECTION	POLYETHYLENE-ALUMINIUM - POLYETHYLENE COMPOSITE PIPES - Kitec/ Kisan/ Uniflex/M/s SumolexPolyplastPvt. Ltd/ APOLLO PIPES LTD
II	SUB-SECTION	CPVC PIPES & Fittings- Supreme/ Ashirvad/ Astral/ Prince / Kisan / Ajay/Birla Aerocon/ Hindware TRUFLO/Sudhakar/Prayag Polymer/ M/s SumolexPolyplastPvt. Ltd, Watertec, Ambani, Austro, Nandi/ DEC Industries PVT LTD , Suki, ,Finolex,AKG, ,SUKI, , Astral, Flowkem, Kothari

ELECTRICAL ITEMS

GUIDELINES FOR ELECTRICAL WORKS

PREFACE

Electrical supply and installation are an important and essential part of Building Services. Right from initial planning, design, selection of material, installation / method of construction; to testing, commissioning and maintenance; every aspect is governed by statutory provisions referring various Standards and Codes. All such norms are oriented to minimize risk, provide safe use, operation, functionality, and convenience throughout service life.

Any lapse in any of the above aspect may lead to severe effects on human life and devastation of assets. Occasions of electrical fires are increasing with the increasing use and electrical gadgets. Unfortunately, still it is seen that Electrical Installation is given least importance. Qualities and safeties are compromised out of connivance or lack of technical knowledge. Many times, electrical work gets executed through non-qualified persons not having required knowledge and Permit in that regard. Such hired persons work on labour basis to whom non-standard material is supplied without any base of 'Design'. There is no person to supervise quality and safety aspects, most of which remains 'concealed' as the work gets completed.

In case of High-Rise buildings norms are more stringent. Fire hazard is more prominent risk factor as evacuation in high-rise building is a challenging task. Part 3 section 7 of NEC gives special guidelines in this regard.

The person who uses, operates electrical installation is not expected to know the real technical aspects of design, material used, quality of work, adherence to safety, compliance with statutory provisions. Under the circumstances it has become a need to set base line parameters. Plug the loopholes, get the work done adhering to norms and standards and make someone responsible so that in case of any lapse / mishap such person / agency can be made answerable.

The following guidelines / recommendations / mandates are basically given to execute work of Electrical Installation.

1. ARCHITECTURAL/CIVIL WORK PROVISIONS RELATED TO ELECTRICAL INSTALLATION

1.1 Architectural Planning requirements

At planning stage Architect shall discuss and consider requirements of Electrical Consultant / Contractor in respect with site and location*of construction and in respect with drawings of building requirement of spaces, clearances, approach ways, raceways, shafts, recommended wall thickness, required provisions for prevention from fire hazard likely to originate from electrical installation.

*If proposed construction is within vicinity of existing over-headline, underground cable compliance with Regulation 63 of CEA Safety Regulations shall be checked prior to commencement of any work on site.

Architect shall incorporate following points in the drawings related to services as per the applicable requirements.

1.1.1 Site Plan

Site plan shall show existing overhead electrical lines / underground cables if any and proposed construction within the boundaries of the area to be developed.

1.1.2 Routes and service entry points

Architectural drawings shall clearly mark electrical service entry points, cable routes below ground, through the building structure, so that detailing in electrical shop drawings will restrict the work within specified route and no conflict shall occur with other building utility service. The drawings shall specify required horizontal and vertical clearance to be maintained between other utility services.

1.1.3 Locations of Electrical Panels

Locations and position for main and sub electrical panels shall be marked, and adequate space /room shall be allocated considering dimensions of panel, clearance in front, side and back. Consideration shall be given to space required for opening of the panel doors/

racking out breakers, and approach boundaries (Refer NEC Part1/section 24 Electrical Safety), and accessibility. Floor mounting panels shall preferably be located in separate Electrical Panel Rooms having outside door opening, required fire rating (two hours if not specified) and ventilation arrangement.

NOTE - Special consideration shall be given to this point in case of High-Rise buildings.

1.1.4 Electrical meter rooms

Meter rooms shall be separate. It shall be planned to have sufficient head room and clear space in front of meters, control switches (at least 1m). Space on wall shall be sufficient to accommodate required number of meters at suitable height so that readings can be taken without aid of any tackle. Also, the switchgears shall be at least 0.5 m above floor level and within such height to have an easy access for operation. The meter room shall be well ventilated, protected from external influences like sun, rain, water seepages, entry of rodents. Location of meter room shall be suitably adjacent or nearest to cable duct / shaft / vertical route of mains.

NOTE - Meter rooms shall not be located below staircases where above requirements could not be complied with.

1.1.5 Movement of heavy / bulky electrical equipment

For installation of electrical equipment within building which is likely to be heavy / bulky in size or removing it for maintenance, provision of adequate passages, stair ways or any alternate provision for its shifting / movement shall be considered.

1.1.6 Shafts /ducts

There shall be provision of shafts with required fire rating (2 hours if not mentioned specifically) for vertical electrical distribution which shall preferably be adjacent to electrical panels. Shafts shall be separate for electrical HT cables, LT power cables / bus-bar trunking and cable work of Extra Low Voltage systems like telephones, security system, fire alarm, signalling, BMS or data networking etc. If independent shaft is not possible, there shall be an arrangement for segregation in between, which shall have required fire rating same as that of shaft. No other utility service shall run through these shafts. Shafts shall be accessible at all levels with doors having fire rating as that of shaft and shall not open in fire escape staircase. All shafts shall have fire prevention provision as per National Building Code and fire safety requirements of local statutory authorities.

NOTE - As per CEA Reg.36 provision in respect of independent electrical service shaft is mandatory for all buildings above 15m height (High-Rise buildings).

1.1.7 Interior design and Electrical Layouts

It is recommended to prepare interior layouts so as to plan electrical points, locations of switch boards to suite the aesthetics, functionality as well as for comfort and ease of operation.

1.1.8 Aesthetics and Electrical Safety

To avoid conflicts between Architect from perspective of aesthetic and person executing electrical installation work from the point of view of safety requirements of electrical work, convenience and ease of installation and further maintenance depending on type of wiring (concealed / surface / hybrid), location of distribution boxes, requirement of under-floor trunking / false flooring / false ceiling, wall partitions and openings to enter into / work within as per the need. These points shall be decided at planning stage.

1.1.9 Illumination

Within interior work number, type, size, and location of luminaries shall be decided and agreed upon mutually between Architect and Electrical Agency, considering technical parameters of lux level, CCT, heat dissipation, accessibility and maintainability.

1.1.10 Ceiling Fans

Location of ceiling fans shall suite recommended minimum clearance between ceiling / false ceiling and fan blade (225mm), floor level and fan blade(2400mm).Sweep of fan blades shall not obstruct light source. Location and size of fan shall also suite utility from the point of view of users and aesthetically match with false ceiling design.

NOTE : Sometimes due to afterthought provision of false ceiling, it creates problems affecting required clearances. Under some cases, replacement of down rod with suitable length may solve problem but in case of limited ceiling height It is not possible.

1.1.11 Exhaust fans

Wherever provision of exhaust fans is there, cross ventilation shall be considered to allow sufficient fresh air to enter into particular envelop, e.g. for toilets where exhaust fans are proposed, door under cuts or louvers preferably at lower level for cross ventilation shall be provided.

NOTE : Non provision of entry for fresh air creates negative pressure within the envelope increasing load on exhaust fan resulting into heating and subsequent failure.

1.1.12 Earthing

Location of earthing pits shall be shown on drawings so that those shall always remain open and accessible for testing and maintenance throughout the service period.

1.1.13 Restricted Access

Areas requiring restricted access to designated person, authorized to carry out electrical work therein shall be provided with necessary arrangements.

1.1.14 Sub stations / Generators / Battery rooms

Location of required civil structure shall be considered in advance with required height of room, door openings, firefighting system, ventilation etc.

1.2 Civil Planning and Constructional Requirements

It is important to plan activities of civil construction and electrical works in detail on bar chart or similar tools available in project planning. The bar chart shall be updated and coordination be monitored to avoid conflicts, breakages and reworking. Following points give general guidelines.

1.2.1 Fire rating

The electrical panel rooms, doors, segregation arrangement within shaft shall have fire rating of 2 hours or as per requirements mentioned under NBC, Central Electricity Authority (measures related to Safety and Electric Supply) Regulations, 2010 and further amendments.

1.2.2 Shafts / Ducts /Chambers

Design and location of cable ducts, shafts, chambers, their covers, and entry points, shall be as per shop drawings provided by electrical agency and shall be in consultation with, considering further aspects of maintenance / repairs / replacement. Size of chambers shall be in consideration with bending radii of cables. At every flooring level, there shall be a provision to seal these shafts, so that in case of fire, it shall not spread, or smoke shall not pass from one floor to other.

1.2.3 Openings and covers

Manholes / opening of chambers shall not be less than 650mm x 550mm or 650mm India., where opening is intended for entry of person. Covers of manholes, chambers shall bear sufficient strength to withstand loads likely to be imposed on the structure. Covers shall be marked with the name of the service.

Openings / covers of Junction boxes / draw-in boxes / accessories in conduit systems with inspection openings shall always be accessible.

1.2.4 Enclosures for underground cables

Pipes to be used for cable as enclosures shall be of required diameter so that cable can pass through or removed from easily and have sufficient mechanical strength and shall be erected at required depth to suite requirements of IS 1255.

1.2.5 Wall thickness

Walls shall be of sufficient thickness to accommodate concealed boxes / switchboards / distribution boxes. So that installation of boxes will not affect strength of wall. Additional strengthening shall be considered if necessary.

NOTE : Depth of box may be 60 mm or vary depending on manufacturer's design. Under circumstances in 4"/100 mm wall it is not possible to accommodate these boxes back-to-back. Staggering may solve problem to certain extent.

1.2.6 Structural strength

In Wiring Installation where Cable Ladder, Tray system is used for cable management, its structure along with the load of cables which it is going to support, is likely to impose load on the primary structure of building. This situation occurs when supports of this system

are fixed on building structure. For this building structure shall have capacity to bare the load.

At some locations there are chances of conduits getting crowded endangering structural strength due to number of circuits entering / passing out from the particular DB / panel. This situation may occur in beam, slab, and wall. If such situation is unavoidable necessary measures may be required to be taken to retain structural strength.

1.2.7 Sleeves / core cutting

As far as possible sleeves shall be got erected for entry of wires / cables through wall, flooring, RCC structure during construction to avoid core cutting, damages and reworking at finishing stage. Sometimes core cuttings may be required which shall be done with the consent of structural engineer and under supervision of civil engineer.

1.2.8 Water leakages / seepages

Design shall take into consideration possible seepages, leakages, accumulation, and ground in-surge of water, which is hazardous to electrical installation. Required provisions shall be made at such locations to prevent and work shall be executed with due care.

1.2.9 Bathrooms /washrooms

Within bathrooms / washrooms, location of showers, faucets shall be such that during use, water shall not splash on switch boards / electrical outlets / fittings.

1.2.10 Tandems in Flat Slab post tension structures

For flat slab post tension structure's locations of tandems marking shall be made to avoid puncture of / damage to tandems during electrical construction activity.

1.2.11 Earthing

Any construction work, including excavation, subsequent to construction of earthing electrode/s ; it shall not disturb / damage any part of earthing system. Any civil work on construction site shall not cause cover-up / concealing of any portion of electrical earthing system without notice and consent of person In - Charge of electrical work.

1.2.12 Sub stations / Generators / Batteries

Trenches, ventilation, approach roads shall be provided as per necessity.

2. ELECTRICAL PROVISIONS

2.1 Statutory Obligations - Appointment of Licensed Electrical Contractor

Reg .29(1) shall be strictly followed by the Developer and work shall be got done through Licensed Electrical Contractor who shall submit Test Report of the work carried-out by him.

Developer may take undertaking from the Licensed Electrical Contractor, who shall be responsible to do the work through the qualified workmen having required permit in that regard. He shall also see that the material to be used, work and workmanship shall conform to respective norms, standards, and Regulations.

NOTE-All hidden work shall be checked for conformity with the standards prior to get it concealed, shall be certified by the contractor.

2.2 Statutory Obligations-Approvals /Permissions / Licenses

Required approvals shall be taken as per related Rules and Regulations mentioned below prior to the commissioning and handing over the installation for beneficial use.

- Central Electricity Authority (measures related to safety and electric supply) Regulations 2010 and amendments 2015, 2018
- Reg. 32 - Generator Inspection and approval for commissioning.
- Reg. 36 - Multi-storied building (height above 15m): inspection and NOC for commencement of supply
- Reg. 43 -Transformer sub-station or any installation above 660V: inspection and approval before commencement of supply

See **Annexure C of above regulations** for extract of Regulations.

2.3 Material

Material used for Electrical Installation shall conform to the respective Indian standards or International standards where relevant Indian Standards are not available. Technical

Specification of material shall strictly adhere to the design, based on load, use, external influences and safety.

2.4 Wiring Installation

Electrical Installation shall conform to provisions from related sections of National Electrical Code (NEC) and National Building Code (NBC). See **Annexure A** for minimum / basic requirements from the point of view of Safety and functionality.

2.5 Transformer sub-station

Transformer sub-station providing supply to the building if located within building shall either use dry type transformer or a transformer filled with Synthetic Ester. Transformer filled with Natural ester shall be used only if transformer is sealed (without breather). For Transformer installed in separate room detached from building structure 7.5m away Mineral oil may be allowed.

2.6 Generator standby supply

For every high-rise building there must be a provision of generator supply as a standby arrangement which shall be of adequate capacity to cater load of all emergency systems for required time. Location and system of supply shall be such that functioning, and purpose of Generator will not be affected due to emergency like fire in building. If fire authority requires standby supply arrangement for fire-fighting system also, provision of generators shall be made accordingly.

2.7 Handing over Documents

It shall be a part of obligation on the developer to handover the documents belonging to the prospective owner for his information and which he will need him for reference and maintain as a record.

2.8 MCBs

For lighting circuit 6A MCB and for power circuit of power point 16A MCB shall be used. For lighting circuits MCBs of B series may be used. For independent circuit of plug points C series MCB shall be provided. Circuits providing supply for appliances like Air-Conditioner / water-pump shall be provided MCBs of 'C' series. AC above 1.5 TR maybe provided with MCB of 20 / 25 A rating.

2.9 RCDs

Complete electrical installation must be protected against electrical shock by provision of Residual Current Device (also referred as ELCB/RCCB) having sensitivity of 30mA. RCDs may be provided more than one at suitable locations, to retain supply redundancy. In three phase DBs per phase protection maybe provided. For installation having load 10kw and above, it is also recommended to provide RCD of 300mA sensitivity at the source / point of supply to provide protection against Fire due to leakage currents.

2.10 Main switchgears

Depending on load provision of MCCBs, Circuit breakers shall be made with precise rating of overload, short-circuit etc.

3. Provision in respect of High-Rise building

3.1 Supply isolation during Emergency

Sub Regulation (3) of CEA Regulation No.36 provides for arrangement to completely isolate the supply at the time of emergency. It shall be interpreted as below:

3.2 The provision of a device to isolate complete supply, also called Fireman's Switch, is aimed at restricting further danger of short circuits due to fire and spread of fire and shock hazard, restriction on use of Lifts and any other activity running on electrical supply which may aggravate the situation. However, supply to emergency services like rescue operation, Fire- Fighting shall not get affected with the operation of this control.

3.3 Suitable arrangement shall be done at the point of supply to separate supply of emergency services make arrangements to identify and mark with instructions

CEA (Measures related to Safety and Electric Supply) Regulations 2010 made under section 53 read with section 177 of Electrical Act 2003 Regulation 29(1):

No electrical installation work, including additions, alterations, repairs and adjustments to existing installations, except such replacement of lamps fans, fuses, switches, domestic appliances of voltage not exceeding 250V and fittings as in no way alters its

capacity or character, shall be carried out upon the premises of or on behalf of any consumer, supplier, owner or occupier for the purpose of supply to such consumer, supplier, owner or occupier except by an Electrical Contractor licensed in this behalf by the State Government and under the direct supervision of a person holding a certificate of competency and by a person holding a permit issued or recognised by the State Government.

3.4 Regulation12(1):

All electric supply lines and apparatus shall be of sufficient rating for power, insulation and estimated fault current and of sufficient mechanical strength, for the duty cycle which they may be required to perform under the environmental conditions of installation, and shall be constructed, installed, protected, worked, and maintained in such a manner as to ensure safety of human beings, animals and property.

3.5 Regulation12(2):

Save as otherwise provided in these regulations, the relevant code of practice of The Bureau of Indian Standards or National Electrical Code, if any, may be followed to carry out the purposes of this regulation and in the event of any inconsistency, the provisions of these regulations shall prevail.

3.6 Regulation12(3):

The material and apparatus used shall conform to the relevant specifications of the Bureau of Indian Standards or International Electro - Technical Commission where such specifications have already been laid down.

All electrical equipment shall be installed above the Mean Sea level (MSL) as declared by local Municipal Authorities and where such equipment is to be installed in the basement, consumer shall ensure that the design of the basement should be such that there is no seepage or leakage or logging of water in the basement.

3.7 Regulation12(4):

All electrical equipment shall be installed above the Mean Sea level (MSL) as declared by local Municipal Authorities and where such equipment is to be installed in the basement, consumer shall ensure that the design of the basement should be such that there is no seepage or leakage or logging of water in the basement.

3.8 Regulation 36 Provisions for supply and use of electricity in multi-storeyed building more than15 meters in height: Regulation36 (3)

The supplier or owner of the installation shall provide at the point of commencement of supply a suitable isolating device with cut-out or breaker to operate on all phases except neutral in the 3-phase,4-wire circuit and fixed in a conspicuous position at not more than1.70meters above the ground so as to completely isolate the supply to the building in case of emergency.

SYSTEM OF DISTRIBUTION OF WIRING

- 1 The wiring shall be done from a distribution system through main & Sub-distribution boards.
- 2 The system design and location of DBs will be properly selected.
- 3 Each main and sub-distribution boards shall be controlled by an incoming circuit breaker.
- 4 For Non-residential buildings, as far as possible, DBs shall be separate for light and power.
- 5 Only MCCB / MCBs shall be used.
- 6 "Power" wiring shall be kept separate and distinct from light wiring from the level of circuits.
- 7 Conduit for light and power wiring shall be separate
- 8 Essential / Non-essential/ UPS distribution : Each System will have a completely independent and separate distribution system starting from the main switch board up to final wiring point for each system.
- 9 No switch board will have more than one source.
- 10 Each main distribution board / Sub-distribution board will have spare outgoing MCBs for future expansion.

- 11 I) All switch boards shall be installed at 1.2 to 1.4 Mt height from Finished Floor level as per the disable standards.
 II) all 6A sockets, 16A / 6A sockets shall be installed at the following positions, unless other wire specified.
 - a) 1. NRB - 30 cm above floor level.
 2. RB - 30 cm above floor level until unless specified by Engineer -in charge.
 - b) Kitchen - 30 Cm above platforms and away from sink / stove.
 - c) Bath room - No socket outlet is permitted for connecting a portable appliance there to.
 - d) Power socket may be provided above 2Mts for fixed appliance and at least 1.0 m away from the shower.
1. **Sub Main Wiring :-**
 Sub Main wiring shall mean the wiring from one main DB to other.
2. **Circuit Wiring :-**
 Circuit wiring shall mean the wiring from the DB to the 1st tapping point inside the switch board, from where point wiring starts.
3. **Service Mains:-**
 Service Mains shall mean the wiring from the supply pole / feeder pillar of SPDCL / NPDCL to main panel / main distribution board.
4. **Point Wiring:-**
 A point wiring shall include shall include necessary wiring to the following outlets from the controlling switch.
 - a) Ceiling rose (in case of ceiling / exhaust fan points, light fittings and call bells)
 - b) Ceiling rose (in case of ceiling fan)
 - c) Lamp holders
5. **Point wiring for socket outlet points-**
 - a) 10A socket on common switch board i.e including required wire leads.
 - b) 10A - Separate Socket point i.e socket on separate board including wiring is called 6A separate socket point.
 - c) 16A / 10A socket point - 16A point wiring will be measured on linear basis from respective tapping point to the 16A socket.
6. **Twin Control light Point:-**
 A Light point controlled by two numbers of two way switches. It is used in bed rooms, stair case points. The rates shall be 1.5 times normal light / fan point
7. **Multiple controlled call bell point wiring.**
 In case of call bell points with a single call bell controlled from one outlet is same as light point.
 In case of call point with single call bell controlled from more than one place, the point shall be measured in parts i.e
 - a) from call bell outlet to one of the nearest ceiling rose meant for connection to bell push treated as one point.
 - b) Other bell pushes shall be measured the linear length as run of mains.
8. **Wiring System:-**
 HFFR multi strand flexible copper cable are permitted to be used".
 - a) Wiring shall be done only with minimum 1.5 sqmm flexible copper, Class - II conductor wire for light, fan, exhaust fan , call bell, 6A socket etc.
 - b) Phase neutral and earth shall be same in size.
 - c) In wiring, no joints in wiring will be permitted anywhere except in switch box or at point out let**Colour Coding :**
 Phase / Live - Red / yellow / Blue
 Neutral - Black
 Earth - Green
 d) For light / bell wiring shall be two wire system.

e) For ceiling fan / exhaust fan / Separate socket wiring shall be three wire system.

Circuit main for switch boards:-

Circuit main for switch board shall be 3 runs of 2.5sqmm Class - II conductor copper cable i.e for phase, neutral and earth. That is from DB to switch board.

Circuit Main for 16A socket :-

Circuit mains for 16A sockets shall be 3 runs 4.0sqmm from DB to 16A socket for Phase, neutral and earth conductor.

Circuit Main for AC socket :-

Circuit mains for AC socket shall be 3 Runs of 6.0sqmm from DB to AC socket. Phase, neutral and earth conductor are equal in size (i.e sqmm).

Circuit Main for LDBs / PDBs :-

Circuit mains for LDBs shall be 5 Runs of 6.0sqmm from Main panel to LDBs for Phases, neutral and earth conductor.

Circuit mains for LDBs shall be 5 Runs of 10.0 / 16.00 sqmm from Main panel to PDBs for Phases, neutral and earth conductor.

Note 1: Power circuit rated more than 1KW, size as per calculations.

Note 2: All the cables used inside the building upto 16 Sq mm must be Copper.

Capacity of Circuits.

- I Lighting circuits shall feed light / fan / call bell points. Each circuit shall not have more than 800W connected load or more than 10 points. In case of LED lights, where load per point may be less, number of points may be suitably increased upto 18 points.
 - II Power circuit in NRB will have only one outlet per circuit.
 - III Each power circuit in residential buildings can feed following outlets.
 - a) Not more than 2 Nos 16A socket outlets.
 - b) Not more than 4 Nos 6A/ 10A socket outlets.
 - c) Not more than 1 No 16A & 2Nos 6A out lets.
 - IV. Load more than 1 KW shall be controlled by suitable rated MCB and cable size shall be decided as per the load calculations and length of circuit mains.
 - V. Load shall be distributed equally among the three phases.
- Mounting Height of light fixture / ceiling fans:-
- I Fittings shall be installed such that the lamp is at a height of 2.4 Mtr above floor level, unless otherwise directed by the Engineer-in charge.
 - II Unless otherwise specified, all ceiling fans shall be hung 2.75 Mt above the floor.
 - III All DBs shall be installed 5 Ft above the FFL.
- Non- Metallic Conduit System:-
- I Recessed conduit work is generally suitable for all applications.
 - II Surface conduit work may be adopted in places like workshops etc where recessed work may not be possible to be done.
 - III Flexible Non-Metallic conduits shall be used only at terminations, wherever specified.
- Note: Non-Metallic conduit shall not be used for the following applications.
1. In concealed / in accessible places of combustible constructions where ambient temperature exceeds 60°C.
 2. In places where ambient temperature less than 5°.
 3. For suspension of fixtures.
 4. In areas exposed to sunlight.
 5. Radius of conduit pipe shall not be less than 7.5 Cm.
 6. No length of conduit shall have more than the equivalent of 4 quarter bends from outlet to outlet.
 7. Conduit pipes shall be fixed by staples, base saddles, placed at not more than 50 cm apart
 8. Saddles / Stapler shall be fixed at a distance of 15 cm from either side of the bends / JB/ Joints.

Trunking cable Management System:-

- i. This system using PVC trunking shall be adopted in residential buildings or office buildings where there is a need of tidy wiring system.
- ii. PVC trunking for distribution of voice, Data and power should be used for cable management and should be compatible for adopting RJ45 Data socket and power socket or other wiring accessories like switches, indicators etc.
- iii. Trunking shall have insulation rating of 5 Mega ohms.
Trunking shall have the following fire resistances characteristics
 - a. Operating temperature between - 40°C to 60°C
 - b. Glow wire test - 960°C
 - c. Oxygen index - 50 ± 5
 - d. UL 94 - VO
- iv. PVC trunking shall be of good quality PVC, free from defects like deformation, unevenness, blisters, cavities etc.
- v. The thickness of the mini trunking and adoptable trunking shall be 1mm minimum.
- vi. Joints in casing and capping shall be rear fed or cut diagonally in longitudinal section, and shall be smoothed down by filling to make the joints a very close fit as far as possible and without burrs. They shall be screwed at joints with two or more screws as wood be necessary.
- vii. Joints arising out of bends or diversion shall be done using standard accessories like internal angle, external angle, flat angle, flat junctions (T) and end caps.
- viii. In no case the radius of curvature of the cable inside a bend shall be less than 6 times their overall diameter
- ix. No Screws or nails shall be used for fixing PVC cover to the body.
- x. Mini trunking shall be of such a design that it holds the wires inside the trunking body (casing) at suitable intervals, so that at the time of opening of the trunking cover (capping), the wires may remain in position in the trunking body (casing) and do not fall out.

Current Density:

Bus bars shall be of sufficient Cross section area so that a current density of 0.8A / sqmm (80A/Sqcm) is not exceeding at a nominal current rating for align bus bars.

1.2A / sqmm (120A / Sqm cm) for copper bus bars

Cross section of Bus bars:

Cross section of neutral bus bar shall be same as that of the phase bus bar.

Bus bar Clearances:-

1. The Minimum clearance to be maintained for enclosed indoor air insulated bus bars for medium voltage application shall be as follows.

Between	Minimum Clearance
Phase to earth	26 mm
Phase to Phase	32 mm
2. All bus bars in a panel board shall be copper up to 500A , and aluminium for bus bars above 500A.

Note 1: - For strip connection from bus bars to switch gear, the above clearance don't apply.

Note 2 :- The overlap of the bus bars at the joints shall be not less than 1.5 times the width of bus bars.

Note 3 : Models of the Luminaires, Ceiling fans, Air Conditioners, Transformers and Generators should be got approved by the competent authority duly submitting the TDS along with the test reports, catalogue and comparative statement for the agreement specification and TDS.

Note 4 : Panel Board Shop / GAD Drawings should be got approved by the competent authority duly submitting the agreement specification.

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		SECTION - 1			
	1.1	M.S. CONDUIT PIPES			
	ELEC-1.1.1	Supply of ISI, ----- dia, 1.6mm thickness MS conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
1	a	20 mm	1	Mtr	138.00
2	b	25 mm	1	Mtr	176.00
3	c	32 mm	1	Mtr	253.00
	ELEC-1.1.2	Supply of ISI, ----- dia, 2.0mm thickness MS conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
4	a	40 mm	1	Mtr	418.00
5	b	50 mm	1	Mtr	528.00
		HOT DIP GALVANIZED CONDUIT PIPES			
	ELEC-1.1.3	Supply of ISI, ----- dia, 1.6mm thickness hot dip galvanized conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
6	a	20 mm	1	Mtr	220.00
7	b	25 mm	1	Mtr	270.00
8	c	32 mm	1	Mtr	413.00
	ELEC-1.1.4	Supply of ISI, ----- dia, 2.0mm thickness hot dip galvanized conduit pipe as per IS 9537 Part II / 1981. Makes : NAI / Bharath / GB / BEC			
9	a	40 mm	1	Mtr	660.00
10	b	50 mm	1	Mtr	770.00
	ELEC-1.1.5	Supply of ----- MS Junction box normal range big size long neck.			
11	a	19 / 20 mm	1	No	39.00
12	b	25 mm	1	No	44.00
13	c	32 mm	1	No	110.00
14	d	40 / 38 mm	1	No	165.00
15	e	50 mm	1	No	320.00
	ELEC-1.1.6	Supply of-----MS Junction deep box.			
16	a	20/25 mm	1	No	100.00
17	b	32 mm	1	No	176.00
18	c	40 mm	1	No	215.00
19	d	50 mm	1	No	260.00
	ELEC-1.1.7	Supply of-----MS Inspection Bends.			
20	a	19/20 mm	1	No	33.00
21	b	25 mm	1	No	37.00
22	c	32 mm	1	No	81.00
23	d	40/38 mm	1	No	125.00
24	e	50 mm	1	No	270.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-1.1.8	Supply of-----MS Inspection Tee.			
25	a	19/20 mm	1	No	37.00
26	b	25 mm	1	No	41.00
27	c	32 mm	1	No	110.00
28	d	40/38 mm	1	No	134.00
29	e	50 mm	1	No	275.00
	ELEC-1.1.9	Supply of-----MS Inspection Elbow.			
30	a	19/20 mm	1	No	29.00
31	b	25 mm	1	No	30.00
32	c	32 mm	1	No	88.00
33	d	40/38 mm	1	No	110.00
34	e	50 mm	1	No	242.00
	ELEC-1.1.10	Supply of MS Inspection 10 Guage G.I. checknut size			
35	a	19/20 mm	100	Nos	308.00
36	b	25 mm	100	Nos	385.00
37	c	32 mm	100	Nos	781.00
38	d	40/38 mm	100	Nos	1183.00
39	e	50 mm	100	Nos	1859.00
	ELEC-1.1.11	Supply of-----Saddles with Base.			
40	a	19/20 mm	100	Nos	308.00
41	b	25 mm	100	Nos	319.00
42	c	32 mm	100	Nos	594.00
43	d	40/38 mm	100	Nos	1012.00
44	e	50 mm	100	Nos	1282.00
	ELEC-1.1.12	Supply of-----20 guage Saddles.			
45	a	19/20 mm	100	Nos	171.00
46	b	25 mm	100	Nos	215.00
47	c	32 mm	100	Nos	352.00
48	d	40/38 mm	100	Nos	468.00
49	e	50 mm	100	Nos	605.00
	ELEC-1.1.13	Supply of-----16 Guage socket coupler.			
50	a	19/20 mm	12	Nos	88.00
51	b	25 mm	12	Nos	105.00
52	c	32 mm	12	Nos	242.00
53	d	38 mm	12	Nos	429.00
54	e	40 mm	12	Nos	248.00
55	f	50 mm	12	Nos	704.00
	ELEC-1.1.14	Supply of-----Ball Socket.			
56	a	19 mm	12	Nos	369.00
57	b	25 mm	12	Nos	545.00
	ELEC-1.1.15	Supply of Galvanised Steel flexible --- ----- mm conduit pipe			
58	a	20 mm	1	No	51.00

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59	b	25 mm	1	No	78.00
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61	d	40 mm	1	No	105.00
62	e	50 mm	1	No	156.00
	1.2	PVC CONDUIT PIPES & CASING AND CAPING			
	ELEC-1.2.1	Supply of ISI -----outer dia heavy grade with IS:9537 part 3 rigid PVC pipe. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Universal / Million Plast / Goldmedal / GM / DEC / Beljin			
63	a	20 mm	1	Mtr	37.00
64	b	25 mm	1	Mtr	47.00
	ELEC-1.2.2	Supply of ISI ----- outer dia medium grade, with IS:9537 part 3 rigid PVC pipe. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Universal / Million Plast / Goldmedal / GM / DEC / Beljin			
65	a	20 mm	1	Mtr	26.00
66	b	25 mm	1	Mtr	34.00
67	c	32 mm	1	Mtr	53.00
68	d	40 mm	1	Mtr	74.00
69	e	50 mm	1	Mtr	105.00
	ELEC-1.2.3	Supply of ----- SWR reinforced Flexible Conduit Pipe. Make: Precision or its equivalent as approved by the department			
70	a	20 mm	1	Mtr	70.00
71	b	25 mm	1	Mtr	90.00
72	c	32 mm	1	Mtr	117.00
73	d	40 mm	1	Mtr	135.00
74	e	50 mm	1	Mtr	160.00
	ELEC-1.2.4	Supply of ----- PVC Flexible Couplings. Make: Precision or its equivalent as approved by the department			
75	a	19/20 mm	1	No	16.00
76	b	25 mm	1	No	21.00
77	c	32 mm	1	No	37.00
78	d	38/40 mm	1	No	42.00
79	e	50 mm	1	No	79.00
	ELEC-1.2.5	Supply of ----- width and height Casing and Caping with all accessories such as Ts, Bends, Elbows etc., complete for finished item of work.Makes : Modi with ISI or its equivalent make as approved by the department			
80	a	19/20mm x 12 mm and thickness 1.2 mm	1	Mtr	37.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
81	b	25mm x 12 mm and thickness 1.2 mm	1	Mtr	42.00
82	c	32mm x 16 mm and thickness 1.2 mm	1	Mtr	48.00
83	d	38/40mm x 16 mm and thickness 1.5 mm	1	Mtr	84.00
84	e	50mm x 16 mm and thickness 1.5 mm	1	Mtr	110.00
	ELEC-1.2.6	Supply of----- PVC Junction Boxes Normal. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Million / Goldmedal / GM / DEC / Beljin			
85	a	19 / 20 mm	1	No	26.00
86	b	25 mm	1	No	29.00
87	c	32 mm	1	No	50.00
88	d	40 mm	1	No	53.00
89	e	50 mm	1	No	74.00
	ELEC-1.2.7	Supply of PVC Junction Boxes Deep size Makes : Sudhakar / Finolex / Modi / VIP / Precision / Million / Goldmedal / GM / DEC / Beljin			
90	a	19 / 20 mm	1	No	34.00
91	b	25 mm	1	No	37.00
92	c	32 mm	1	No	58.00
93	d	40 mm	1	No	63.00
94	e	50 mm	1	No	91.00
	ELEC-1.2.8	Supply of ----- dia Medium grade PVC Bends. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Million / Goldmedal / GM / DEC / Beljin			
95	a	19 / 20 mm	1	No	8.00
96	b	25 mm	1	No	13.00
	ELEC-1.2.9	Supply of ----- dia Heavy Grade PVC Bends. Makes : Sudhakar / Finolex / Modi / VIP / Precision / Million / Goldmedal / GM / DEC / Beljin			
97	a	32 mm	1	No	26.00
98	b	40 mm	1	No	32.00
99	c	50 mm	1	No	42.00
100	ELEC-1.2.10	Dummy Cover to PVC junction boxes	1	No	6.00
	Note:	If Non-ISI Pipes / Non-ISI Casing & capping are used during execution of work, for arriving the Non-ISI Pipe / Non - ISI casing & capping rates 20% may be deducted from the finished Cost data of ISI Pipe.			
	1.3	HOT DIP GALVANIZED METAL BOXES (MODULAR)			
	ELEC-1.3.1	Supply of ----- Module box Makes : Similar to Switches Make			
101	a	1 or 2	1	No	84.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
102	b	3	1	No	116.00
103	c	4	1	No	137.00
104	d	6	1	No	189.00
105	e	8 or 9 (Horizontal / Vertical)	1	No	247.00
106	f	12	1	No	299.00
		SURFACE MOUNTED PVC MODULAR GANG BOX			
	ELEC-1.3.2	Supply of Surface Mounted PVC Modular Gang Box Makes : Similar to Switches Make			
107	a	1 or 2	1	No	71.00
108	b	3	1	No	101.00
109	c	4	1	No	121.00
110	d	6	1	No	163.00
111	e	8 or 9	1	No	210.00
112	f	12	1	No	257.00
		MODULAR COVER FRAMES			
	ELEC-1.3.3	Supply of ----- Modular Cover Frame. Makes : Legrand Arteur / Schneider Zen celo / Honeywell Blenge Plus / Crabtree Murano / Logus Platina / Gold Medal GIFA / GM-Zenova / LK Englaze / Million M-Vee			
113	a	1 or 2	1	No	85.00
114	b	3	1	No	105.00
115	c	4	1	No	120.00
116	d	6	1	No	180.00
117	e	8 or 9	1	No	230.00
118	f	12	1	No	285.00
119	g	16	1	No	315.00
120	h	18	1	No	345.00
	ELEC-1.3.4	Supply of ----- Modular Cover Frame. Makes : Legrand Lyncus / GM Four Five / Goldmedal Curve / Million Milltech / Anchor Roma Plus / Crabtree Verona / Panasonic Vision / Hager Insista / Benlo Vesta / Primo / CPL Vysma / Polycab Levana / Salzar - Elite / Elleys E-Soft / Fybros Four-X			
121	a	1 or 2	1	No	75.00
122	b	3	1	No	95.00
123	c	4	1	No	110.00
124	d	6	1	No	150.00
125	e	8 or 9	1	No	185.00
126	f	12	1	No	230.00
127	g	16	1	No	260.00
128	h	18	1	No	290.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		METALLIC BOXES (MS)			
	ELEC-1.3.5	Supply of ----- Metal Box			
129	a	4" x 4"	1	No	68.00
130	b	4" x 7"	1	No	79.00
131	c	6" x 6"	1	No	100.00
132	d	6" x 8"	1	No	137.00
133	e	8" x 10"	1	No	242.00
134	f	10" x 12"	1	No	305.00
	1.4	WOODEN BOARDS			
	ELEC-1.4.1	Supply of Wooden Deep Boards / Wooden Deep Boxes of following Size or its equivalent.			
135	a	4" x 4"	1	No	12.00
136	b	4" x 7"	1	No	20.00
137	c	6" x 6"	1	No	24.00
138	d	6" x 8"	1	No	34.00
139	e	8" x 10"	1	No	53.00
140	f	10" x 12"	1	No	81.00
141	g	12" x 15"	1	No	122.00
	ELEC-1.4.2	Supply of Decolam Board of Size or its equivalent.			
142	a	4" x 4"	1	No	16.00
143	b	4" x 7"	1	No	27.00
144	c	6" x 6"	1	No	37.00
145	d	6" x 8"	1	No	48.00
146	e	8" x 10"	1	No	81.00
147	f	10" x 12"	1	No	122.00
148	g	12" x 15"	1	No	182.00
	ELEC-1.4.3	Supply of Peeta Board of Size ----- or its equivalent.			
149	a	9" x 14"	1	No	60.00
150	b	12" x 10"	1	No	62.00
151	c	15" x 20"	1	No	210.00
152	d	18" x 24"	1	No	303.00
153	e	18" x 30"	1	No	380.00
		SCREWS			
	ELEC-1.4.4	Supply of No.8 Screws of size-----			
154	a	12 mm.	100	Nos	84.00
155	b	25 mm.	100	Nos	105.00
156	c	30 mm.	100	Nos	131.00
157	d	35/38 mm.	100	Nos	142.00
158	e	50 mm.	100	Nos	163.00
159	f	63/75 mm.	100	Nos	200.00
	1.5	COPPER FLEXIBLE CABLES (AS PER IS:694)			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-1.5.1	Supply of ----- HFFR PVC insulated 1100V grade as per IS:694 / 2010, IS 17048 specification for Copper cable. Makes : Finolex / RR kabel / Havells / Polycab/Beljin / Finecab Gold / GM / Gold Medal / Million / KEI / V-Guard ./ DEC / Bonton / Avocab / Fortune Arrt / Sudhakar / Nakoda / HPL / GLOSTER / Rajnigandha / Pawancab / South King			
160	a	1.5 Sqmm Class - II Conductor	100	Mtrs	2530.00
161	b	2.5 Sqmm Class - II Conductor	100	Mtrs	4095.00
162	c	4.0 Sqmm	100	Mtrs	6250.00
163	d	6.0 Sqmm	100	Mtrs	9230.00
164	e	10.0 Sqmm	100	Mtrs	15260.00
165	f	16.0 Sqmm	100	Mtrs	24110.00
	ELEC-1.5.2	Supply of ----- HFFR PVC insulated 1100V grade as per IS:694 / 2010 specification for Copper cable. Makes : RPG / Anchor / Power Flex / Sun Cab / / Benlo / Gemini / Unistar / Windsor / Payal / SPM / Elleys / Fybros			
166	a	1.5 Sqmm Class - II Conductor	100	Mtrs	2110.00
167	b	2.5 Sqmm Class - II Conductor	100	Mtrs	3420.00
168	c	4.0 Sqmm	100	Mtrs	5270.00
169	d	6.0 Sqmm	100	Mtrs	7865.00
170	e	10.0 Sqmm	100	Mtrs	12810.00
171	f	16.0 Sqmm	100	Mtrs	21315.00
	ELEC-1.5.3	Supply of ----- HFFR PVC insulated 1100V grade as per IS:694 / 2010 specification for Copper cable. Makes : Khanthi / Vimal / Stanjo / Orbit / Marison / Q-FLX / Vasura / Corus / Vasavi			
172	a	1.5 Sqmm	100	Mtrs	1720.00
173	b	2.5 Sqmm	100	Mtrs	2760.00
174	c	4.0 Sqmm	100	Mtrs	4150.00
175	d	6.0 Sqmm	100	Mtrs	6230.00
176	e	10.0 Sqmm	100	Mtrs	10560.00
177	f	16.0 Sqmm	100	Mtrs	16190.00
178	ELEC-1.5.4	Supply of 23 / 0060 , 3 core (0.15 mm dia of each lead) twisted / flat heavy Copper wire. Makes : Finolex / RR Kabel / Havells / Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Pawancab	100	Mtrs	1390.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		NOTE 1 : If FR Wires are used instead of HFFR during execution of work, for arriving the FR Flexible wires rates 20% may be deducted from the finished Cost data of Light / Fan / Separate Plug Points and Run of mains. NOTE 2 : If FRLSH (FRLS) Wires are used instead of HFFR during execution of work, for arriving the FRLSH (FRLS) Flexible wires rates 15% may be deducted from the finished Cost data of Light / Fan / Separate Plug Points and Run of mains. NOTE 3 : If Class - II conductor Wires are not used 5% may be deducted from the finished Cost data of Light / Fan / Separate Plug Points and Run of mains.			
		SHEATHED COPPER CABLES			
	ELEC-1.5.5	Supply of PVC / XLPE Insulated Sheathed Multi Core Bright Annealed Bare Copper Conductor Heavy Duty Industrial Cables for Voltage Grade upto 1100 Volts as per IS: 694:2010 including all transportation charges etc complete. Makes : Finolex / RR kabel / Havells / Polycab / RPG / KEI / Gloster / V-Guard / Finecab / SPM / Gemini / Unistar / Windsor / Payal / Fortune Arrt / Avocab / Pawancab / Nakoda / HPL / Sudhakar / Bonton / Rajnigandha			
179	a	10 Sqmm Single Core	1	Mtr	154.00
180	b	16 Sqmm Single Core	1	Mtr	248.00
181	c	25 Sqmm Single Core	1	Mtr	385.00
182	d	35 Sqmm Single Core	1	Mtr	539.00
183	e	50 Sqmm Single Core	1	Mtr	770.00
184	f	70 Sqmm Single Core	1	Mtr	1045.00
185	g	1.5 Sqmm 2 core	1	Mtr	66.00
186	h	2.5 Sqmm 2 Core	1	Mtr	110.00
187	i	4.0 Sqmm 2 Core	1	Mtr	154.00
188	j	6.0 Sqmm 2 Core	1	Mtr	220.00
189	k	10.0 Sqmm 2 Core	1	Mtr	385.00
190	l	16.0 Sqmm 2 Core	1	Mtr	473.00
191	m	1.5 Sqmm 3 core	1	Mtr	94.00
192	n	2.5 Sqmm 3 Core	1	Mtr	154.00
193	o	4.0 Sqmm 3 Core	1	Mtr	215.00
194	p	6.0 Sqmm 3 Core	1	Mtr	308.00
195	q	10.0 Sqmm 3 Core	1	Mtr	418.00
196	r	16.0 Sqmm 3 Core	1	Mtr	660.00
197	s	1.5 Sqmm 4 Core	1	Mtr	120.00
198	t	2.5 Sqmm 4 Core	1	Mtr	193.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
199	u	4.0 Sqmm 4 Core	1	Mtr	292.00
200	v	6.0 Sqmm 4 Core	1	Mtr	429.00
201	w	10.0 Sqmm 4 Core	1	Mtr	770.00
202	x	16.0 Sqmm 4 Core	1	Mtr	979.00
203	y	25.0 Sqmm 4 Core	1	Mtr	1606.00
204	z	35.0 Sqmm 4 Core	1	Mtr	2409.00
205	aa	50.0 Sqmm 4 Core	1	Mtr	3180.00
206	ab	70.0 Sqmm 4 Core	1	Mtr	4543.00
	ELEC-1.5.6	Supply of PVC / XLPE Insulated Sheathed Multi Core Bright Annealed Bare Copper Conductor Heavy Duty Industrial Cables for Voltage Grade upto 1100 Volts as per IS: 694:2010 including all transportation charges etc complete. Makes : Sun cab / Powerflex / / South King			
207	a	10 Sqmm Single Core	1	Mtr	143.00
208	b	16 Sqmm Single Core	1	Mtr	220.00
209	c	25 Sqmm Single Core	1	Mtr	352.00
210	d	35 Sqmm Single Core	1	Mtr	506.00
211	e	50 Sqmm Single Core	1	Mtr	699.00
212	f	70 Sqmm Single Core	1	Mtr	996.00
213	g	1.5 Sqmm 2 core	1	Mtr	66.00
214	h	2.5 Sqmm 2 Core	1	Mtr	99.00
215	i	4.0 Sqmm 2 Core	1	Mtr	143.00
216	j	6.0 Sqmm 2 Core	1	Mtr	209.00
217	k	10.0 Sqmm 2 Core	1	Mtr	352.00
218	l	16.0 Sqmm 2 Core	1	Mtr	440.00
219	m	1.5 Sqmm 3 core	1	Mtr	88.00
220	n	2.5 Sqmm 3 Core	1	Mtr	149.00
221	o	4.0 Sqmm 3 Core	1	Mtr	198.00
222	p	6.0 Sqmm 3 Core	1	Mtr	297.00
223	q	10.0 Sqmm 3 Core	1	Mtr	396.00
224	r	16.0 Sqmm 3 Core	1	Mtr	611.00
225	s	1.5 Sqmm 4 Core	1	Mtr	110.00
226	t	2.5 Sqmm 4 Core	1	Mtr	171.00
227	u	4.0 Sqmm 4 Core	1	Mtr	270.00
228	v	6.0 Sqmm 4 Core	1	Mtr	407.00
229	w	10.0 Sqmm 4 Core	1	Mtr	715.00
230	x	16.0 Sqmm 4 Core	1	Mtr	924.00
231	y	25.0 Sqmm 4 Core	1	Mtr	1518.00
232	z	35.0 Sqmm 4 Core	1	Mtr	2272.00
233	aa	50.0 Sqmm 4 Core	1	Mtr	2970.00
234	ab	70.0 Sqmm 4 Core	1	Mtr	4191.00
		SHEATHED ARMoured COPPER CABLES			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-1.5.7	Supply of PVC / XLPE Insulated Armoured Copper cable as per IS 7098 / Part-I / 1988 including all transportation charges etc complete. Makes : Finolex / RR kabel / Havells / Polycab / RPG / KEI / Gloster / V-Guard / Finecab / SPM / Gemini / Unistar / Windsor / Payal / Fortune Arrt / Avocab / Nakoda / HPL / Sudhakar / Bonton / Rajnigandha / Pawancab / South King			
235	a	1.5 Sqmm 2 Core	1	Mtr	105.00
236	b	2.5 Sqmm 2 Core	1	Mtr	127.00
237	c	4.0 Sqmm 2 Core	1	Mtr	198.00
238	d	6.0 Sqmm 2 Core	1	Mtr	259.00
239	e	10.0 Sqmm 2 Core	1	Mtr	429.00
240	f	16.0 Sqmm 2 Core	1	Mtr	583.00
241	g	1.5 Sqmm 3 Core	1	Mtr	132.00
242	h	2.5 Sqmm 3 Core	1	Mtr	171.00
243	i	4.0 Sqmm 3 Core	1	Mtr	222.00
244	j	6.0 Sqmm 3 Core	1	Mtr	341.00
245	k	10.0 Sqmm 3 Core	1	Mtr	446.00
246	l	16.0 Sqmm 3 Core	1	Mtr	627.00
247	m	1.5 Sqmm 4 Core	1	Mtr	165.00
248	n	2.5 Sqmm 4 Core	1	Mtr	215.00
249	o	4.0 Sqmm 4 Core	1	Mtr	319.00
250	p	6.0 Sqmm 4 Core	1	Mtr	440.00
251	q	10.0 Sqmm 4 Core	1	Mtr	792.00
252	r	16.0 Sqmm 4 Core	1	Mtr	1342.00
253	s	25.0 Sqmm 4 Core	1	Mtr	2079.00
254	t	35.0 Sqmm 4 Core	1	Mtr	2849.00
255	u	50.0 Sqmm 4 Core	1	Mtr	4037.00
256	v	70.0 Sqmm 4 Core	1	Mtr	6204.00
257	w	2.5 Sqmm 8 Core	1	Mtr	380.00
258	x	2.5 Sqmm 16 Core	1	Mtr	506.00
259	y	1.5 Sqmm 10 Core	1	Mtr	319.00
260	z	1.5 Sqmm 16 Core	1	Mtr	468.00
	ELEC-1.5.8	Supply of PVC / XLPE Insulated, Armoured Copper cable as per IS 7098 / Part-I / 1988 including all transportation charges etc complete. Makes : Airson / Rhino			
261	a	1.5 Sqmm 2 Core	1	Mtr	88.00
262	b	2.5 Sqmm 2 Core	1	Mtr	121.00
263	c	4.0 Sqmm 2 Core	1	Mtr	182.00
264	d	6.0 Sqmm 2 Core	1	Mtr	237.00
265	e	10.0 Sqmm 2 Core	1	Mtr	396.00
266	f	16.0 Sqmm 2 Core	1	Mtr	550.00
267	g	1.5 Sqmm 3 Core	1	Mtr	121.00
268	h	2.5 Sqmm 3 Core	1	Mtr	154.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
269	i	4.0 Sqmm 3 Core	1	Mtr	209.00
270	j	6.0 Sqmm 3 Core	1	Mtr	308.00
271	k	10.0 Sqmm 3 Core	1	Mtr	396.00
272	l	16.0 Sqmm 3 Core	1	Mtr	567.00
273	m	1.5 Sqmm 4 Core	1	Mtr	149.00
274	n	2.5 Sqmm 4 Core	1	Mtr	198.00
275	o	4.0 Sqmm 4 Core	1	Mtr	286.00
276	p	6.0 Sqmm 4 Core	1	Mtr	407.00
277	q	10.0 Sqmm 4 Core	1	Mtr	743.00
278	r	16.0 Sqmm 4 Core	1	Mtr	1221.00
279	s	25.0 Sqmm 4 Core	1	Mtr	1661.00
280	t	35.0 Sqmm 4 Core	1	Mtr	2448.00
281	u	50.0 Sqmm 4 Core	1	Mtr	3493.00
282	v	70.0 Sqmm 4 Core	1	Mtr	5236.00
283	w	2.5 Sqmm 8 Core	1	Mtr	325.00
284	x	2.5 Sqmm 16 Core	1	Mtr	446.00
285	y	1.5 Sqmm 10 Core	1	Mtr	297.00
286	z	1.5 Sqmm 16 Core	1	Mtr	446.00
	1.6	SERVICE MAINS AND FLAT CABLE OF ISI FOR SUBMERSIBLE MOTORS.			
	ELEC-1.6.1	Supply of ----- WPSC (Weather Proof Single Core) ISI mark Alluminium Wire. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Stanjo / Rajnigandha / Orbit / Beljin / Pawancab			
287	a	2.5 Sqmm	100	Mtrs	1008.00
288	b	6.0 Sqmm	100	Mtrs	2042.00
289	c	10.0 Sqmm	100	Mtrs	2205.00
290	d	16 Sqmm	100	Mtrs	3675.00
	ELEC-1.6.2	Supply of ----- WPTC (Weather Proof Twin Core) ISI mark Alluminium Wire. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Nakoda / Payal / Finecab / Gemini / Vimal / Suncab / Stanjo / Rajnigandha / Orbit / Beljin / Pawancab			
291	a	6 Sqmm	100	Mtrs	4116.00
292	b	10 Sqmm	100	Mtrs	4956.00
	ELEC-1.6.3	Supply of 3 Core ----- Flat Copper cable of ISI for Submersible Motors. Makes : Finolex / RR Kabel / Havells / KEI / LK / Pawancab			
293	a	1.5 Sqmm	100	Mtrs	8440.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
294	b	2.5 Sqmm	100	Mtrs	13020.00
295	c	4.0 Sqmm	100	Mtrs	19457.00
296	d	6.0 Sqmm	100	Mtrs	28610.00
297	e	10.0 Sqmm	100	Mtrs	46360.00
	ELEC-1.6.4	Supply of 3 Core ----- Flat Copper cable of ISI for Submersible Motors. Makes : Polycab / GM / Million / V-Guard / Gold Medal / Kundancab / HPL / RPG / Nandicab / Payal / Finecab / Gemini / Vimal / Suncab / / Stanjo/ Nakoda / Beljin / Pawancab			
298	a	1.5 Sqmm	100	Mtrs	8012.00
299	b	2.5 Sqmm	100	Mtrs	12306.00
300	c	4.0 Sqmm	100	Mtrs	18459.00
301	d	6.0 Sqmm	100	Mtrs	27185.00
302	e	10.0 Sqmm	100	Mtrs	44070.00
	1.7	FLUSH TYPE SWITCHES AND ACCESSORIES			
	ELEC-1.7.1	Supply of ----- -- Makes : GM G Home / Gold Medal Olive / Million Zoom / Anchor Penta Cherry / Great white Omega / HPL / Vimal / CPL.			
303	a	6A 1 Way flush type Swich.	1	No	20.00
304	b	6A 2 Way flush type Swich.	1	No	23.00
305	c	6A 2 pin flush type Socket.	1	No	22.00
306	d	6A 3/2 pin flush type Socket with shutter.	1	No	29.00
307	e	6A flush type Neon Indicator.	1	No	22.00
308	f	6A Triangle Plug Top .	1	No	40.00
309	g	6A 1 Way flush type Bed Swich / Bell Push.	1	No	23.00
310	h	16A flush type Swich.	1	No	72.00
311	i	16A flush type Socket with shutter.	1	No	72.00
312	j	16A flush type Switch Socket combined (2 in one).	1	No	112.00
313	k	16A Triangle Plug Top.	1	No	56.00
314	l	Stepped type Electronic Regulator.	1	No	242.00
315	m	3 Plate Jumbo Ceiling Rose.	1	No	25.00
316	n	BH / SBH.	1	No	25.00
317	o	Pendent Holder / Adopter.	1	No	25.00
318	p	Telephone Jack with Connector	1	No	55.00
319	q	TV Antenna Outlet.	1	No	30.00
320	r	15A /10A Flush type Fuse.	1	No	36.00
321	s	32A Flush type DP switch	1	No	118.00
	ELEC-1.7.2	Supply of ----- Makes : GM / Million / Gold Medal / Anchor / Great white.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
322	a	Buzzer.	1	No	60.00
323	b	Ding Dong Bell.	1	No	125.00
324	c	Electronic Musical Bell.	1	No	280.00
325	d	Remote Bell.	1	No	675.00
326	e	MC Holder.	1	No	25.00
327	f	Spike Guard with 1 No Switch and 4 Nos Sockets.	1	No	570.00
328	g	Spike Guard with 4 No Switches and 4 Nos Sockets.	1	No	850.00
	1.8	MINI MODULAR SWITCHES AND ACCESSORIES			
	ELEC-1.8.1	Supply of ----- Makes : GM / Anchor / Million / Vimal / Gold Medal / CPL / Great White.			
329	a	6A 1 Way Mini Modular Switch with Cover Frame.	1	No	25.00
330	b	6A 2 Way Mini Modular Switch with Cover Frame.	1	No	29.00
331	c	6A 2 Pin Mini Modular Socket with Cover Frame.	1	No	26.00
332	d	6A 3/2 Pin Mini Modular Socket with Cover Frame.	1	No	39.00
333	e	6A Mini Modular Neon Indicator with Cover Frame.	1	No	31.00
334	f	6A Mini Modular Bed Switch / Bell Push with Cover Frame.	1	No	29.00
335	g	6A 1 Way Mini Modular Switch with Neon Indicator with Cover Frame.	1	No	31.00
336	h	6A Mini Modular Bell Push with Neon Indicator with Cover Frame.	1	No	43.00
337	i	16A Mini Modular Switch with Cover Frame.	1	No	87.00
338	j	16A (2 in one) Mini Modular Switch & Socket combined with Cover Frame.	1	No	119.00
339	k	16A Triangle Top with Cover Frame.	1	No	53.00
340	l	Mini Modular Stepped type Electronic Regulator with Cover Frame.	1	No	261.00
341	m	Mini Modular Telephone Jack with Connector with Cover Frame.	1	No	58.00
342	n	Mini Modular TV Antenna Outlet with Cover Frame.	1	No	39.00
343	o	16A/10A Mini Modular Flush Fuse with Cover Frame.	1	No	44.00
	1.9	MODULAR SWITCHES AND ACCESSORIES			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-1.9.1	Supply of ----- -- Makes : Legrand Arteor / Schneider Zen celo / Honeywell Blenge Plus / Crabtree Murano / Logus Platina / Gold Medal GIFA / GM-Zenova/ LK - Englaze / Million M-Vee			
344	a	6 / 10A 1 Way 1 Module Modular Switch	1	No	137.00
345	b	6 / 10A 2 Way 1 Module Modular Switch.	1	No	147.00
346	c	6 / 10A 2 Pin 2 Module Modular Socket.	1	No	137.00
347	d	6 / 10A 3 Pin 2 Module Modular Socket with shutter.	1	No	205.00
348	e	10A 1 Module Modular Switch with Neon Indicator.	1	No	168.00
349	f	10A Modular Bell Push with Neon Indicator.	1	No	200.00
350	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1	No	179.00
351	h	16A / 20A 1 Way 1 Module Modular Switch.	1	No	179.00
352	i	16A / 20A 2 Way 1 Module Modular Switch.	1	No	200.00
353	j	20A 1 Way 1 Module Modular Switch with Indicator.	1	No	200.00
354	k	20A 2 Module Modular Socket with shutter.	1	No	273.00
355	l	16A / 6A 1 way 2 Module Combi Socket Modular Socket with shutter.	1	No	284.00
356	m	16A Triangle Top.	1	No	231.00
357	n	2 Module Modular type Electronic Fan Regulator.	1	No	683.00
358	o	Modular socket type Telephone jack with Connector.	1	No	147.00
359	p	Modular co-Axial socket type TV Antenna outlet.	1	No	147.00
360	q	25 to 32A Modular type Motor Starter Switch	1	No	730.00
361	r	Modular type buzzer	1	No	137.00
	ELEC-1.9.2	Supply of ----- Makes : Legrand Lyncus / GM Four Five / Million Milltech / Goldmedal Curve / Anchor Roma Plus / Crabtree Verona / Panasonic Vision / Hager Insista / Benlo Vesta / Polycab Levana / Salzar Elite / Elleys E-Soft / Fybros Four-X			
362	a	6 / 10A 1 Way 1 Module Modular Switch	1	No	89.00
363	b	6 / 10A 2 Way 1 Module Modular Switch.	1	No	105.00
364	c	10A 2 Pin 2 Module Modular Socket.	1	No	89.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
365	d	10A 3 Pin 2 Module Modular Socket with shutter.	1	No	131.00
366	e	10A 1 Module Modular Switch with Neon Indicator.	1	No	105.00
367	f	10A Modular Bell Push with Neon Indicator.	1	No	126.00
368	g	16A / 10A Modular Flush Fuse with Neon Indicator.	1	No	116.00
369	h	16A / 20A 1 Way 1 Module Modular Switch.	1	No	116.00
370	i	16A / 20A 2 Way 1 Module Modular Switch.	1	No	137.00
371	j	20A 1 Way 1 Module Modular Switch with Indicator.	1	No	126.00
372	k	20A 2 Module Modular Socket with shutter.	1	No	189.00
373	l	16A / 6A 1 way 2 Module Combi Socket Modular Socket with shutter.	1	No	189.00
374	m	16A Triangle Top.	1	No	95.00
375	n	2 Module Modular type Electronic Fan Regulator.	1	No	525.00
376	o	Modular socket type Telephone jack with Connector.	1	No	95.00
377	p	Modular co-Axial socket type TV Antenna outlet.	1	No	89.00
378	q	25 to 32A Modular type Motor Starter Switch	1	No	625.00
379	r	Modular type buzzer	1	No	126.00
		SECTION - 2			
	2.1	PANEL MOUNTING SWITCH DISCONNECTOR FUSE UNITS (SDFU) AS PER IS: 13947			
	ELEC-2.1.1	Supply of ----- TPN Switch Disconnecter Fuse Unit Cubical type without fuses. Makes : LK / SCHNEIDER / / ABB / SIEMENS / BCH			
380	a	32A	1	No	1435.00
381	b	63A	1	No	2450.00
382	c	125A	1	No	5855.00
383	d	200A	1	No	7665.00
384	e	250A	1	No	9175.00
385	f	400A	1	No	14110.00
386	g	630A	1	No	23925.00
	ELEC-2.1.2	Supply of ----- TPN Switch Disconnecter Fuse Unit Cubical type without fuses. Makes : Havells / HPL / Indo Asian / Standard / Million			
387	a	32A	1	No	1215.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
388	b	63A	1	No	1765.00
389	c	125A	1	No	4080.00
390	d	200A	1	No	6075.00
391	e	250A	1	No	6850.00
392	f	400A	1	No	10460.00
393	g	630A	1	No	17365.00
	2.2	CHANGEOVER SWITCHES			
		ON LOAD CHANGEOVER SWITCHES (OPEN EXECUTION) AS PER IS:13947 (Part I & III)			
	ELEC-2.2.1	Supply of-----4 Pole Change Over Switch on Load with open Execution. Makes : Socomec / LK			
394	a	63 A	1	No	6300.00
395	b	125 A	1	No	11850.00
396	c	200 A	1	No	15840.00
397	d	250A	1	No	22450.00
398	e	400A	1	No	34300.00
399	f	630A	1	No	40800.00
	ELEC-2.2.2	Supply of----- 4 Pole Change Over Switch on Load with open Execution. Makes : ABB / Siemens / Havells / Indo Asian / HPL / Standard / / Benlo.			
400	a	32A	1	No	2170.00
401	b	63A	1	No	5690.00
402	c	125A	1	No	11070.00
403	d	200A	1	No	14600.00
404	e	250A	1	No	20750.00
405	f	400A	1	No	32300.00
406	g	630A	1	No	38600.00
		OFF LOAD CHANGE OVER SWITCHES IN SS ENCLOSURE AS PER IS:13947			
	ELEC-2.2.3	Supply of ----- Off load Changeover Switch in sheet steel enclosure. Makes : HPL/Havells/Indo Asian/Sputnik			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
407	a	32A 240V DP	1	No	1435.00
408	b	63A 415V FP	1	No	4980.00
409	c	100A 415V FP	1	No	7640.00
	ELEC-2.2.4	Supply of ----- Off load Changeover Switch in sheet steel enclosure. Makes : Million / Benlo / Gold Medal / Star/ Standard.			
410	a	32A 240V DP	1	No	820.00
411	b	63A 415V FP	1	No	2890.00
412	c	100A 415V FP	1	No	5440.00
		AUTOMATIC TRANSFER SWITCHES (ATS) confirming to IEC 60947- 6-1			
	ELEC-2.2.5	Supply and Fixing of fully enclosed Automatic Transfer Switch (ATS) confirming to IEC 60947- 6-1 utilization cat AC 330 prewired with flexible settings and seamless transfer between two power sources. The enclosure made of powder coated of necessary size. The switch comprising of Electricity Board / Diesel Generator priority Source selection, adjustable time delay 100ms, Ductable break contact system offering high short time withstand (ICW) with necessary terminal shrouds, phase barriers and source separators, protections of under voltage / over voltage, phase sequence, single Phrasing, frequency variation. There should be sufficient space for cable termination. Three phase, 415V capability to expand with RS 485 communication module, which ensures real time communication of data. Makes : Socomec / LK			
		Open Execution			
413	a	100A	1	No	31800.00
414	b	125A	1	No	33600.00
415	c	160A	1	No	41650.00
416	d	200A	1	No	55800.00
417	e	315A	1	No	66100.00
418	f	400A	1	No	76370.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
419	g	630A	1	No	99000.00
		With Enclosure			
420	a	100A	1	No	35750.00
421	b	125A	1	No	37800.00
422	c	160A	1	No	45570.00
423	d	200A	1	No	59740.00
424	e	315A	1	No	69990.00
425	f	400A	1	No	83820.00
426	g	630A	1	No	106500.00
	ELEC-2.2.6	Supply ,Installation,Testing & Commissioning of -----ACCL-Automatic Changeover and Current Limiter is DIN-Rail mounted in Polycarbonate housing.When the main supply fails and stand by Generator supply is on,it automatically connectss the DG power and monitor the load.When ever the load current exceeds preset limit, power must be automatically switched off for 8/10/12 seconds , and then automatically restore when the load current receds. It is Microprocessor based. Pre trip LED indication.-----, 50Hz Single Phase Power Supply.Conforming to IEC 60947-6,iec 60947-3. Extremely energy efficient by consuming negligible power without heating.Minimum time delay setting for main transfer as added safety Makes : Legrand / Schneider / BCH / Havells Crabtree			
427	a	25 A DP, Operating range 190V-270V	1	No	1000.00
428	b	40 A DP, Operating range 190V-270V	1	No	1500.00
429	c	25 A FP, Operating range 320V-430V	1	No	1900.00
430	d	40 A FP, Operating range 320V-430V	1	No	3000.00
	2.3	REWIRABLE / DOUBLE BREAK SWITCHES IN SS ENCLOSURE AS PER IS:13947			
	ELEC-2.3.1	Supply of ----- Rewirable Fuse Switch in SS enclosure. Makes : HPL / Havells / Indo Asian /			
431	a	32A 240V SPN	1	No	1020.00
432	b	32A 415V TPN	1	No	1580.00
433	c	63A 415V TPN	1	No	3580.00
434	d	100A 415V TPN	1	No	6670.00
	ELEC-2.3.2	Supply of ----- Double Break Switch in SS enclosure without fuses. Makes : HPL / Havells / Indo Asian /			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
435	a	100A 415V TPN	1	No	6670.00
436	b	200A 415V TPN	1	No	9825.00
	ELEC-2.3.3	Supply of ----- Rewirable Fuse Switch in SS enclosure. Makes : GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star.			
437	a	32A 240V SPN	1	No	680.00
438	b	32A 415V TPN	1	No	1120.00
439	c	63A 415V TPN	1	No	2550.00
440	d	100A 415V TPN	1	No	4980.00
	ELEC-2.3.4	Supply of ----- Double Break Switch in SS enclosure without fuses. Makes : GM / Million / Sputnik / Sigma / Gold Medal / Benlo / Star.			
441	a	100A 415V TPN	1	No	5100.00
442	b	200A 415V TPN	1	No	8370.00
	2.4	HRC FUSE LINKS (BOLTED TYPE)			
	ELEC-2.4.1	Supply of ----- HRC Fuse Links. Makes : L & T / C & S / Standard / HPL / Havells / Siemens / Indo Asian.			
443	a	Up to 32A	1	No	60.00
444	b	32A to 63A	1	No	90.00
445	c	100A to 200A	1	No	290.00
446	d	250A to 350A	1	No	410.00
447	e	400A	1	No	800.00
448	f	630A	1	No	1615.00
	2.5	PORCELAIN REWIRABLE FUSE UNITS.			
	ELEC-2.5.1	Supply of ----- Porcelain Rewirable Fuse Units. Makes : / GM / Sputnik / Kundancab / Million / Gold Medal / Vimal / Star / Benlo.			
449	a	32A 240V	1	No	110.00
450	b	32A 415V	1	No	145.00
451	c	63A 415V	1	No	300.00
452	d	100A 415V	1	No	560.00
	ELEC-2.5.2	Supply of ----- Porcelain Rewirable Fuse Units with extension strip. Makes : / GM / Sputnik / Kundancab / Million / Gold Medal / Vimal / Star / Benlo.			
453	a	200A 415V	1	No	1020.00
454	b	300A 415V	1	No	1345.00
	2.6	VOLTAGE SURGE PROTECTORS			
	ELEC-2.6.1	Supply of ----- Voltage Surge Protector. Make : Legrand / Siemens / Hager / LK .			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
455	a	2 Pole 2 Module 40 KA	1	No	2910.00
456	b	4 Pole 4 Module 40 KA	1	No	4516.00
457	c	2 Pole 2 Module 15/16 KA	1	No	1926.00
458	d	4 Pole 4 Module 15/16 KA	1	No	3620.00
	2.7	Arc Fault Detection Device (AFDD)			
	ELEC-2.7.1	Supply of arc fault detection device with ----- Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / LK Exora / BCH / Havells Stadx			
459	a	16 A - 40 A combined 1 phase + neutral MCB + AFDD	1	No	11500.00
460	b	16 A - 40 A combined 1 phase + neutral RCBO + AFDD	1	No	13800.00
	2.8	PANEL MOUNTING MCCBs			
	ELEC-2.8.1	Supply of ----- -- Adjustable, Confirms to IS/IEC 60947-2 having Breaking Capacity ----- -----kA with thermal magnetic release Panel Mounted. Makes : LK - D sine / Schneider-NS NSX/Legrand -DP X3/ Siemens-3V / Hager-h3 / -Winbreak / BCH / Havells / Eaton			
461	a	63A 3 Pole MCCB, 16kA	1	No	9600.00
462	b	63A 4 Pole MCCB, 16kA	1	No	10790.00
463	c	125A 3 Pole MCCB, 25kA	1	No	11380.00
464	d	125A 4 Pole MCCB, 25kA	1	No	13770.00
465	e	160A 3 Pole MCCB, 25kA	1	No	15100.00
466	f	160A 4 Pole MCCB, 25kA	1	No	19715.00
467	g	250A 3 Pole MCCB, 35/36kA	1	No	25360.00
468	h	250A 4 Pole MCCB, 35/36kA	1	No	32940.00
469	i	400A 3 Pole MCCB, 35/36kA	1	No	34320.00
470	j	400A 4 Pole MCCB, 35/36kA	1	No	41470.00
471	k	630A 3 Pole MCCB, 50kA	1	No	49440.00
472	l	630A 4 Pole MCCB, 50kA	1	No	61190.00
473	m	800A 3 Pole MCCB, 50kA	1	No	88150.00
474	n	800A 4 Pole MCCB, 50kA	1	No	97680.00
	ELEC-2.8.2	Supply of ----- -- Adjustable, Confirms to IS/IEC 60947-2 having Breaking Capacity ----- -----kA with thermal magnetic release Panel Mounted. Makes : HPL / Indo Asian / Benlo			
475	a	63A 3 Pole MCCB, 16kA	1	No	6695.00
476	b	63A 4 Pole MCCB, 16kA	1	No	8970.00
477	c	125A 3 Pole MCCB, 25kA	1	No	8750.00
478	d	125A 4 Pole MCCB, 25kA	1	No	11500.00
479	e	160A 3 Pole MCCB, 25kA	1	No	11870.00
480	f	160A 4 Pole MCCB, 25kA	1	No	15985.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
481	g	250A 3 Pole MCCB, 35/36kA	1	No	23460.00
482	h	250A 4 Pole MCCB, 35/36kA	1	No	28500.00
483	i	400A 3 Pole MCCB, 35/36kA	1	No	30100.00
484	j	400A 4 Pole MCCB, 35/36kA	1	No	36220.00
485	k	630A 3 Pole MCCB, 50kA	1	No	41330.00
486	l	630A 4 Pole MCCB, 50kA	1	No	50050.00
487	m	800A 3 Pole MCCB, 50kA	1	No	72650.00
488	n	800A 4 Pole MCCB, 50kA	1	No	81050.00
	2.9	RCCBs CONFIRMS TO IEC : 61008 AND IS : 12640			
	ELEC-2.9.1	Supply of ----- Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / LK Exora / BCH / ABB / Havells / Eaton			
489	a	40A 2 Pole RCCB 30mA.	1	No	4568.00
490	b	40A 2 Pole RCCB 100mA.	1	No	4909.00
491	c	40A 4 Pole RCCB 30mA.	1	No	5030.00
492	d	40A 4 Pole RCCB 100mA.	1	No	5303.00
493	e	63A 2 Pole RCCB 30mA.	1	No	5581.00
494	f	63A 2 Pole RCCB 100mA.	1	No	5628.00
495	g	63A 4 Pole RCCB 30mA.	1	No	5943.00
496	h	63A 4 Pole RCCB 100mA.	1	No	6762.00
	ELEC-2.9.2	Supply of ----- Makes : HPL(Techno) / Hager / Indo Asian (Gold Plus) / / Honeywell sentry / / Benlo.			
497	a	40A 2 Pole RCCB 30mA.	1	No	3644.00
498	b	40A 2 Pole RCCB 100mA.	1	No	3586.00
499	c	40A 4 Pole RCCB 30mA.	1	No	4478.00
500	d	40A 4 Pole RCCB 100mA.	1	No	4326.00
501	e	63A 2 Pole RCCB 30mA.	1	No	4909.00
502	f	63A 2 Pole RCCB 100mA.	1	No	4704.00
503	g	63A 4 Pole RCCB 30mA.	1	No	5108.00
504	h	63A 4 Pole RCCB 100mA.	1	No	4982.00
	2.10	RCBOs CONFIRMS to IEC:61008 AND IS:12640			
	ELEC-2.10.1	Supply of ----- Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / LK Exora / Cabtree / ABB / Eaton / Havells			
505	a	40A 2 Pole RCBO 30mA.	1	No	7350.00
506	b	40A 2 Pole RCBO 100mA.	1	No	8030.00
507	c	40A 4 Pole RCBO 30mA.	1	No	8035.00
508	d	40A 4 Pole RCBO 100mA.	1	No	8830.00
509	e	63A 2 Pole RCBO 30mA.	1	No	8783.00
510	f	63A 2 Pole RCBO 100mA.	1	No	9303.00
511	g	63A 4 Pole RCBO 30mA.	1	No	9850.00
512	h	63A 4 Pole RCBO 100mA.	1	No	10050.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
513	ELEC-2.10.2	Supply of MCB type Change Over Switch 20A Double Pole 2 way 400V AC suitable to fix on Din Channel.Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / LK Exora / Cabtree / ABB / Eaton / Havells	1	No	2910.00
	2.11	PANEL MOUNTING ACBs (Microprocessor Based)			
	ELEC-2.11.1	Supply of ----- Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection. Makes : Siemens (Sentron- 3W) / LK U Power / Schneider Master Pact / ABB Emax / Legrand DMX3 / BCH / Eaton / Havells			
514	a	630A 3 Pole, 50kA, electrically fixed	1	No	118200.00
515	b	630A 3 Pole, 50kA, electrically drawout	1	No	157990.00
516	c	630A 4 Pole, 50kA, electrically fixed	1	No	147040.00
517	d	630A 4 Pole, 50kA, electrically drawout	1	No	196050.00
518	e	800A 3 Pole, 50kA, electrically drawout	1	No	167210.00
519	f	800A 4 Pole, 50kA, electrically drawout	1	No	206420.00
520	g	1000A 3 Pole, 50kA, electrically drawout	1	No	175290.00
521	h	1000A 4 Pole, 50kA, electrically drawout	1	No	220270.00
522	i	1250A 3 Pole, 50kA, electrically drawout	1	No	235260.00
523	j	1250A 4 Pole, 50kA, electrically drawout	1	No	288300.00
524	k	1600A 3 Pole, 50kA, electrically drawout	1	No	260625.00
525	l	1600A 4 Pole, 50kA, electrically drawout	1	No	311360.00
526	m	2000A 3 Pole, 50kA, electrically drawout	1	No	303300.00
527	n	2000A 4 Pole, 50kA, electrically drawout	1	No	369030.00
528	o	2500A 3 Pole, 50kA, electrically drawout	1	No	403620.00
529	p	2500A 4 Pole, 50kA, electrically drawout	1	No	495110.00
530	q	3200A 3 Pole, 50kA, electrically drawout	1	No	419770.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
531	r	3200A 4 Pole, 50kA, electrically drawout	1	No	527400.00
	ELEC-2.11.2	Supply of ----- Air Circuit Breaker Confirms to IS 13947-2, IEC 60947-2 and BS-EN 60947 with Micro processor based having over load, shot circuit and earth fault Protection Makes : HPL / Hager / Indo Asian.			
532	a	630A 3 Pole, 50kA, electrically fixed	1	No	107250.00
533	b	630A 3 Pole, 50kA, electrically drawout	1	No	143000.00
534	c	630A 4 Pole, 50kA, electrically fixed	1	No	136220.00
535	d	630A 4 Pole, 50kA, electrically drawout	1	No	176445.00
536	e	800A 3 Pole, 50kA, electrically drawout	1	No	149920.00
537	f	800A 4 Pole, 50kA, electrically drawout	1	No	186825.00
		SPREADER LINKS			
	ELEC-2.11.3	Supply and Transportation of spreader links			
538	a	125 A 3 pole	1	Set	270.00
539	b	125 A 4 pole	1	Set	360.00
540	c	160 A 3 pole	1	Set	720.00
541	d	160 A 4 pole	1	Set	900.00
542	e	250 A 3 pole	1	Set	765.00
543	f	250 A 4 pole	1	Set	1020.00
544	g	400 A 3 pole	1	Set	1360.00
545	h	400 A 4 pole	1	Set	1700.00
546	i	630 A 3 pole	1	Set	1700.00
547	j	630 A 4 pole	1	Set	2040.00
		ROTARY HANDLES			
	ELEC-2.11.4	Supply and Transportation of Rotary Handles			
548	a	Upto 160 A	1	Set	1450.00
549	b	200 A - 320 A	1	Set	2000.00
550	c	400 A - 630 A	1	Set	2600.00
	2.12	RAISING MAINS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-2.12.1	Supply, instalation, testing and commisioning of Amp, ... kA breaking capacity (100% Neutral busbar) air insulated compact Raising mains/Bus Duct system made of CRCA sheet/Hot Galvanized steel enclosure of thickness not less than 0.8 mm having degree of protection of IP 55 as per IEC/EN 61439-6, PVC / Plastic insulated reinforced with glass fibre four strip ALUMINIUM busbar in convinient sections including necessary end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc.,with necessary joints Fire barrier at each floor Provision of tapping at each floor/every meter,continuous earthing with 2 nos alluminium strip of suitable size (one on each side) including GI clamping brackets,angle iron brackets,steel fastners,connecting to earth system as required Makes: Legrand (Zucchini) / Schneider			
551	a	400Amp, 50 - 53KA	1	Mtr	11115.00
552	b	630Amp, 50 - 63KA	1	Mtr	13100.00
553	c	800 Amp, 50 - 76KA	1	Mtr	14860.00
554	d	1000 Amp, 50 - 76KA	1	Mtr	16500.00
555	e	1250 Amp, 50 - 76KA	1	Mtr	17130.00
556	f	1600 Amp, 50 - 76KA	1	Mtr	21420.00
557	ELEC-2.12.2	Supply and Fixing of Spring Bracket with fixing kit for Air Insulated Busduct / Raising Mains. Makes: Legrand (Zucchini) / Schneider	1	No	6300.00
	ELEC-2.12.3	Supply and Fixing of Amps Horizontal / Vertical bends for Air Insulated Bus Duct .Makes: Legrand (Zucchini) / Schneider			
558	a	400Amp, 50 - 53kA	1	No	12600.00
559	b	630Amp, 50 - 63kA	1	Mtr	13105.00
560	c	800 Amp, 50 - 76kA	1	No	14865.00
561	d	1000 Amp, 50 - 76kA	1	No	16510.00
562	e	1250 Amp, 50 - 76kA	1	No	17140.00
563	f	1600 Amp, 50 - 76kA	1	No	21420.00
564	ELEC-2.12.4	Supply and Fixing of Spring Bracket with fixing kit for Air Insulated Busduct / Raising Mains. Makes: Legrand (Zucchini) / Schneider	1	No	6300.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-2.12.5	Supply and Fixing of Amps Horizontal / Vertical bends for Air Insulated Bus Duct. Makes: Legrand (Zucchini) / Schneider			
565	a	400Amp,	1	No	12600.00
566	b	630Amp,	1	No	14365.00
567	c	800 Amp,	1	No	14995.00
568	d	1000 Amp,	1	No	17515.00
569	e	1250 Amp,	1	No	18915.00
570	f	1600 Amp,	1	No	21295.00
	ELEC-2.12.6	Supply and Fixing of Amps Tap off box for Air Insulated Busduct. Makes : Legrand (Zucchini) / Schneider			
571	a	125Amp,	1	No	16110.00
572	b	250Amp,	1	No	23105.00
573	c	400 Amp,	1	No	31920.00
574	d	630 Amp,	1	No	35280.00
	2.13	SANDWITCH BUSDUCT / RAISING MAIN			
	ELEC-2.13.1	Supply, instalation, testing and commisioning of Amp, ...kA breaking capacity (100% Neutral busbar) sandwich busduct system made of CRCA sheet / Hot Galvanized steel encloser of thickness not less than 1.5mm having degree of protection of IP 55 as per IEC/EN 61439-6. The junction contacts made from Tin + Copper Plated for each phase, insulated with Class F (155 ° C) thermo setting plastic material, insulated ALUMINIUM busbar in convinient sections including end cover units suitable for 415 volts 3 phase, 4 wire, 50 Hz A.C. System,etc., with necessary joints, Provision of tapping at each floor / every meter, continuous earthing with 2 nos alluminium strips of suitable size (one on each side) including GI clamping brackets, angle iron brackets, steel fastners, connecting to earth system as required . Makes: Legrand / LK / Schneider / Siemens			
575	a	400A 36/40 kA	1	No	18000.00
576	b	600 / 630A 36/40 kA	1	No	19000.00
577	c	800A 42/50 kA	1	No	21000.00
578	d	1000A 50 kA	1	No	22500.00
579	e	1250A 50 kA	1	No	23500.00
580	f	1600A 50 / 60 kA	1	No	29500.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
581	g	2000A 80 kA	1	No	36000.00
582	h	2500A 120 / 150 kA	1	No	52000.00
583	i	3200A 120 / 150 kA	1	No	60000.00
584	j	4000 A, 120 / 150 kA	1	No	70000.00
585	k	5000 A, 120 / 150 kA	1	No	80000.00
		NOTE : If it is outdoor bus duct of IP 65, add 10% extra on above			
	ELEC-2.13.2	Supply and Fixing of Amps Horizontal / Vertical bends for sandwich Bus Duct . Makes: Legrand / LK / Schiender / Siemens.			
586	a	630A	1	No	16500.00
587	b	800A	1	No	17500.00
588	c	1000A	1	No	18500.00
589	d	1250A	1	No	20000.00
590	e	1600A	1	No	22800.00
591	f	2000A	1	No	26600.00
592	g	2500A	1	No	33700.00
593	h	3200A	1	No	40700.00
594	i	4000 A	1	No	47000.00
	ELEC-2.13.3	Supply and Fixing of Amps Copper Flexibles for three phases and neutral for Air Insulated / sandwich Busduct .			
595	a	400A	1	Set	22000.00
596	b	630A	1	Set	23500.00
597	c	800A	1	Set	25000.00
598	d	1000A	1	Set	28000.00
599	e	1250A	1	Set	32000.00
600	f	1600A	1	Set	38000.00
601	g	2000A	1	Set	44000.00
602	h	2500A	1	Set	51000.00
603	i	3200A	1	Set	58500.00
604	j	4000 A	1	Set	65500.00
605	k	5000 A	1	Set	70000.00
	ELEC-2.13.4	Supply and fixing of Flange end for Amps for Air insulated Busdusts . Makes: Legrand / Schiender / Siemens.			
606	a	400Amp,	1	No	14000.00
607	b	630Amp,	1	No	18000.00
608	c	800 Amp,	1	No	21000.00
	ELEC-2.13.5	Supply and fixing of Flange end for Amps for Sandwich Busdusts . Makes: Legrand / LK / Schiender / Siemens.			
609	a	400A	1	No	16000.00
610	b	630A	1	No	23500.00
611	c	800A	1	No	27500.00
612	d	1000A	1	No	29000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
613	e	1250A	1	No	31500.00
614	f	1600A	1	No	33700.00
615	g	2000A	1	No	36500.00
616	h	2500A	1	No	41000.00
617	i	3200A	1	No	48500.00
618	j	4000 A	1	No	57800.00
619	j	5000 A	1	No	66000.00
	ELEC-2.13.6	Supply and Fixing of Amps Tap off box for Sandwich Busduct without MCCB Makes: Legrand / LK / Schiender / Siemens..			
620	a	160A	1	No	14500.00
621	b	250A	1	No	24500.00
622	c	400A	1	No	27500.00
623	d	630A	1	No	33500.00
	ELEC-2.13.7	Supply and Fixing of Amps end cover for Sandwich Busduct Makes: Legrand / LK / Schiender / Siemens.			
624	a	400A - 4000A	1	No	13000.00
	ELEC-2.13.8	Supply and Fixing of Amps expansion joint for Sandwich Busduct Makes: Legrand / LK / Schiender / siemens.			
625	a	400A	1	No	95700.00
626	b	630A	1	No	95700.00
627	c	800A	1	No	103500.00
628	d	1000A	1	No	106500.00
629	e	1250A	1	No	106600.00
630	f	1600A	1	No	110700.00
631	g	2000A	1	No	116500.00
632	h	2500A	1	No	117600.00
633	i	3200A	1	No	150500.00
634	j	4000 A	1	No	163000.00
	ELEC-2.13.9	Supply and Fixing of Amps rubber bellows for Sandwich Busduct Makes : Legrand / LK / Schiender / Siemens.			
635	a	400A - 4000A	1	No	17500.00
	2.14	MCBs (AS PER IS:60898-1:2002)			
	ELEC-2.14.1	Supply of -----10 kA, C/D Curve ISI Mark. Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / LK Exora / BCH / Havells Stadx			
636	a	6-32A SP MCB	1	No	340.00
637	b	40 A SP MCB	1	No	720.00
638	c	50-63A SP MCB	1	No	746.00
639	d	6-32A DP MCB	1	No	1010.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
640	e	40A DP MCB	1	No	1640.00
641	f	50-63A DP MCB	1	No	1700.00
642	g	6-32A TP MCB	1	No	1544.00
643	h	40 A TP MCB	1	No	2390.00
644	i	50-63A TP MCB	1	No	2494.00
645	j	6-32A FP MCB	1	No	2070.00
646	k	40A FP MCB	1	No	3070.00
647	l	50-63A FP MCB	1	No	3310.00
	ELEC-2.14.2	Supply of -----10 kA, C/D Curve ISI Mark. Makes : ABB / HPL(Techno) / Hager / Honeywell sentry / Benlo / Salzar			
648	a	6-32A SP MCB	1	No	263.00
649	b	40A SP MCB	1	No	583.00
650	c	50-63A SP MCB	1	No	683.00
651	d	6-32A DP MCB	1	No	824.00
652	e	40A DP MCB	1	No	1129.00
653	f	50-63A DP MCB	1	No	1208.00
654	g	6-32A TP MCB	1	No	1323.00
655	h	40A TP MCB	1	No	1843.00
656	i	50-63A TP MCB	1	No	1943.00
657	j	6-32A FP MCB	1	No	1712.00
658	k	40A FP MCB	1	No	2310.00
659	l	50-63A FP MCB	1	No	2415.00
	ELEC-2.14.3	Supply of ----- 10 kA, C/D Curve ISI Mark. Makes : Gold Medal / GM / Milltec / Sputnik / Stanjo Amron.			
660	a	6-32A SP MCB	1	No	184.00
661	b	40A SP MCB	1	No	326.00
662	c	50-63A SP MCB	1	No	420.00
663	d	6-32A DP MCB	1	No	494.00
664	e	40A DP MCB	1	No	735.00
665	f	50-63A DP MCB	1	No	840.00
666	g	6-32A TP MCB	1	No	893.00
667	h	40A TP MCB	1	No	1391.00
668	i	50-63A TP MCB	1	No	1470.00
669	j	6-32A FP MCB	1	No	1155.00
670	k	40A FP MCB	1	No	1628.00
671	l	50-63A FP MCB	1	No	1733.00
	2.15	ISOLATORS CONFIRMS TO I E C 60947 PART-III			
	ELEC-2.15.1	Supply of -----Isolator. Makes : Legrand-DX3 / Schneider-Acti9 / Siemens / LK Exora / Havells Stadx / Indo Asian / BCH			
672	a	32A DP	1	No	578.00
673	b	40A DP	1	No	620.00
674	c	63A DP	1	No	824.00
675	d	40A TP	1	No	1061.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
676	e	63A TP	1	No	1229.00
677	f	40A FP	1	No	1381.00
678	g	63A FP	1	No	1512.00
679	h	100A FP	1	No	1617.00
	ELEC-2.15.2	Supply of -----Isolator. Makes : ABB / HPL(Techno) / Hager / / Honeywell sentry / Salzar			
680	a	32A DP	1	No	515.00
681	b	40A DP	1	No	541.00
682	c	63A DP	1	No	672.00
683	d	40A TP	1	No	935.00
684	e	63A TP	1	No	956.00
685	f	40A FP	1	No	1097.00
686	g	63A FP	1	No	1181.00
687	h	100A FP	1	No	1486.00
	ELEC-2.15.3	Supply of -----Isolator. Makes : Gold Medal / GM / Milltec / Sputnik / Benlo / Stanjo Amron.			
688	a	32A DP	1	No	357.00
689	b	40A DP	1	No	420.00
690	c	63A DP	1	No	567.00
691	d	40A TP	1	No	614.00
692	e	63A TP	1	No	693.00
693	f	40A FP	1	No	924.00
	2.16	SPN DISTRIBUTION BOARDS(AS PER IS:13032)			
	2.16.1	Supply of ----- - Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incomer with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, din bars and detachable gland plate etc complete with inter connections. Makes : Legrand / Schneider / Siemens / LK / Havells Stadx / ABB / BCH			
694	a	4 Way SPN DB with IP 20 4 Nos	1	No	1412.00
695	b	4 Way SPN DB with IP 43 4 Nos	1	No	1838.00
696	c	8 Way SPN DB with IP 20 8 Nos	1	No	1628.00
697	d	8 Way SPN DB with IP 43, 8 Nos	1	No	2310.00
698	e	12 Way SPN DB with IP 20 12 Nos	1	No	1937.00
699	f	12 Way SPN DB with IP 43 12 Nos	1	No	2793.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	2.16.2	Supply of ----- - Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incomer with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, din bars and detachable gland plate etc complete with inter connections. Makes : HPL / Hager / Indo Asian (Gold Plus) / / Honeywell sentry / Benlo / Panasonic.			
700	a	4 Way SPN DB with IP 20 Nos 4	1	No	866.00
701	b	4 Way SPN DB with IP 43 Nos 4	1	No	1507.00
702	c	8 Way SPN DB with IP 20 Nos 8	1	No	1134.00
703	d	8 Way SPN DB with IP 43 Nos 8	1	No	2100.00
704	e	12 Way SPN DB with IP 20 Nos 12	1	No	1286.00
705	f	12 Way SPN DB with IP 43 Nos 12	1	No	2504.00
	2.16.3	Supply of ----- - Protection as per IS:13032 and suitable for-----S.P out goings and for 1 No Incomer with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, din bars and detachable gland plate etc complete with inter connections. Makes : Gold Medal / GM / Milltec / Sputnik / Stanjo Amron.			
706	a	4 Way SPN DB with IP 20 Nos 4	1	No	609.00
707	b	4 Way SPN DB with IP 43 Nos 4	1	No	1034.00
708	c	8 Way SPN DB with IP 20 Nos 8	1	No	830.00
709	d	8 Way SPN DB with IP 43 Nos 8	1	No	1407.00
710	e	12 Way SPN DB with IP 20 Nos 12	1	No	1019.00
711	f	12 Way SPN DB with IP 43 Nos 12	1	No	1780.00
	2.17	TPN / VTPN DISTRIBUTION BOARDS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	2.17.1	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incomer (FP Isolator / MCB) with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections. Makes : Legrand / Schneider / Siemens / LK / Hager / Havells Stadx / ABB / / BCH			
712	a	(8+12) 4 Way TPN DB Horizontal with IP 20 12 Nos	1	No	2909.00
713	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	4830.00
714	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	7109.00
715	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	7938.00
	2.17.2	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No 4 pole Isolater / MCB Incomer with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections.complete Makes : Legrand / Schneider / Siemens / LK / Hager / Havells Stadx / ABB / / BCH			
716	a	4 Way VTPN DB with IP 43	1	No	12264.00
717	b	6 Way VTPN DB with IP 43	1	No	13860.00
718	c	8 Way VTPN DB with IP 43	1	No	15750.00
	2.17.3	Supply of ----- Protection as per IS:13032 and suitable for accommodating T.P. / S.P. as out goings and 125A / 160A 4 pole MCCB as Incomer with 250 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections. Makes : Legrand / Schneider / Siemens / LK / Hager / Havells Stadx / BCH			
719	a	4 Way VTPN DB with IP 43	1	No	16622.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
720	b	6 Way VTPN DB with IP 43	1	No	18480.00
721	c	8 Way VTPN DB with IP 43	1	No	20895.00
	2.17.4	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections. Makes : GE / HPL / Benlo / Panasonic / / Indo Asian (Gold Plus) / Honeywell sentry			
722	a	(8+12) 4 Way TPN DB Horizontal with IP 20/30, 12 Nos	1	No	2710.00
723	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	4263.00
724	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	5670.00
725	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	6460.00
	2.17.5	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No (FP Isolator / MCB) incomer with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections. Makes : GE / HPL / Hager / Indo Asian (Gold Plus) / Honeywell sentry / Benlo.			
726	a	4 Way VTPN DB with IP 43	1	No	10090.00
727	b	8 Way VTPN DB with IP 43	1	No	12285.00
	2.17.6	Supply of ----- Protection as per IS:13032 and suitable for ----- S.P. out goings and for 1 No 4 pole Incommer (FP Isolator / MCB) with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections. Makes : Gold Medal / GM / Miltec / Sputnik / Stanjo Amron.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
728	a	(8+12) 4 Way TPN DB Horizontal with IP 20, 12 Nos	1	No	2289.00
729	b	(8+12) 4 Way TPN DB Horizontal with IP 43, 12 Nos	1	No	2972.00
730	c	(8+18) 6 Way TPN DB Horizontal with IP 43, 18 Nos	1	No	3875.00
731	d	(8+24) 8 Way TPN DB Horizontal with IP 43, 24 Nos	1	No	4557.00
	2.17.7	Supply of ----- Protection as per IS:13032 and suitable for T.P. / S.P. out goings and for 1 No (FP Isolator / MCB) Incomer with 100 A tinned copper busbar, neutral bar, earth bar and cable ties for cable management, fully shrouded neutral bar, profile blanking modules for unused MCB ways, din bars and detachable gland plate etc complete with inter connections. Makes : Gold Medal / GM / Miltec / Sputnik / Stanjo Amron.			
732	a	4 Way VTPN DB with IP 43	1	No	5850.00
733	b	8 Way VTPN DB with IP 43	1	No	9314.00
	2.17.8	Supply of -----Plug and Socket with SS enclosure. Makes : Legrand / Schneider / Siemens / LK / Hager / Havells Stadx / ABB / / BCH			
734	a	20A SP	1	No	1670.00
735	b	20A TP	1	No	3150.00
736	c	32A TP	1	No	3707.00
	2.17.9	Supply of -----Plug and Socket with Sheet Steel enclosure. Makes : HPL / Benlo / Panasonic / / Indo Asian (Gold Plus) / Honeywell sentry			
737	a	20A SP	1	No	1066.00
738	b	20A TP	1	No	2163.00
739	c	32A TP	1	No	2709.00
	2.17.10	Supply of -----Plug and Socket with Sheet Steel enclosure. Makes : Gold Medal / GM / Milltec / Sputnik.			
740	a	20A SP	1	No	810.00
741	b	20A TP	1	No	1680.00
742	c	32A TP	1	No	2342.00
	2.17.11	Supply of ----- Metal Enclosure with IP 20 Protection. Makes : Legrand / Schneider / Siemens / LK / Hager/ Havells Stadx / ABB			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
743	a	SP	1	No	504.00
744	b	DP/TP/FP	1	No	714.00
	2.17.1 2	Supply of ----- Metal Enclosure with IP 20 Protection. Makes : HPL / Benlo / Panasonic / / Indo Asian (Gold Plus) / Honeywell sentry			
745	a	SP	1	No	452.00
746	b	DP/TP/FP	1	No	662.00
	2.17.1 3	Supply of ----- Metal Enclosure with IP 20 Protection. Makes : Gold Medal / GM / Milltec / Sputnik.			
747	a	SP	1	No	410.00
748	b	DP/TP/FP	1	No	567.00
		SECTION - 3			
	3.1	POST TOP LED LUMINAIRES			
749	ELEC-3.1.1	Supply of 15-20W aesthetically designed LED post top lantern with die cast aluminium spigot, prismatic diffuser etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Havells / Phillips / K Lite / Wipro / VSTP / T Lite	1	No	6367.00
750	ELEC-3.1.2	Supply of 30-35W decorative LED post top lantern with die cast aluminium spigot, spun aluminium powder coated top cover, aluminium pressure die cast heat sink, opel PC diffuser and clear acrylic etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Havells / Phillips / K Lite / Wipro / VSTP / T Lite	1	No	10190.00
751	ELEC-3.1.3	Supply of 40-45W decorative LED post top lantern with die cast aluminium spigot, spun aluminium powder coated top cover, aluminium pressure die cast heat sink, opel PC diffuser and clear acrylic etc suitable for pole mounting complete with all accessories. Makes : Crompton / Bajaj / Surya / Havells / Phillips / Panasonic / Halonix / K Lite / Wipro / Jaquar / VSTP / T Lite.	1	No	12100.00
	3.2	AUTOMATIC STREET LIGHT CONTROL SYSTEMS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.2.1	Supply and fixing of Automatic Street Light Control System based on daywise users settable mode of astronomical timer or digital timer Optical Micro Sensor, Low voltage / High voltage trip and reset, operating voltage 150 - 280V AC, 50 HZ and shall withstand surge level of 8 KV. The electronic controller with IP 65 protection and suitable SMC / PC enclosure with IP 54 protection, MCBs of Legrand / Schneider / LK / Siemens / BCH of 10kA C curve and Contactor suitable to control the load of ----- Single phase load with necessary hardware, Allen key set and clamping arrangements with 3 years warranty. Makes : Swadep / Light Mate / Havells			
752	a	1 KW	1	No	9400.00
753	b	3 KW	1	No	10240.00
754	c	5 KW	1	No	11290.00
755	d	8 KW	1	No	13755.00
		Note : The agency should submit the test reports issued by the NABL approved labs of ETDC / CPRI and with bar code along with warranty letter.			
	ELEC-3.2.2	Supply and fixing of Automatic Street Light Control System based on daywise users settable mode of astronomical timer or digital timer Optical Micro Sensor, Low voltage / High voltage trip and reset, operating voltage 380 - 480V AC, 50 HZ and shall withstand surge level of 8 KV. The electronic controller with IP 65 protection and suitable SMC / PC enclosure with IP 54 protection, MCBs of Legrand / Schneider / LK / Siemens / BCH of 10kA C curve and Contactor suitable to control the load ----- Three phase load with necessary hardware, Allen key set and clamping arrangements. Makes : Swadep / Light Mate / Havells			
756	a	3 KW	1	No	11550.00
757	b	5 KW	1	No	13650.00
758	c	8 KW	1	No	15750.00
759	d	12 KW	1	No	17850.00
760	e	15 KW	1	No	19950.00
761	f	25 KW	1	No	26250.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.2.3	Supply and fixing of Automatic Street Light Control System based on daywise users settable mode of astronomical timer or digital timer Optical Micro Sensor, Low voltage / High Voltage trip and reset operating voltage 150 - 280V AC, shall withstand upto 8 KV , rated for the load current of 12A of single phase with necessary arrangements etc complete. The electronic controller shall have IP 65 protection.Makes : Swadeep / Light Mate / Havells			
762	a	SLASM-01-10A /equivalent (Dusk to Dawn)	1	No	3230.00
763	b	SLASM-02-10A /equivalent (Time setting after 4 hr)	1	No	4180.00
764	c	SLASM-03-10A /equivalent (Time setting 4hr, 6Hr, 8Hr)	1	No	3895.00
765	d	SLAST-04-10A /equivalent (Time setting / Dusk to dawn)	1	No	4230.00
766	e	SLAST-05-10A /equivalent (Time setting / Dusk to dawn)	1	No	5177.00
	ELEC-3.2.4	Supply and fixing of Automatic Street Light Control system with CCMS to schedule the timing of lights (Reprogrammed based on astronomical clock or on field or through central control), ON / OFF switch (On field or centrally). CCMS system to capture the energy usage and other parameters at predetermined interval and store data for 30 days, download data in field via mobile app or mobile dash board, system protection against surges, upgrade formway on field using a communication device via WIFI / GSM and GPRS low voltage / High Voltage Trip, Overload cutoff and operating voltage 382 - 450 Volts, 50 Hzs with SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider/ Hager, single pole C curve of breaking capacity 10 kA and power contactor / Latching Relay suitable to control the load ----- KW of single phase / three phase with necessary clamping arrangement. etc complete. Makes : Swadeep / Light Mate / iScientific Techsolutions Labs / Havells / Schnell			
767	a	3 KW	1	No	13466.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
768	b	5 KW	1	No	16160.00
769	c	8 KW	1	No	19750.00
770	d	12 KW	1	No	23340.00
771	e	15 KW	1	No	26035.00
772	f	18 KW	1	No	29626.00
773	g	25 KW	1	No	37705.00
	ELEC-3.2.5	Supply and fixing of Automatic Street Light Control system with smart energy meter / CCMS to schedule the timing of lights (Reprogrammed based on astronomical clock or on field or through central control), ON / OFF switch (On field or centrally). CCMS system to capture the energy usage and other parameters at predetermined interval and store data for 30 days, download data in field via mobile app or mobile dash board, system protection against surges, upgrade formway on field using a communication device via WIFI / GSM and GPRS low voltage / High Voltage Trip, Overload cutoff and operating voltage 382 - 450 Volts, 50 Hzs with SMC enclosure of IP 54 protection, MCBs of Legrand / Schneider/ Hager, single pole C curve of breaking capacity 10 kA and power contactor / Latching Relay suitable to control the load ----- KW of single phase / three phase with necessary clamping arrangement. etc complete.Makes : Swadep / Light Mate / iScientific Techsolutions Labs / Havells			
774	a	3 KW	1	No	22444.00
775	b	5 KW	1	No	25137.00
776	c	8 KW	1	No	28728.00
777	d	12 KW	1	No	32320.00
778	e	15 KW	1	No	35020.00
779	f	18 KW	1	No	38600.00
780	g	25 KW	1	No	46690.00
	3.3	LED LUMINAIRES INDOOR			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.1	Supply and transportation of ----- -- LED Spot Light Recessed mounting with housing made of Powder coated Pressure die cast aluminium, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Artt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
781	a	5 W / 6 W +/-10% (>= 500 Lumens)	1	No	534.00
782	b	7 - 9 W +/-10% (>= 700 Lumens)	1	No	833.00
783	c	12 W +/-10% (>= 1200 Lumens)	1	No	846.00
	ELEC-3.3.2	Supply and transportation of ----- LED Spot Light Recessed mounting with housing made of Powder coated Pressure die cast aluminium, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Renesola / RR Electric			
784	a	5 W / 6 W +/-10% (>= 450 Lumens)	1	No	340.00
785	b	7 - 9 W +/-10% (>= 630 Lumens)	1	No	750.00
786	c	12 W +/-10% (>= 1080 Lumens)	1	No	770.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.3	Supply and transportation of ----- ---- LED Spot Light Recessed mounting with housing made of Powder coated Pressure die cast aluminium , IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / Kiran / Benlo / TurtLED / Victoria / Ex-Kburn / Glo LED			
787	a	5 W / 6 W +/-10% (>= 400 Lumens)	1	No	310.00
788	b	7 - 9 W +/-10% (>= 560 Lumens)	1	No	580.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.4	Supply and transportation of ----- ----- back lit LED Down Light Recessed / Surface mounting round / square with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Arrt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
789	a	12 W +/-10% (>= 1200 Lumens)	1	No	1220.00
790	b	15 W +/-10% (>= 1500 Lumens)	1	No	1300.00
791	c	18 W +/-10% (>= 1800 Lumens)	1	No	1500.00
792	d	24 W +/-10% (>= 2400 Lumens)	1	No	1690.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.5	Supply and transportation of ----- back lit LED Down Light Recessed / Surface mounting round/ square with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Renesola / RR Electric			
793	a	12 W +/-10% (>= 1080 Lumens)	1	No	920.00
794	b	18 W +/-10% (>= 1620 Lumens)	1	No	1070.00
	ELEC-3.3.6	Supply and transportation of ----- back lit LED Down Light Recessed / Surface mounting with housing made of Powder coated Pressure die cast aluminium housing with extended heat sink, with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of > 80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / Kiran / Benlo / Victoria / Accent / Deepal / TurtLED / Ex-Kburn / Glo LED			
795	a	12 W +/-10% (>= 960 Lumens)	1	No	615.00
796	b	18 W +/-10% (>= 1440 Lumens)	1	No	845.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.7	Supply and transportation of ----- edge lit LED slimline panel light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Arrt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
797	a	6W +/-10% (>= 540 Lumens)	1	No	480.00
798	b	12W +/-10% (>= 1080 Lumens)	1	No	655.00
799	c	15W +/-10% (>= 1350 Lumens)	1	No	874.00
800	d	18W +/-10% (>= 1620 Lumens)	1	No	950.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.8	Supply and transportation of ----- edge lit LED slimline panel Light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >80 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Renesola / RR Electric			
801	a	12W +/-10% (>= 960 Lumens)	1	No	541.00
802	b	18W +/-10% (>= 1440 Lumens)	1	No	765.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.9	Supply and transportation of ----- edge lit LED slimline panel Light Housing made of Pressure die cast aluminium with Powder coated, round / Square with Protruded high efficiency diffuser, IP20, with wide operating voltage range, Power factor > 0.9, Surge protection: > 2KV, System efficacy of >70 lumens/watt, CCT: 3000K - 6500K as desired by the department and as per IS, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / Kiran / Benlo / TurtLED / Victoria / Accent / Deepal / Ex-Kburn / Glo LED			
803	a	12W +/-10% (>= 940 Lumens)	1	No	489.00
804	b	18W +/-10% (>= 1260 Lumens)	1	No	708.00
805	ELEC-3.3.10	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage with double side connection, PF≥0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI≥80,.etc complete with 5 years warranty with BIS Certification.LUMINAIRE MAKE: Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Arrt / Lighting Technologies / Bee-Lite . LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.	1	No	477.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
806	ELEC-3.3.11	Supply and transportation of 20W +/-10%, 1900 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage, double side connection, with PF $\geq$ 0.9, Surge protection: > 2KV, THD<10%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc.complete with 5 years warranty. LUMINAIRE MAKE : Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Renesola / RR Electric	1	No	391.00
807	ELEC-3.3.12	Supply and transportation of 20W +/-10%, 1800 lumens, 1200mm length LED retro tube light, housing made with alluminium anodised body, wide operating voltage, with double side connection, with PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 5700K, minimum CRI $\geq$ 70,.etc.,complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / Kiran / Benlo / TurtLED / Victoria / Accent / Deepal. / Ex-Kburn / Glo LED	1	No	360.00
808	ELEC-3.3.13	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with glass body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification.LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Arrt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.	1	No	279.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
809	ELEC-3.3.14	Supply and transportation of 20W +/-10%, >/ 2000 lumens, 1200mm length LED retro tube light, housing made with PC body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Arrt / Lighting Technologies LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.	1	No	342.00
810	ELEC-3.3.15	Supply and transportation of 10W, 1000 lumens, 600 mm (+/-10%) length LED batten tube light, housing made with PC body, wide operating voltage with Single / double side connection, PF $\geq$ 0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department and as per IS specifications, minimum CRI $\geq$ 80,.etc complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Arrt / Lighting Technologies LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.	1	No	346.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
811	ELEC-3.3.16	Supply and transportation of 22W +/- 10% , >/ 2300 lumens, 1200 mm (+/- 10%) length LED light housing made with alluminium anodised body, wide operating voltage with PF≥0.9, Surge protection: > 2KV, THD<15%, with inbuilt driver and frosted cover CCT: 3000K - 6500K as desired by the department as per IS, minimum CRI≥80 etc., complete with 5 years warranty with BIS Certification with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Artt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.	1	No	553.00
	ELEC-3.3.17	Supply and Transportation of Edge lit, 2' x2' (600mm x 600mm) slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >110 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 5 years warranty with BIS Certification.LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Artt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
812	a	32-36W (≥ 3950 Lumens)	1	No	2641.00
813	b	40-42W (≥ 4620 Lumens)	1	No	2916.00
814	c	45W (≥ 4950 Lumens)	1	No	3059.00
815	ELEC-3.3.18	Supply and Transportation of 36W Edge lit, suitable for 2' x2' grid false ceiling / zip board (595 mm x 595 mm) slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 5 years warranty. LUMINAIRE MAKE : Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Renesola / RR Electric	1	No	2223.00
816	ELEC-3.3.19	Supply and Transportation of 36W Edge lit 2' x2' grid false ceiling / zip board (595 mm x 595 mm) Slim panel LED luminaire Square Housing Made of Aluminum alloy with corrosion resistant powder coat, with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% with non integrated driver etc., complete with 5 years warranty.LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / Kiran / Benlo / TurtLED / Victoria / Accent / Deepal / Ex-Kburn / Glo LED	1	No	2061.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.20	Supply and Transportation of ----- ----- Back lit, 2' x2' grid false ceiling / zip board (595 mm x 595 mm) Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >110 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty with BIS Certification. LUMINAIRE MAKE : Phillips / OSRAM / Wipro / Crompton / Bajaj / Havells / Jaquar / Panasonic / Halonix / HPL / Eveready / Surya / Keselec / Arraystorm / GM / Goldmedal / Goldwyn / Fortune Artt / Lighting Technologies / Bee-Lite LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
817	a	30-36 W +/-10% (>=3960 Lumens)	1	No	2703.00
818	b	40-42 W +/-10% (>=4620 Lumens)	1	No	2840.00
819	c	45 W +/-10% (>=4950 Lumens)	1	No	3016.00
	ELEC-3.3.21	Supply and Transportation of ----- Back lit, 2' x2' (600mm x 600mm) Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >100 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE: Capart / Kashyap BLU / Million / Trinic / Sieger / Stanjo / Renesola / RR Electric			
820	a	36 W +/-10% (>=3600 Lumens)	1	No	2175.00
821	b	45 W +/-10% (>=4500 Lumens)	1	No	2636.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.3.22	Supply and Transportation of ----- Back lit, 2' x2' (600mm x 600mm) Recessed / Surface mounted LED luminaire made of CRCA sheet housing with powder coated with high efficiency acrylic wide diffuser, with wide operating voltage range, Power factor > 0.9, Surge protection >2KV, System efficacy of >90 lumens/watt, CCT: 3000K - 6500K as desired by the department, CRI >80, and THD is less than 15% etc., complete with 5 years warranty. LUMINAIRE MAKE : Cosmo / VRILISO / Pro-Lite / Scintilla / Kiran / Benlo / TurtLED / Victoria / Accent / Deepal / Ex-Kburn / Glo LED			
822	a	36 W +/-10% (>=3240 Lumens)	1	No	2047.00
823	b	45 W +/-10% (>=4050 Lumens)	1	No	2261.00
824	ELEC-3.3.23	Supply and transportation of MS frame with powder coating suitable for 600mm x 600mm LED panel light.	1	No	409.00
825	ELEC-3.3.24	Supply & Fixing of pre wired Patty type batten frame made with CRCA sheet powder coated suitable for LED tube light.	1	No	117.00
826	ELEC-3.3.25	Supply & Fixing of decorative pre wired box type fixture made with CRCA sheet powder coated suitable for 4' LED tube light	1	No	225.00
	3.4	LED INDOOR LAMPS			
	ELEC-3.4.1	Supply of ----- with input voltage 90 to 300V, Colour temperature 3000k - 6500k, Beam angle 170 - 220 °C, B22 base.Makes: Phillips / OSRAM / Crompton / Eveready / Bajaj / Havells / Pharox / Halonix / IB LED/ Jaquar / / GM / Gold Medal / Million / Syska.			
827	a	0.5W LED Lamp	1	No	33.00
828	b	3.0W LED Lamp	1	No	76.00
829	c	5.0W LED Lamp	1	No	83.00
830	d	7.0W LED Lamp	1	No	89.00
831	e	9.0W LED Lamp	1	No	103.00
832	f	12.0W LED Lamp	1	No	153.00
833	g	15.0W LED Lamp	1	No	171.00
834	h	18.0W LED Lamp	1	No	225.00
835	i	30.0W LED Lamp	1	No	468.00
836	j	40.0W LED Lamp	1	No	603.00
837	k	50.0W LED Lamp	1	No	792.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
838	ELEC-3.4.2	Supply of LED Candel Lamp for shandliers. Makes: Phillips / OSRAM / Crompton / Eveready / Bajaj / Havells / Pharox / Halonix / IB LED/ Jaquar / / GM / Gold Medal / Million / Syska.	1	No	209.00
	3.5	LED STREET LIGHTS			
	ELEC-3.5.1	Supply and transportation of LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover / temperature protective custom molded polycarbonate diffuser, Thermal shock and impact resistant IK07 fixed to the housing by SS screws Suitable lense on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >120 lumens / watt, with Ingress protection IP66, BIS approved Potted driver, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / CROMPTON / BAJAJ / Surya / Ecolink / Wipro / Jaquar / Eveready / Halonix / Keselec / HAVELLS / POLYCAB / SURYA / Capart / Fortune Artt / Goldwyn / Panasonic / GM / Goldmedal / Silicon / Orient / HPL / Valmont / Transrail / Bee - Lite / / Accent LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
839	a	20 W +/-10% (>=2000 Lumens)	1	No	1314.00
840	b	30 W +/-10% (>=3000 Lumens)	1	No	1827.00
841	c	43 / 45 W +/-10% (>=4500 Lumens)	1	No	2628.00
842	d	60 / 65 W +/-10% (>=6500 Lumens)	1	No	3933.00
843	e	72 W +/-10% (>=7200 Lumens)	1	No	4279.00
844	f	90W +/-10% (>=9000 Lumens)	1	No	5832.00
845	g	100 W +/-10% (>=10000 Lumens)	1	No	6489.00
846	h	110 W +/-10% (>=11000 Lumens)	1	No	7182.00
847	i	120 W +/-10% (>=12000 Lumens)	1	No	7596.00
848	j	150 W +/-10% (>=15000 Lumens)	1	No	9319.00
849	k	180 W +/-10% (>=18000 Lumens)	1	No	10147.00
850	l	210 W +/-10% (>=21000 Lumens)	1	No	13806.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.5.2	Supply and transportation of LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover / temperature protective custom molded polycarbonate diffuser, Thermal shock and impact resistant IK07 fixed to the housing by SS screws Suitable lense on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >110 lumens / watt, with Ingress protection IP66, BIS approved Potted driver, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates.LUMINAIRE MAKE : LUMINAIRE MAKE : MILLION / RR Electric / IB LED / MIC / Promptec / Luker / Lumens (India) / Sieger / Renesola / Stanjo / Ex-KburnLED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
851	a	20 W +/-10% (>=1800 Lumens)	1	No	1188.00
852	b	30 W +/-10% (>=2700 Lumens)	1	No	1728.00
853	c	43 / 45 W +/-10% (>=4050 Lumens)	1	No	2484.00
854	d	60 / 65 W +/-10% (>=5850 Lumens)	1	No	3519.00
855	e	72 W +/-10% (>=6480 Lumens)	1	No	3865.00
856	f	90W +/-10% (>=8100 Lumens)	1	No	5247.00
857	g	100 W +/-10% (>=9000 Lumens)	1	No	5868.00
858	h	110 W +/-10% (>=9900 Lumens)	1	No	6561.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
859	i	120 W +/-10% (>=10800 Lumens)	1	No	6835.00
	ELEC-3.5.3	Supply and transportation of LED Street light Body made of high grade pressure die - cast Aluminium alloy with corrosion resistant powder coat, having protective toughened glass cover / temperature protective custom molded polycarbonate diffuser, Thermal shock and impact resistant IK07 fixed to the housing by SS screws Suitable lense on LEDs, Less Glare, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range, P.F > 0.90, System having efficacy >100 lumens / watt, with Ingress protection IP66, BIS approved Potted driver, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates.LUMINAIRE MAKE : COSMO / KASHYAP BLU / Pro-Lite / SCINTILLA / Mulex / Kiran / Benlo / Savitha / Deepal / Glo LED / Turt LED / Light mate LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
860	a	20 W +/-10% (>=1600 Lumens)	1	No	1138.00
861	b	30 W +/-10% (>=2400 Lumens)	1	No	1656.00
862	c	43 / 45 W +/-10% (>=3600 Lumens)	1	No	2350.00
863	d	60 / 65 W +/-10% (>=5200 Lumens)	1	No	3312.00
864	e	90W +/-10% (>=7200 Lumens)	1	No	4968.00
865	f	100 W +/-10% (>=8000 Lumens)	1	No	5526.00
866	g	110 W +/-10% (>=8800 Lumens)	1	No	6214.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
867	h	120 W +/-10% (>=9600 Lumens)	1	No	6420.00
		LED FLOOD LIGHTS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.5.4	Supply and transportation of LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66) protected, wide operating voltage range , P.F > 0.90, System having efficacy >110 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with BIS certification with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : Philips / Osram / Crompton / Bajaj / Surya / Wipro / Jaquar / Eveready / Halonix / Keselec / Havells / Polycab / Surya / Syska./ Ecolink / Capart / Fortune Artt / GM / Goldmedal / Panasonic / Silicon / Leksa / Orient / HPL / Valmont / Transrail / Bee -Lite/Accent LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
868	a	60 W +/-10% (>=6000 Lumens)	1	No	4653.00
869	b	90 W +/-10% (>=9000 Lumens)	1	No	6516.00
870	c	120 W +/-10% (>=12000 Lumens)	1	No	8750.00
871	d	150 W +/-10% (>=15000 Lumens)	1	No	11218.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
872	e	200 W +/-10% (≥ 20000 Lumens)	1	No	13554.00
873	f	250 W +/-10% (≥ 25000 Lumens)	1	No	15867.00
	ELEC-3.5.5	Supply and transportation of LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66)protected, wide operating voltage range , P.F > 0.90, System having efficacy >100 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates.LUMINAIRE MAKE : Million / RR Electric / IB LED / MIC / Promptec / Luker / Lumens (India) / Sieger / Renesola / Stanjo / Rhino / Ex-Kburn			
874	a	60 W +/-10% (≥ 5400 Lumens)	1	No	3924.00
875	b	90 W +/-10% (≥ 8100 Lumens)	1	No	5800.00
876	c	120 W +/-10% (≥ 10800 Lumens)	1	No	7280.00
877	d	150 W +/-10% (≥ 13500 Lumens)	1	No	8617.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.5.6	Supply and transportation of LED Flood light Luminaire made of pressure die cast aluminum housing with powder coated, having toughened glass cover, Suitable lens on LEDs, IP 66 (Silicon gasket ensures Optical & Electrical compartments are IP 66)protected, wide operating voltage range , P.F > 0.90, System having efficacy >90 lumens/watt, with Ingress protection IP66, Driver surge protection >10KV, THD<15%, CCT: 3000- 6500K as desired by the department and as per IS, CRI>70, Inbuilt Electrical protections like Over voltage, short circuit, Over load, Open Circuit, Miswiring, etc complete with 5 years warranty.The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : COSMO / KASHYAP BLU / Pro-Lite / SCINTILLA / TAIYOLUX / LINK WELL / RYON / Mulex / Kiran / Benlo / Savitha / Accent / Deepal / Glo LED / Turt LED / Light mate			
878	a	60 W +/-10% (>=4800 Lumens)	1	No	3430.00
879	b	90 W +/-10% (>=7200 Lumens)	1	No	5067.00
880	c	120 W +/-10% (>=9600 Lumens)	1	No	6370.00
881	d	150 W +/-10% (>=12000 Lumens)	1	No	7753.00
		NOTE : All models of individual makes should be got approved by Department			
		NOTE : The concerned Engineer has to obtain the following certificates from the manufacturer through the contractor / agency and verify and submit for approval of the model to be used.			
		1. LM 79, LM 80 certificate			
		2. BIS Certificate			
		3. CRI / THD Certificate			
		4. Surge Protection > 2 KV for indoor & > 10 KV for outdoor			
		5. NABL certified test reports			
		6. Guarantee letter from Manufacturer with project name. In case of failure deduct 30% from the rates.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.5.7	Supply and transportation of LED High Bay Luminaire with high power COB LED made of pressure diecast aluminium housing with powder coated, Supply Input voltage 120 - 270 V AC, P.F > 0.90, high power LED's, System efficacy >100 lm / W and junction temperature < 70°C, with Ingress protection IP65, IK05, Driver surge protection 4KV, external Surge protection ≥ 5KV with wide/ Narrow beam optics, THD<10% at 110 Volts AC, driver efficiency >90%, CCT: 3000K - 5700K, minimum CRI>70, etc., complete with BIS certification with warranty 5 years warranty. The contractor has to furnish the manufacturer warranty letter, LM 79 and LM 80 certificates. LUMINAIRE MAKE : PHILIPS / OSRAM / GE Venture / CROMPTON / BAJAJ / Wipro / Jaquar / Panasonic / Eveready / Halonix / Keselec / HAVELLS / SURYA / SYSKA / Arraystorm / GM / Goldmedal / Leksa / Orient LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
882	a	60 W +/-10% (>6000 Lumens)	1	No	5900.00
883	b	90 W +/-10% (>9000 Lumens)	1	No	7210.00
884	c	120 W +/-10% (>12000 Lumens)	1	No	8520.00
885	d	150 W +/-10% (>15000 Lumens)	1	No	9840.00
886	ELEC-3.5.8	Supply and transportation of 10W LED Bulk head fitting with milky diffuser heat sink integrated with housing with all accessories etc complete with 5 years warranty warranty. LUMINAIRE MAKE : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / Fortune Arrt / HALONIX / HAVELLS / HPL / SYSKA / SURYA / Arraystorm / GM / Goldmedal / Jaquar / Panasonic / Leksa / Orient LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.	1	No	738.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.5.9	Supply and transportation of LED well glass fitting madeup of pressure die cast alluminium, integrated heat sink, dedicated mounting bracket, with all accessories etc complete with 5 years warranty warranty. LUMINAIRE MAKE : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / Fortune Arrt / HALONIX / HAVELLS / HPL / SYSKA / SURYA / Arraystorm / GM / Goldmedal / Jaquar / Panasonic / Leksa / Orient LED MAKE : Philips Lumileds / Cree / Nichia / Osram / Samsung / LG LEDs.			
887	a	25 W +/-10% (>=2500 Lumens)	1	No	2070.00
888	b	30 W +/-10% (>=3000 Lumens)	1	No	2250.00
889	c	35 W +/-10% (>=3500 Lumens)	1	No	2430.00
890	d	40 W +/-10% (>=4000 Lumens)	1	No	2880.00
891	e	45 W +/-10% (>=4500 Lumens)	1	No	3240.00
	3.6	LED DRIVERS			
	ELEC-3.6.1	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for----- LED down lighter. MAKES : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / HALONIX / HAVELLS / HPL / SURYA / SYSKA / Jaquar / Arraystorm / GM / Goldmedal / Pro-Lite / SECS			
892	a	6 W / 9 W	1	No	250.00
893	b	12 W / 18 W / 20W / 22 W LED	1	No	370.00
894	c	36W	1	No	570.00
895	d	40 W / 45 W	1	No	690.00
	ELEC-3.6.2	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection more than 2.5 KV, IP20, suitable for----- LED down lighter.MAKES : PHAROX / AVNI / GOLDWYN / KRIPA LIGHTS / Fortune Arrt / STANJO / GREENLITES / TRINIC / SCINTILLA / JSTC - SOLAR / INSTA POWER / MILLION / PANASONIC			
896	a	6 W / 9 W	1	No	215.00
897	b	12 W / 18 W / 20W / 22 W LED	1	No	315.00
898	c	36W	1	No	490.00
899	d	40 W / 45 W	1	No	595.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-3.6.3	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for -----LED street light fitting. Makes : PHILIPS / OSRAM / GE / CROMPTON / BAJAJ / Keselec / HALONIX / HAVELLS / HPL / SURYA / SYSKA / Jaquar / Arraystorm / GM / Goldmedal			
900	a	15-30W	1	No	420.00
901	b	45-80W	1	No	875.00
902	c	90-180W	1	No	1670.00
	ELEC-3.6.4	Supply and transportation of LED Driver with input line voltage 120V-270V AC, 50Hz with surge protection of 4.0 KV, IP20, suitable for -----LED street light fitting. MAKES : PHAROX / AVNI / GOLDWYN / KRIPA LIGHTS / Fortune Arrt / STANJO / GREENLITES / TRINIC / Pro-Lite / SCINTILLA / JSTC - SOLAR / INSTA POWER / MILLION / PANASONIC.			
903	a	15-30W	1	No	390.00
904	b	45-80W	1	No	825.00
905	c	90-180W	1	No	1575.00
	3.7	INTEGRATED STREET LIGHTING with ABS Body (SOLAR)			
	ELEC-3.7.1	Supply, transportation and fixing of Integrated IP 65 Solar Street Light with ABS + Polycarbonate body, Poly crystal Solar panel with cool white SMD LED Light, Beam angle 120 °C, High Bright Reflector, Charging time is minimum 6 Hrs and maximum 8 Hrs, Lighting Time 10 to 12 Hrs (Subject to using dusk to dawn / Induction Mode / Duration Mode of Timers), used High efficiency Life Po4, Battery, Auto dim and Auto Bright, Motion sensor and also facilitate duration based timer of 2 / 4 / 6 Hrs with 2 years warranty. MAKES : Havells / Lightmate / Bajaj / Pro-Lite			
906	a	5 W	1	No	4500.00
907	b	10 W	1	No	6700.00
908	c	15 W	1	No	9200.00
909	d	20 W	1	No	11400.00
910	e	25 W	1	No	13100.00
911	f	30 W	1	No	14000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		SEMI INTEGRATED STREET LIGHTING with Aluminium Body (SOLAR)			
	ELEC-3.7.2	Supply and transportation of Integrated IP 65 Solar Street Light with aluminium Body, Toughened Glass, Poly crystal Solar panel with cool white SMD LED Light, Beam angle 120 °C, High Bright Reflector, Charging time is minimum 6 Hrs and maximum 8 Hrs, Lighting Time 24 Hrs (Subject to using dusk to dawn / Induction Mode / Duration Mode of Timers), used High efficiency LiFe PO 4 Battery, Auto dim and Auto Bright, Motion sensor with 2 years warranty. MAKES : Havells / Lightmate / Bajaj / Pro-Lite			
912	a	12 W	1	No	7840.00
913	b	18 W	1	No	9960.00
914	c	24 W	1	No	13040.00
915	d	30 W	1	No	14070.00
		SECTION - 4			
	4.1	U.G. CABLES			
	ELEC-4.1.1	Supply of ----- XLPE insulated, 1100V grade armoured aluminium cable with ISI mark as per specification confirming to IS:7098 (Part - I) Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / RR kable			
916	a	4 Sqmm 2 Core	1	Mtr	168.00
917	b	6 Sqmm 2 Core	1	Mtr	200.00
918	c	10 Sqmm 2 Core	1	Mtr	242.00
919	d	6 Sqmm 4 Core	1	Mtr	242.00
920	e	10 Sqmm 4 Core	1	Mtr	263.00
921	f	16 Sqmm 4 Core	1	Mtr	294.00
922	g	25 Sqmm 3.5 Core	1	Mtr	378.00
923	h	35 Sqmm 3.5 Core	1	Mtr	452.00
924	i	50 Sqmm 3.5 Core	1	Mtr	600.00
925	j	70 Sqmm 3.5 Core	1	Mtr	767.00
926	k	95 Sqmm 3.5 Core	1	Mtr	998.00
927	l	120 Sqmm 3.5 Core	1	Mtr	1229.00
928	m	150 Sqmm 3.5 Core	1	Mtr	1386.00
929	n	185 Sqmm 3.5 Core	1	Mtr	1701.00
930	o	240 Sqmm 3.5 Core	1	Mtr	2163.00
931	p	300 Sqmm 3.5 Core	1	Mtr	2636.00
932	q	400 Sqmm 3.5 Core	1	Mtr	3308.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-4.1.2	Supply of ----- XLPE insulated, 1100V grade armoured alluminium cable with ISI mark as per specification confirming to IS:7098 (Part - I) Makes : Gloster / Finolex / Payal / Beljin / Finecab / RPG / V - Guard / Orbit / Fortune Artt / Gemscab / Bonton / SPM / Unistar / Windsor/ Avocab / Pawancab / Nakoda / Suncab			
933	a	4 Sqmm 2 Core	1	Mtr	160.00
934	b	6 Sqmm 2 Core	1	Mtr	190.00
935	c	10 Sqmm 2 Core	1	Mtr	230.00
936	d	6 Sqmm 4 Core	1	Mtr	230.00
937	e	10 Sqmm 4 Core	1	Mtr	250.00
938	f	16 Sqmm 4 Core	1	Mtr	280.00
939	g	25 Sqmm 3.5 Core	1	Mtr	360.00
940	h	35 Sqmm 3.5 Core	1	Mtr	430.00
941	i	50 Sqmm 3.5 Core	1	Mtr	570.00
942	j	70 Sqmm 3.5 Core	1	Mtr	730.00
943	k	95 Sqmm 3.5 Core	1	Mtr	950.00
944	l	120 Sqmm 3.5 Core	1	Mtr	1170.00
945	m	150 Sqmm 3.5 Core	1	Mtr	1320.00
946	n	185 Sqmm 3.5 Core	1	Mtr	1620.00
947	o	240 Sqmm 3.5 Core	1	Mtr	2060.00
948	p	300 Sqmm 3.5 Core	1	Mtr	2510.00
949	q	400 Sqmm 3.5 Core	1	Mtr	3150.00
	4.2	11 KV H.T. XLPE CABLES			
	ELEC-4.2.1	Supply of ----- HT XLPE (E) insulated 11000 V grade armoured Cable, as per IS specification confirming to IS 7098/II/85 with latest amendments. Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / RPG / Gloster.			
950	a	35 Sqmm 3 Core	1	Mtr	1034.00
951	b	50 Sqmm 3 Core	1	Mtr	1176.00
952	c	70 Sqmm 3 Core	1	Mtr	1400.00
953	d	95 Sqmm 3 Core	1	Mtr	1670.00
954	e	120 Sqmm 3 Core	1	Mtr	1890.00
955	f	150 Sqmm 3 Core	1	Mtr	2140.00
956	g	185 Sqmm 3 Core	1	Mtr	2540.00
957	h	240 Sqmm 3 Core	1	Mtr	3130.00
958	i	300 Sqmm 3 Core	1	Mtr	3530.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		33 KV H.T. XLPE CABLES			
	ELEC-4.2.2	Supply of ----- HT XLPE (E) insulated 33000 V grade armoured Cable, as per IS specification confirming to IS 7098/II/85 with latest amendments. Makes : Torrent / Unicab / Universal / Polycab / Havells / KEI / Gloster			
959	a	95 Sqmm 3 Core	1	Mtr	2690.00
960	b	120 Sqmm 3 Core	1	Mtr	2996.00
961	c	150 Sqmm 3 Core	1	Mtr	3280.00
962	d	185 Sqmm 3 Core	1	Mtr	3598.00
963	e	240 Sqmm 3 Core	1	Mtr	4120.00
964	f	300 Sqmm 3 Core	1	Mtr	4640.00
965	g	400 Sqmm 3 Core	1	Mtr	5370.00
	4.3	CABLE GLANDS			
		SINGLE COMPRESSION HEAVY DUTY GLANDS FOR ARMOURED CABLES			
	ELEC-4.3.1	Supply and fixing of heavy duty type single compression brass cable glands duly nickel plated complete with brass checknut, outer sheath sealing rubber ring and washers suitable for ----- ----- XLPE insulated armoured cable, including all labour charges and miscellaneous items etc complete. Makes: SMI / Commet / Dowels.			
966	a	Up to 16.0 Sq.mm 2 Core	1	No	190.00
967	b	Up to 16.0 Sq.mm 4 Core	1	No	230.00
968	c	25 Sqmm to 50.0 Sq.mm 3.5 Core	1	No	300.00
969	d	70 Sqmm to 95.0 Sq.mm 3.5 core	1	No	480.00
970	e	120 Sqmm to 150.0 Sq.mm 3.5 core	1	No	760.00
971	f	185 Sq.mm 3.5 core	1	No	910.00
972	g	240 Sq.mm 3.5 core	1	No	1030.00
973	h	300 Sq.mm 3.5 core	1	No	1280.00
974	i	400 Sq.mm 3.5 core	1	No	1460.00
		DOUBLE COMPRESSION HEAVY DUTY GLANDS FOR ARMOURED CABLES			
	ELEC-4.3.2	Supply and fixing of heavy duty type double compression weather proof type brass cable glands duly nickel plated as per BS 6121 and IP66 complete with brass checknut, outer sheath sealing gasket suitable for ----- ----- XLPE insulated armoured cable etc complete. Makes: SMI / Commet / Dowels.			
975	a	Up to 16.0 Sq.mm 2 Core	1	No	350.00
976	b	10 Sq.mm 4 Core	1	No	350.00
977	c	16 to 25 Sq.mm 4 Core	1	No	430.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
978	d	35 Sq mm 3.5 Core	1	No	515.00
979	e	50 Sq mm 3.5 Core	1	No	640.00
980	f	70 to 95 Sq.mm 4 Core	1	No	990.00
981	g	120 to 150 Sq.mm 4 Core	1	No	1340.00
982	h	185 Sq mm 3.5 Core	1	No	1630.00
983	i	240 Sq mm 3.5 Core	1	No	2100.00
984	j	300 Sq mm 3.5 Core	1	No	2450.00
985	k	400 Sq mm 3.5 Core	1	No	2775.00
		SHROUDS FOR DOUBLE COMPRESSION GLANDS			
	ELEC-4.3.3	Supply and erecting of PVC shrouds for double compression brass cable glands suitable for ----- ----- XLPE insulated armoured cable etc complete.			
986	a	Up to 16.0 Sq.mm 2 Core	1	No	12.00
987	b	10 Sq.mm 4 Core	1	No	18.00
988	c	16 to 25 Sq.mm 4 Core	1	No	18.00
989	d	35 Sq mm 3.5 Core	1	No	27.00
990	e	50 Sq mm 3.5 Core	1	No	32.00
991	f	70 to 95 Sq.mm 4 Core	1	No	44.00
992	g	120 to 150 Sq.mm 4 Core	1	No	44.00
993	h	185 Sq mm 3.5 Core	1	No	67.00
994	i	240 Sq mm 3.5 Core	1	No	67.00
995	j	300 Sq mm 3.5 Core	1	No	98.00
996	k	400 Sq mm 3.5 Core	1	No	98.00
		EARTH TAGS FOR GLANDS			
	ELEC-4.3.4	Supply and erecting of brass earth tag for cable glands suitable for ----- etc complete.			
997	a	up to 10.0 Sq.mm	1	No	18.00
998	b	16 to 35.0 Sq.mm	1	No	18.00
999	c	50.0 Sq.mm	1	No	25.00
1000	d	70 to 95.0 Sq.mm	1	No	28.00
1001	e	120 to 185.0 Sq.mm	1	No	40.00
1002	f	240 to 300.0 Sq.mm	1	No	65.00
1003	g	400.0 Sq.mm	1	No	90.00
	4.4	LUGS			
		COPPER LUGS			
	ELEC-4.4.1	Supply and fixing of heavy duty long barrel copper lugs conforming to I.S specifications suitable for ----- cable etc complete with nuts, bolts and washers. Makes: DMI / Jainson / Dowels or equivalent make as approved by the department			
1004	a	Up to 16 Sq.mm	1	No	50.00
1005	b	25 Sq.mm	1	No	60.00
1006	c	35 Sq.mm	1	No	80.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1007	d	50 Sq.mm	1	No	100.00
1008	e	70 Sq.mm	1	No	160.00
1009	f	95 Sq.mm	1	No	200.00
1010	g	120 Sq.mm	1	No	260.00
1011	h	150 Sq.mm	1	No	330.00
1012	i	185 Sq.mm	1	No	450.00
1013	j	240 Sq.mm	1	No	630.00
1014	k	300 Sq.mm	1	No	830.00
1015	l	400 Sq.mm	1	No	1200.00
		ALLUMINIUM LUGS			
	ELEC-4.4.2	Supply and fixing of heavy duty long barrel alluminium lugs confirming to I.S specifications suitable for ----- cable etc complete with nuts, bolts and washers. Makes: DMI / Jainson / Dowels or equivalent make as approved by the department			
1016	a	Upto 16 Sq.mm	1	No	35.00
1017	b	25 Sq.mm	1	No	40.00
1018	c	35 Sq.mm	1	No	50.00
1019	d	50 Sq.mm	1	No	55.00
1020	e	70 Sq.mm	1	No	60.00
1021	f	95 Sq.mm	1	No	70.00
1022	g	120 Sq.mm	1	No	90.00
1023	h	150 Sq.mm	1	No	140.00
1024	i	185 Sq.mm	1	No	160.00
1025	j	240 Sq.mm	1	No	200.00
1026	k	300 Sq.mm	1	No	270.00
1027	l	400 Sq.mm	1	No	400.00
	4.5	HEAT SHRINKABLE LT CABLE JOINTS			
	ELEC-4.5.1	Supply and erecting of heat shrinkable straight through joint Indoor / Out door for L.T. XLPE Armoured 1100V grade cable complete with necessary accessories and suitable clamps including cost and conveyance of materials complete for ----- with outer tubing seamless type etc complete for finished item of work. Makes : Raychem / Transeal / M Seal			
1028	a	10 to 16 Sqmm 4 Core	1	No	2300.00
1029	b	25 to 50 Sqmm 3.5 Core	1	No	2700.00
1030	c	70 to 185 Sqmm 3.5 Core	1	No	3800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1031	d	240 to 300 Sqmm 3.5 Core	1	No	7000.00
1032	e	400 Sqmm 3.5 Core	1	No	9500.00
	4.6	11 KV 3 CORE HT CABLE STRAIGHT THROUGH JOINTS			
	ELEC-4.6.1	Providing and erecting heat shrinkable straight through joint for out door / indoor for H.T, XLPE Insulated armoured cable 11 KV grade complete with necessary accessories and suitable clamps for ----- cable including cost and conveyance of materials and all labour charges etc., complete with outer tubing tubular type. Makes : Raychem / Transeal / M Seal			
1033	a	16 to 35 Sqmm	1	No	16475.00
1034	b	50 to 95 Sqmm	1	No	19770.00
1034	c	120 to 185 Sqmm	1	No	25260.00
1035	d	240 to 300 Sqmm	1	No	31260.00
	ELEC-4.6.2	Providing and erecting heat shrinkable straight through joint for out door / indoor for H.T, XLPE Insulated armoured cable 33 KV grade complete with necessary accessories and suitable clamps for ----- cable including cost and conveyance of materials and all labour charges etc., complete with outer tubing tubular type. Makes : Raychem / Transeal / M Seal			
1036	a	16 to 35 Sqmm	1	No	20870.00
1037	b	50 to 95 Sqmm	1	No	25050.00
1038	c	120 to 185 Sqmm	1	No	32000.00
1039	d	240 to 300 Sqmm	1	No	38000.00
	4.7	HT END TERMINATION KITS			
	ELEC-4.7.1	Providing and erecting heat shrinkable indoor termination kit for 11 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			
1040	a	70-95 Sqmm 3 core	1	No	9260.00
1041	b	120 Sqmm 3 core	1	No	9390.00
1042	c	150-185 Sqmm 3 core	1	No	10070.00
1043	d	240-300 Sqmm 3 core	1	No	10760.00
	ELEC-4.7.2	Providing and erecting heat shrinkable indoor termination kit for 33 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1044	a	70-95 Sqmm 3 core	1	No	11730.00
1045	b	120 Sqmm 3 core	1	No	11900.00
1046	c	150-185 Sqmm 3 core	1	No	12760.00
1047	d	240-300 Sqmm 3 core	1	No	13630.00
	ELEC-4.7.3	Providing and erecting heat shrinkable outdoor termination kit for 11 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			
1048	a	70-95 Sqmm 3 core	1	No	14060.00
1049	b	120 Sqmm 3 core	1	No	14280.00
1050	c	150-185 Sqmm 3 core	1	No	15600.00
1051	d	240-300 Sqmm 3 core	1	No	16040.00
	ELEC-4.7.4	Providing and erecting heat shrinkable outdoor termination kit for 11 KV HT XLPE insulated armoured cable ----- with necessary materials etc., complete. Makes : Raychem / Transeal / M Seal			
1052	a	70-95 Sqmm 3 core	1	No	17800.00
1053	b	120 Sqmm 3 core	1	No	18090.00
1054	c	150-185 Sqmm 3 core	1	No	19750.00
1055	d	240-300 Sqmm 3 core	1	No	20310.00
	4.8	CABLE FAULT DETECTION			
1056	ELEC-4.8.1	Cable Fault Detection for all types of LT underground cbles from 16 sq mm to 400 sq mm upto 250 Mtrs length of cable	1	Job	8900.00
1057	ELEC-4.8.2	Cable Fault Detection for all types of HT underground cbles from 16 sq mm to 400 sq mm upto 250 Mtrs length of cable	1	Job	10200.00
	4.9	DOUBLE WALLED CORRUGATED HDPE PIPE			
	ELEC-4.9.1	Supply and Transportation of double walled corrugated HDPE duct made as per specification BSEN - 500 86/IS 16205 Part-24 : 2017 with all accessories like couplers, bends, end caps, Ts etc., complete. Makes: Bajaj / CPE			
1058	a	Outer dia 50mm and Inner dia 38mm	1	Mtr	105.00
1059	b	Outer dia 63mm and Inner dia 51mm	1	Mtr	135.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1060	c	Outer dia 78mm and Inner dia 63mm	1	Mtr	165.00
1061	d	Outer dia 90mm and Inner dia 76mm	1	Mtr	175.00
1062	e	Outer dia 120mm and Inner dia 103.50mm	1	Mtr	275.00
1063	f	Outer dia 160mm and Inner dia 136mm	1	Mtr	405.00
1064	g	Outer dia 180mm and Inner dia 152mm	1	Mtr	530.00
1065	h	Outer dia 200mm and Inner dia 170mm	1	Mtr	620.00
	4.10	CABLE TRAYS			
		PERFORATED CABLE TRAYS			
	ELEC-4.10.1	Supply, Transportation and Installation of ----- hot dip GI perforated cable tray without cover along with coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc complete and the tray should be fitted on the wall / Ceiling etc. complete for finished item of work. Makes: DEC / MNR / Aparna / H FAB or equivalent			
		Note: Add 30% Extra for Perforated cable tray with cover on below rates.			
1066	a	600mm x 75mm x 2mm thick	1	Mtr	1960.00
1067	b	600mm x 50mm x 2mm thick	1	Mtr	1455.00
1068	c	450mm x 50mm x 2mm thick	1	Mtr	1280.00
1069	d	300mm x 50mm x 2mm thick	1	Mtr	1080.00
1070	e	150mm x 50mm x 2mm thick	1	Mtr	600.00
1071	f	100mm x 25mm x 2mm thick	1	Mtr	350.00
1072	g	75mm x 25mm x 2mm thick	1	Mtr	310.00
1073	h	600mm x 75mm x 1.6mm thick	1	Mtr	1570.00
1074	i	600mm x 50mm x 1.6mm thick	1	Mtr	1160.00
1075	j	450mm x 50mm x 1.6mm thick	1	Mtr	1020.00
1076	k	300mm x 50mm x 1.6mm thick	1	Mtr	880.00
1077	l	150mm x 50mm x 1.6mm thick	1	Mtr	480.00
1078	m	100mm x 25mm x 1.6mm thick	1	Mtr	280.00
1079	n	75mm x 25mm x 1.6mm thick	1	Mtr	250.00
		LADDER TYPE CABLE TRAYS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-4.10.2	Supply, Transportation and Installation of ----- GI Ladder type cable tray along with required coupler plates, T's, Bends, Reducers, Anchor bolts, nuts, washers and slotted channels / Angle Iron Channels etc complete and the tray should be fitted on the wall / Ceiling etc. complete for finished item of work. Makes: DEC / MNR / Aparna / H FAB or equivalent			
1080	a	1000mm x 75mm x 2mm thick	1	Mtr	1560.00
1081	b	750mm x 75mm x 2mm thick	1	Mtr	1400.00
1082	c	600mm x 75mm x 2mm thick	1	Mtr	1230.00
1083	d	300mm x 50mm x 2mm thick	1	Mtr	770.00
1084	e	150mm x 50mm x 2mm thick	1	Mtr	615.00
		SECTION - 5			
	5.1	FANS			
1085	ELEC-5.1.1	Supply, Transportation of energy efficient fan, 900 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) motor, class of insulation: F, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater than 6.1, Air delivery minimum 170 CMM, 350 RPM(tolerance as per IS:374-2019), THD less than 10%. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75°C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete with 5 years warranty. Makes : Atomberg (Efficio) / Havells / Bajaj / Orient / Halonix / Crompton / Goldmedal / GM.	1	No	3085.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1085	ELEC-5.1.2	Supply, Transportation of energy efficient fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) motor, class of insulation: F, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater than 8.6, Air delivery minimum 235 CMM, 350 RPM(tolerance as per IS:374-2019), THD less than 10%. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75°C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete with 5 years warranty.Makes : Atomberg (Efficio) / Havells / Bajaj / Orient / Halonix / Crompton / Goldmedal / GM.	1	No	3085.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1086	ELEC-5.1.3	Supply, Transportation of energy efficient fan, 1400 mm sweep, aluminium body, consuming 32 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC)motor, class of insulation: F, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle'kit, copper winding, Power Factor greater than 0.90, Service Value (CMMAV) greater than 7.70, Air delivery minimum 270 CMM, 275 RPM (tolerance as per IS:374-2019), THD less than 10%. with remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75°C(max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., including all standard accessories etc., complete with 5 years warranty. Makes : Atomberg (Efficio) / Havells / Orient / Bajaj / Crompton / Halonix / Goldmedal / GM.	1	No	3230.00
1087	ELEC-5.1.4	Supply, Transportation of energy efficient decorative fan, 1200 mm sweep, aluminium body, consuming 28 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC)motor, class of insulation: F, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle kit, copper winding, Power Factor greater than 0.90, Service Value (CMM/W) greater than 8.6, Air delivery minimum 235 CMM, 350 RPM (tolerance as per IS:374-2019), THD less than 10%, remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75°C (max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., complete.Makes : Atomberg / Havells / Orient / RR / Halonix / Crompton / Bajaj / Goldmedal / GM.	1	No	3275.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1088	ELEC-5.1.5	Supply, Transportation of energy efficient decorative fan, 1400 mm sweep, aluminium body, consuming 35 W, BEE 5 star rated, ceiling fan with Brush Less Direct Current(BLDC) motor, class of insulation: F, 3 no's blades, 30 cm long down rod, 2 no's canopies, shackle kit, copper winding, Power Factor greater than 0.90, Service Value (CMM/W) greater than 7.7, Air delivery minimum 270 CMM, 275 RPM (tolerance as per IS:374-2019), THD less than 10%, remote or compatible to electronic step type regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise = 75°C (max), insulation resistance more than 2 mega ohm, suitable for 230V, 50 HZ, single phase AC supply, earthing etc., complete. Makes : Atomberg / Havells / Orient / Halonix / Crompton / Bajaj / Goldmedal / GM.	1	No	3610.00
1089	ELEC-5.1.6	Supply of 48" (1200mm) Sweep decorative Ceiling Fan 1 Star Rated with all accessories etc., complete. Makes : Crompton / Havells / Bajaj / Orient / Halonix / Goldmedal / GM.	1	No	2000.00
1090	ELEC-5.1.7	Supply of 12" (300mm) Cabin fan. Makes : Crompton / Havells ciera / Orient AP12 / Panasonic / Halonix / Bajaj / Goldmedal / GM.	1	No	2070.00
1091	ELEC-5.1.8	Supply of 16" (400 mm) BLDC 32 W Pedestal Fan with service value 2.7 CMM / Watt and with remote controller and with all accessories etc., Makes : Atomberg / Crompton / Orient / Havells / Halonix / Goldmedal / GM.	1	No	3392.00
1092	ELEC-5.1.9	Supply of 16" (400mm) BLDC 30 W Wall mounted Fan with service value 2.7 CMM / Watt with all accessories etc., Makes : Atomberg / Crompton / Orient / Havells / Halonix / Goldmedal / GM.	1	No	3150.00
	ELEC-5.1.10	Supply of -----Wall mounting / Pedestal Air Circulators Makes : Crompton / Havells Turbo Force / Orient / Almonard / Panasonic / Halonix / Goldmedal / GM.			
1093	a	18" (450mm)	1	No	6525.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1094	b	24" (600mm)	1	No	7970.00
	ELEC-5.1.11	Supply of ----- Light duty exhaust fan with metal blades etc complete for ante rooms / individual toilets. Makes : Crompton / Havells Ventilair-DSP / Orient hill air.			
1095	a	9" (225mm +/- 5%)	1	No	1555.00
1096	b	12" (300mm +/- 5%)	1	No	1817.00
	ELEC-5.1.12	Supply of ----- Ventilating exhaust fan with shutters etc complete for living rooms / office rooms Makes : Atomberg Studio / Crompton / Havells Ventilair DX / Orient / Panasonic / Halonix			
1097	a	6" (150mm)	1	No	1487.00
1098	b	8" (200mm)	1	No	1715.00
	ELEC-5.1.13	Supply of -----, 900 RPM Heavy duty exhaust fan with metallic blades for general toilets. Makes : Crompton / Almonard / Havells Turbo Force SP.			
1099	a	12" (300mm)	1	No	3410.00
1100	b	15" (375mm)	1	No	4020.00
1101	c	18" (450mm)	1	No	5250.00
	ELEC-5.1.14	Supply and fixing of GI louver shutter including GI mesh to avoid birds entry with necessary materials suitable for -----Exhaust fan.			
1102	a	9"	1	No	170.00
1103	b	12"	1	No	180.00
1104	c	15" / 16"	1	No	200.00
1105	d	18"	1	No	220.00
	ELEC-5.1.15	Providing recessing -----thickness brick wall suitable for erection of exhaust fan up to 450mm sweep completed with grouting, nuts, bolts, plastering and colour wash to match the the colour of wall .			
1106	a	9"	1	No	280.00
1107	b	12"	1	No	485.00
1108	c	15" / 18"	1	No	600.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-5.1.16	Supply of BLDC exhaust fan with necessary accessories etc., complete Makes : Atomberg / Crompton / Havells / Orient / Goldmedal / GM.			
1109	a	6" (150 mm)	1	No	2310.00
1110	b	8" (200 mm)	1	No	2520.00
1111	c	10" (250 mm)	1	No	2730.00
	5.2	WATER HEATERS / SOLAR HOT WATER SYSTEM			
		WATER HEATERS			
	ELEC-5.2.1	Supply, Transportation, Installation, Testing and commissioning of storage / Pressure type Vertical / Horizontal 230/250V single phase 2000 watts 5 Star rated water heater with ABS plastic body of ----- capacity to withstand up to 8.0 bar of water pressure including all standard accessories and dead weight pressure reducing valve on out let side, including cost of 2 Nos SS flexible braided hose pipe, testing and all labour charges etc., complete. Makes : Crompton / Jaquar / Venus / Racold / AO Smith / Goldmedal / GM / Havells / Bajaj or equivalent as approved by the Dept.			
1112	a	10 Ltrs	1	No	9800.00
1113	b	15 Ltrs	1	No	10880.00
1114	c	25 Ltrs	1	No	12735.00
1115	d	35 Ltrs	1	No	15300.00
		SOLAR HOT WATER SYSTEM			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-5.2.2	Supplying, installation, testing and commissioning of solar hot water heater comprising of solar FLAT Plate Collector(FPC) of size 2120x1040x100mm or equivalent size and stainless steel hot water storage tank with stainless steel heat exchanger absorber made of copper sheet and copper tube of following capacity aluminium box collector with appropriate capacity electrical back up arrangement excluding inlet and outlet pipes. SS Model with 100mm thick of 48Kg/M ³ dc Rock wool insulation with 22 SWG Aluminium cladding Make : Racold / Solarizer / V-Guard			
1116	a	100 Ltrs	1	No	30000.00
1117	b	200 Ltrs	1	No	58000.00
1118	c	250 Ltrs	1	No	75000.00
1119	d	300 Ltrs	1	No	88000.00
1120	e	500 Ltrs	1	No	150000.00
	ELEC-5.2.3	Supplying, installation, testing and commissioning of solar hot water heater comprising of high quality Evacuated Glass Tube (EGT) with absorber coating collector of size 58XA800MM .Inner Tank Material-Stainless steel 304-L Grade with Aluminum Stucco cladding made of High quality PUF insulation to minimize heat loss and hold water Temperature upto 72 Hrs with appropriate capacity electrical back up arrangement excluding inlet and outlet pipes. Fitted with Sacrificial anode Make : Racold / Solarizer / V-Guard			
1121	a	100 Ltrs	1	No	25000.00
1122	b	200 Ltrs	1	No	53000.00
1123	c	250 Ltrs	1	No	70000.00
1124	d	300 Ltrs	1	No	83000.00
1125	e	500 Ltrs	1	No	135000.00
	5.3	ACCESSORIES FOR WATER HEATERS			
1126	ELEC-5.3.1	Supply and Installation of Heating element of 1.5 / 2.0 / 3.0 KW.	1	No	495.00
1127	ELEC-5.3.2	Supply, Installation, Testing and Commissioning of thermostat with range 30° to 90°C adjustable and suitable for 25 to 50 Ltrs capacity.	1	No	335.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1128	ELEC-5.3.3	Supply , Installation, Testing and Commissioning of pressure release valve for water heater of 15 to 50 Ltrs.capacity.	1	No	335.00
1129	ELEC-5.3.4	Supply, Installation, Testing and Commissioning of Metallic / SS Flexible braided hose pipe	1	No	220.00
		NOTE : If it is only supply of the material (without installation) reduce the prices by 5%			
	5.4	HEAT PUMPS			
	ELEC-5.4.1	Supply, transportation and fixing of energy efficient heat pump water heater of monoblock storage / type Vertical 230 - 250 V, single phase 50 Hz rated water heater with SS tank coated with enamel and SS body with IP 44 waterproof body of ----- capacity to withstand upto 08 - 1.0 MPa Bar water pressure including 2 KW heating element and auto defrosting and 50 mm Puff insulation with all standard accessories and pressure reducing valve including required hose pipes etc., complete. Makes : Jaquar / Venus / Racold / AO Smith / Goldmedal / GM / Havells or equivalent as approved by the Dept.			
1130	a	200 Litres	1	No	128000.00
1131	b	300 Litres	1	No	161000.00
1132	c	400 Litres	1	No	191000.00
1133	d	500 Litres	1	No	225000.00
	5.5	STARTERS FOR MOTORS			
	ELEC-5.5.1	Supply & Fixing of D.O.L Starter 250V, Single phase, 50Hz. With Sheet Steel encloser comprising of contactor with bi-metalic relay with neceSheet Steelary push buttons, etc., complete suitable ----- Makes: Siemens / LK / BCH			
1134	a	Up to 3.0 HP.	1	No	2400.00
1135	b	Upto 7.5.HP.	1	No	2900.00
1136	c	Upto 10.0.HP.	1	No	4850.00
	ELEC-5.5.2	Supply & Fixing of Star Delta Starter 415V, Three phase, 50Hz. With Sheet Steel encloser comprising of contactor with bi-metalic relay with neceSheet Steelary push buttons, etc., complete suitable from ----- Makes: Siemens / Crompton / LK / BCH.			
1137	a	12.5 HP to 15.0 HP.	1	No	9900.00
1138	b	Above 15.0 HP up to 25.0 HP.	1	No	17250.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1139	c	Above 25.0 HP up to 35.0 HP.	1	No	35700.00
1140	ELEC-5.5.3	Supply and erecting water level controller 230 / 415V AC, 2 way per under ground tank operation only.	1	No	2580.00
1141	ELEC-5.5.4	Supply and erecting water level controller 230 / 415V AC, 2 way per over head tank operation only.	1	No	2980.00
1142	ELEC-5.5.5	Supply and erecting Float sensor switch for water level controller working on 250V and rated current 8 A, with 2Mtr High quality wire.	1	No	990.00
1143	ELEC-5.5.6	Supply and erecting directly operated single phasing preventer complete erected and connected to power supply to operate in case of single phasing.	1	No	1590.00
1144	ELEC-5.5.7	Supply and erecting pump protection relay comprising current sensing phase failure and UV+OV relay with dry run and over load protection suitable for 3 phase pumps.	1	No	4900.00
	5.6	SINGLE PHASE SUBMERSIBLE MOTOR PUMP SETS			
	ELEC-5.6.1	Supply and Transportation of ----- ----- single phase ISI submersible motor pumpset suitable for 4" Bore well. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1145	a	0.75HP 8 Stage	1	No	23625.00
1146	b	1.00HP 10 Stage	1	No	26985.00
1147	c	1.00HP 15 Stage	1	No	27825.00
1148	d	1.50HP 21 Stage	1	No	33600.00
1149	e	2.00HP 25 Stage	1	No	34650.00
	ELEC-5.6.2	Supply and Transportation of ----- ----- single phase ISI submersible motor pumpset suitable for 4" Bore well. Makes: Flowell / Waterman / Ellen / Kirlosker / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha			
1150	a	0.75 HP 8 Stage	1	No	19690.00
1151	b	1.00 HP 10 Stage	1	No	22470.00
1152	c	1.00 HP 15 Stage	1	No	23100.00
1153	d	1.50 HP 21 Stage	1	No	28140.00
1154	e	2.00 HP 25 Stage	1	No	32130.00
	5.7	THREE PHASE SUBMERSIBLE MOTOR PUMP SETS.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-5.7.1	Supply and Transportation of star rated -----Three phase ISI submersible motor pumpset suitable for 6" Bore well. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1155	a	3.00 HP 5-10 Stage	1	No	42000.00
1156	b	5.00 HP 5-10 Stage	1	No	47250.00
1157	c	5.00 HP 12-16 Stage	1	No	52500.00
1158	d	7.50 HP 5-10 Stage	1	No	52290.00
1159	e	7.50 HP 12-16 Stage	1	No	57750.00
1160	f	7.50 HP 20-25 Stage	1	No	61950.00
1161	g	10.00 HP 12-18 Stage	1	No	60900.00
1162	h	10.00 HP 20-30 Stage	1	No	76650.00
1163	i	10.00 HP 35-40 Stage	1	No	87150.00
1164	j	12.50 HP 12-20 Stage	1	No	74235.00
1165	k	12.50 HP 24-40 Stage	1	No	97125.00
1166	l	15.00 HP 10-20 Stage	1	No	97125.00
1167	m	15.00 HP 24-40 Stage	1	No	100590.00
	ELEC-5.7.2	Supply and Transportation of star rated -----Three phase ISI submersible motor pumpset suitable for 6" Bore well. Makes: Flowell / Waterman / Ellen / Kirlosker / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha			
1168	a	3.00 HP 5-10 Stage	1	No	34440.00
1169	b	5.00 HP 5-10 Stage	1	No	38325.00
1170	c	5.00 HP 12-16 Stage	1	No	43575.00
1171	d	7.50 HP 5-10 Stage	1	No	43050.00
1172	e	7.50 HP 12-16 Stage	1	No	48090.00
1173	f	7.50 HP 20-25 Stage	1	No	51450.00
1174	g	10.00 HP 12-16 Stage	1	No	50400.00
1175	h	10.00 HP 20-30 Stage	1	No	51975.00
1176	i	10.00 HP 35-40 Stage	1	No	61950.00
1177	j	12.50 HP 12-20 Stage	1	No	58485.00
1178	k	12.50 HP 24-40Stage	1	No	64575.00
1179	l	15.00 HP 10-20 Stage	1	No	70560.00
1180	m	15.00 HP 24-40 Stage	1	No	71925.00
	5.8	SINGLE PHASE OPEN WELL SUBMERSIBLE MOTOR PUMP SETS.			
	ELEC-5.8.1	Supply, Transportation and Installation of-----Single phase open well ISI submersible motor pumpset. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1181	a	1.00 HP	1	No	17850.00
1182	b	1.50 HP	1	No	20265.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-5.8.2	Supply, Transportation and Installation of-----Single phase open well ISI submersible motor pumpset. Makes: Flowell / Waterman / Ellen / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha			
1183	a	1.00 HP	1	No	14700.00
1184	b	1.50 HP	1	No	16800.00
	5.9	THREE PHASE OPEN WELL SUBMERSIBLE PUMP SETS.			
	ELEC-5.9.1	Supply, Transportation and Installation of ----- Three phase open well ISI submersible motor pumpset. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1185	a	3.00 HP	1	No	37485.00
1186	b	5.00 HP	1	No	43050.00
1187	c	7.50 HP	1	No	51450.00
1188	d	10.00 HP	1	No	54180.00
	ELEC-5.9.2	Supply, Transportation and Installation of ----- Three phase open well ISI submersible motor pumpset. Makes: Varuna / Flowell / Waterman / Techno / Mahavir / unitek / Fitwell / Ellen / Karvel / LPS / Duke / Varsha / Ajantha / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha			
1189	a	3.00 HP	1	No	30975.00
1190	b	5.00 HP	1	No	35700.00
1191	c	7.50 HP	1	No	42525.00
1192	d	10.00 HP	1	No	44625.00
	5.10	SINGLE PHASE MONO BLOCK MOTOR PUMP SETS.			
1193	ELEC-5.10.1	Supply and Transportation of 0.5HP Single phase, 2880 RPM 50 Hz ISI Mono block CI body motor pumpset Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon	1	No	9135.00
1194	ELEC-5.10.2	Supply and Transportation of 0.5HP Single phase, 2880 RPM 50 Hz ISI Mono block CI body motor pumpset Makes: Flowell / Waterman / Ellen / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha	1	No	7720.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-5.10.3	Supply and Transportation of----- -----Single phase ISI Mono block CI body motor pumpset. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1195	a	1.00 HP (25x25mm).	1	No	15750.00
1196	b	1.50 HP (32x25mm).	1	No	21000.00
	ELEC-5.10.4	Supply and Transportation of----- -----Single phase ISI Mono block CI body motor pumpset.Makes: Varuna / Flowell / Waterman / Ellen / LPS Varsha / Narayani / Sai Varsha / Duke / Samudra / Ajantha			
1197	a	1.00 HP (25x25mm).	1	No	12495.00
1198	b	1.50 HP (32x25mm).	1	No	15540.00
	ELEC-5.10.5	Supply and Transportation of ----- ----- self priming Mono block IP44 motor pumpset. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1199	a	0.5 HP Single phase	1	No	5880.00
1200	b	1.00 HP Single phase	1	No	7770.00
1201	c	1.50 HP Single phase	1	No	11550.00
	ELEC-5.10.6	Supply and Transportation of ----- -----Mono block IP44 motor pumpset. Makes: Texmo / CRI / KSB / Aryenvarsha / Lubi / Falcon			
1202	a	2.00 HP Three phase	1	No	24990.00
1203	b	3.00 HP Three phase	1	No	38325.00
1204	c	5.00 HP Three phase	1	No	42840.00
1205	d	7.50 HP Three phase	1	No	53760.00
1206	e	10.0 HP Three phase	1	No	67935.00
	ELEC-5.10.7	Supply and Transportation of ----- -----self priming Mono block IP44 motor pumpset. Makes: Flowell / Waterman/ Ellen / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha			
1207	a	0.5 HP Single phase	1	No	5200.00
1208	b	1.00 HP Single phase	1	No	5355.00
1209	c	1.50 HP Single phase	1	No	9240.00
	ELEC-5.10.8	Supply and Transportation of ----- -----Mono block IP44 motor pumpset. Makes: Flowell / Waterman/ Ellen / Narayani / Sai Varsha / Sterling / Duke / Samudra / Ajantha			
1210	a	2.00 HP Three phase	1	No	17115.00
1211	b	3.00 HP Three phase	1	No	25410.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1212	c	5.00 HP Three phase	1	No	29400.00
1213	d	7.50 HP Three phase	1	No	34650.00
1214	e	10.0 HP Three phase	1	No	52500.00
	5.11	CONTROL PANEL BOARD FOR MOTORS			
1215	ELEC-5.11.1	Supply and Transportation of control panel for single phase submersible motors up to 3 HP @ 220V 50Hz operating range between 80 to 240V including supply and fixing of Direct - on - Line LK / SIEMENS / CROMPTON make Volt meter and Ammeter with starting and running capacitors assembled with ISI mark contactors and fitted with ISI mark MCB etc., complete.	1	No	10238.00
1216	ELEC-5.11.2	Supply and Transportation of control panel for three phase submersible motors up to 5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	15750.00
1217	ELEC-5.11.3	Supply and Transportation of control panel for three phase submersible motors above 5 HP up to 7.5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	18900.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1218	ELEC-5.11.4	Supply and Transportation of control panel for three phase submersible motors above 7.5 HP to 12.5 HP @ 415V 50Hz operating fitted with supply and fixing of Direct - on - Line LTLK /BCH/ SIEMENS / CROMPTON make, 0-500V Volt meter and 0-30A Ammeter, Indication lamps, selector switches, CTS, 32A TP MCB, Single phase preventor,suitable contactor to with stand low voltage pick up and high voltage resistant, with ISI marked capacitors assembled with ISI mark contactors and fitted with Legrand make ISI mark MCB etc., complete.	1	No	21525.00
		Note: If it is Out door panel add 10% extra on above.			
	5.12	UPVC PIPES AND FITTINGS			
	ELEC-5.12.1	Supply and delivery of UPVC Raising Column Pipes for submersible motors with both ends square threaded, with rubber 'O' rings with smooth inner surface which can take the minimum load of 2100 to 4000 Kgs weights. Makes : Ashirvad / Finolex / Waterflo / Apollo / Falcon / Hindware			
1219	a	Nominal diameter of Standard 42 / 32mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	242.00
1220	b	Nominal diameter of Standard 48 / 40mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	284.00
1221	c	Nominal diameter of Standard 60 / 50 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	420.00
1222	d	Nominal diameter of Standard 75 / 65 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	562.00
1223	e	Nominal diameter of Standard 88 / 80 mm UPVC pipe with standing upto 20 Kgs / CM2 upto 200 Mts	1	Mtr	798.00
	ELEC-5.12.2	SUITABLE HEAVY DUTY COUPLINGS FOR STANDARD PIPES			
1224	a	Nominal diameter of heavy duty couplings 42/32 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts Makes : Ashirvad / Finolex / Waterflo / Apollo.	1	No	74.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1225	b	Nominal diameter of heavy duty couplings 48/40 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts Makes : Ashirvad / Finolex / Waterflo / Apollo.	1	No	116.00
1226	c	Nominal diameter of heavy duty couplings 60/50 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts Makes : Ashirvad / Finolex / Waterflo / Apollo.	1	No	126.00
1227	d	Nominal diameter of heavy duty couplings 75/65 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts Makes : Ashirvad / Finolex / Waterflo / Apollo.	1	No	142.00
1228	e	Nominal diameter of heavy duty couplings 88/80 mm UPVC pipe (27 Kgs / CM 2) capable of with standing up to 27 Kgs / CM2 above 200 mts and upto 300 mts Makes : Ashirvad / Finolex / Waterflo / Apollo.	1	No	168.00
	ELEC-5.12.3	Supply and Delivery of CI Adopter Assembly Makes : Ashirvad / Finolex / Waterflo / Apollo.			
1229	a	1 1/2"	1	No	1229.00
1230	b	2"	1	No	1617.00
1231	c	2 1/2"	1	No	2520.00
	ELEC-5.12.4	Supply and Delivery of pump guard assembly with 2Nos SS Powder coated flange and 2Nos SS Rods with nut and colter pin. Makes : Ashirvad / Finolex / Waterflo / Apollo.			
1232	a	1 1/2"	1	No	683.00
1233	b	2"	1	No	735.00
1234	c	2 1/2"	1	No	998.00
1235	d	3"	1	No	1449.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	5.13	BOOSTER PUMPS			
	ELEC-5.13.1	Supply, Installation, Testing and Commissioning of Pressure Boosting pump with 24 Ltr MS stand, Pressure Switch, Pressure Gauge and all standard fittings fully automatic ON / OFF system, 2900 RPM with stainless steel casing and impellar suitable for --- - capacity complete in all respects. Make : Grundfoss	1	No	725.00
1236	a	0.5 HP	1	No	27825.00
1237	b	0.75 HP	1	No	29925.00
1238	c	1 HP	1	No	38850.00
1239	d	1.5 HP	1	No	49350.00
		Note: If any other make is used rate shall be decreased by 40%			
	5.14	REPAIRS TO MOTORS			
1240	ELEC-5.14.1	Rewinding of motor of table fan / wall bracket fan / Cabin Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of fan for original speed.	1	No	690.00
1241	ELEC-5.14.2	Rewinding of motor of 900mm ceiling Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of fan for original speed.	1	No	720.00
1242	ELEC-5.14.3	Rewinding of motor of 1200mm / 1400mm ceiling Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of fan for original speed.	1	No	740.00
1243	ELEC-5.14.4	Rewinding of motor of 900 / 1400 RPM 300mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of fan for original speed.	1	No	740.00
1244	ELEC-5.14.5	Rewinding of motor of 900 / 1400 RPM 375mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of fan for original speed.	1	No	880.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1245	ELEC-5.14.6	Rewinding of motor of 900 / 1400 RPM 450mm Exhaust Fan including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of fan for original speed.	1	No	1230.00
	ELEC-5.14.7	Rewinding of Electric motor up to and including.....HP, 3 Phase up to 1400 RPM of all types and makes with copper wire including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of motor for original speed.			
1246	a	Up to 1.00 HP	1	No	2265.00
1247	b	Above 1.00 HP up to 2.00 HP	1	No	2540.00
1248	c	Above 2.00 HP up to 3.00 HP	1	No	3045.00
1249	d	Above 3.00 HP up to 5.00 HP	1	No	5070.00
1250	e	Above 5.00 HP up to 7.50 HP	1	No	6090.00
1251	f	Above 7.50 HP up to 10.00 HP	1	No	7270.00
1252	g	12.50 HP up to 15.00 HP	1	No	8460.00
	ELEC-5.14.8	Rewinding of Submersible pums motor up to and including.....HP, 3 Phase up to 1400 RPM of all types and makes with copper wire including minor repairs, lubrication of ball bearings, bush bearings and replacing condenser, screws etc testing of motor for original speed.			
1253	a	Up to 5.00 HP	1	HP	2100.00
1254	b	Above 5.00 HP up to 25.00 HP	1	HP	2900.00
		Note: If it is in open well submersible, the rate shall be decreased by 40%			
	ELEC-5.14.9	Bearing of approved make for electric motor single phase / 3 phase AC ----- of all types.			
1255	a	Upto 1 HP	1	No	270.00
1256	b	Upto 2 to 3 HP	1	No	340.00
1257	c	Upto 5 to 7.5 HP	1	No	450.00
1258	d	Upto 10 to 12.5 HP	1	No	470.00
1259	e	Upto 15 to 20 HP	1	No	710.00
	ELEC-5.14.10	Supply of -----for table / cabin / pedestal / ceiling / exhaust fan complete with alignment of shaft and tested.			
1260	a	Bearing	1	No	205.00
1261	b	Bush / rubber / ring washers	1	No	110.00
1262	c	Capacitor	1	No	65.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1263	ELEC-5.14.1 1	EICHER model 11:10 with 100 H.P. direct injection 4 stroke engine with one spare wheel 3800 mm cabin high deck with jangla (full body) (4 wheeler) for generator	1	No	600000.00
	5.15	ACCESSORIES OF MOTORS			
	ELEC-5.15.1	Supply, Transportation and fixing of suitable pump guard set (2Nos SS), Flanges set (2 Nos) to protect and safe guard the pump and Motor from vibrations while starting and switching of the pumpset.			
1264	a	OD 42mm	1	No	480.00
1265	b	OD 48mm	1	No	570.00
1266	c	OD 60mm	1	No	820.00
1267	d	OD 75mm	1	No	985.00
1268	e	OD 80mm	1	No	1270.00
	ELEC-5.15.2	Supply, Transportation and fixing of seamless cast iron adopter assembly (Two Nos at bottom of the pipe to coupling to the pump set and the other at top end of the pipes) for installing the pump set with pipes including cost and conveyance of all materials, taxes etc., complete.			
1269	a	OD 42mm	1	No	710.00
1270	b	OD 48mm	1	No	820.00
1271	c	OD 60mm	1	No	1075.00
1272	d	OD 75mm	1	No	1385.00
1273	e	OD 80mm	1	No	1650.00
	ELEC-5.15.3	Supply, Transportation and fixing of -----90 °C bend with length of 20cm (Center to face) galvanised GI bends heavy duty with threaded at both ends for installing the pump set including cost and conveyance of all materials, taxes etc., complete.			
1274	a	50mm dia	1	No	285.00
1275	b	65mm dia	1	No	385.00
1276	c	80mm dia	1	No	485.00
	ELEC-5.15.4	Supply, Transportation and fixing of following MS threaded Flanges 2 Nos with nuts and bolts including cost and conveyance of all materials, taxes etc., complete.			
1277	a	50mm dia MS flanges set (2 Nos) 150mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	370.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1278	b	65mm dia MS flanges set (2 Nos) 165mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	520.00
1279	c	80mm dia MS flanges set (2 Nos) 175mm dia OD, 12mm thick each flange with required dia bolts and nuts.	1	No	555.00
	ELEC-5.15.5	Supply and erecting cast iron foot wall ball type / Flat type of size dia with strainer for negative suction etc complete.			
1280	a	80 mm	1	No	5460.00
1281	b	100 mm	1	No	7880.00
1282	c	150 mm	1	No	19400.00
1283	d	200 mm	1	No	32750.00
	ELEC-5.15.6	Supply, Transportation and fixing of --- ----- 450mm length, 12mm thickness and 75mm wide MS Clamp set with required nuts and bolts.			
1284	a	40 mm dia	1	No	410.00
1285	b	50 mm dia	1	No	480.00
1286	c	65 mm dia	1	No	510.00
1287	d	80 mm dia	1	No	680.00
1288	e	150 mm dia galvanised bore cover	1	No	260.00
1289	f	150 mm dia stainless steel bore cover	1	No	510.00
		SECTION - 6			
		AIR CONDITIONERS			
	6.1	INVERTER SPLIT AC UNITS (COOLING ONLY)			
	ELEC-6.1.1	Supply and Transportation of of INVERTER Model Cool type split AC unit with high wall mounted Single Split 100% copper indoor and outdoor condensing unit Hermetically sealed compressor suitable for operation on 230V, 50Hz, 1Phase AC supply capable of performing Heat cool dehumidifying air circulating and filtering with cooling and condensing units with 3.0 mts of copper piping, insulation kit and 4 mts of 4 core copper flexible chord (Voltage range 160- 264 volts) and cordless remote control with with warranty of compressor for 5 years and comprehensive maintenance for 2 years			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1290	a	1.5 TR 3 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Blue Star / Toshiba / Carrier / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	35150.00
1291	b	1.5 TR 5 Star capable of delivering 18000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshiba / Carrier / Blue Star / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	44000.00
1292	c	2.0 / 1.8 TR 3 Star capable of delivering 21600 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshiba / Carrier / Blue Star / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	46000.00
1293	d	2.0 / 1.8 TR 5 Star capable of delivering 21600 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Toshiba / Carrier / Blue Star / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	54000.00
	6.2	INVERTER CASSETTE TYPE AC UNITS			
	ELEC-6.2.1	Supply and Transportation of Inverter Cassette type AC unit with ceiling mounted indoor unit and outdoor condensing unit Hermetically sealed compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with Wireless remote controller, but without refrigerent piping and cable.with 2 years warranty and annual maintenance contract.			
1294	a	2.0 TR capable of delivering 24000 BTU/hr and above with operating on refrigerant R-32 / R-410 Makes : Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba / LG / Samsung / Lloyd or equivalent	1	No	83790.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1295	b	2.5 TR capable of delivering 30000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba / LG / Samsung / Lloyd or equivalent	1	No	108354.00
1296	c	3.0 TR Three Phase capable of delivering 42000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba / LG / Samsung / Lloyd or equivalent	1	No	126000.00
1297	d	4.0 TR Three Phase capable of delivering 48000 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / Mitsubishi Electric / Toshiba / LG / Samsung / Lloyd or equivalent	1	No	132300.00
	6.3	CHILLED WATER CASSETTE UNITS			
	ELEC-6.3.1	Supply, Transportation, Installation, Testing and Commissioning of ----- Chilled water Cassette unit complete with 3 speed having coil section, blower section, filter section, condensate drain pump, insulated extended drain tray, Supports, Copper piping connections, unions, incoming cable from MCB / Isolator to unit, 12 - 24 V step down Transformer for PIBC valve , Spring Return Actuators etc.,. Extended tray should be accommodated with Ball valves, PIBC motorized valves etc.,			
		Digital thermostat with remote sensing element with Cassette Unit Switch ON / OFF control compatible to the PIBC valve to control the room temperature to be included BMS etc., complete for finished item of work. Makes : Carry Air / Bhutoria or equivalent			
1298	a	1 TR (400 CFM) 1Way	1	No	36750.00
1299	b	1 TR (400 CFM) 2Way	1	No	38850.00
1300	c	1 TR (400 CFM) 4Way	1	No	40950.00
1301	d	1.5 TR (600 CFM) 1Way	1	No	45150.00
1302	e	1.5 TR (600 CFM) 2Way	1	No	47250.00
1303	f	1.5 TR (600 CFM) 4Way	1	No	50400.00
1304	g	2 TR (800 CFM) 1Way	1	No	47250.00
1305	i	2 TR (800 CFM) 4Way	1	No	53550.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1306	j	2.5TR (1000 CFM) 4Way	1	No	58800.00
1307	k	3.0 TR (1200 CFM) 4Way	1	No	60900.00
1308	l	3.75 TR (1500 CFM) 4Way	1	No	63000.00
	ELEC-6.3.2	Supply, installation, testing and commissioning of modulating 2 way valve with package assembly with on / off actuator, required control cabling between valve and actuator etc complete for finished item of work.			
1309	a	Valve Package Assembly 2 way 20mm / PIBC valve (DN 20) with Modulating actuator.	1	No	13000.00
1310	b	Valve Package Assembly 2 way 25mm / PIBC valve (DN 25) with Modulating actuator.	1	No	14000.00
	6.4	TOWER MODEL TYPE AC UNITS			
	ELEC-6.4.1	Supply and Transportation of Slim line / Tower Model/Verticool type split AC unit with 100% copper indoor unit and floor mounted outdoor condensing unit Hermetically sealed Scroll compressor suitable for operation on AC supply capable of performing cooling dehumidifying air circulating and filtering with cooling and condensing units etc complete with cordless remote control with 2 years warranty and annual maintenance contract.			
1311	a	2.0 TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	75600.00
1312	b	3.0 / 3.3 TR Three Phase capable of delivering 39600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	115500.00
1313	c	4.0 / 3.8 TR Three Phase capable of delivering 45600 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	121800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1314	d	4.5 / 4.6 TR Three Phase capable of delivering 55200 BTU/hr and above with operating on refrigerant R-32 / R-410 Daikin / Bluestar / Hitachi / LG / Samsung / Lloyd or equivalent	1	No	128100.00
	6.5	AIR HANDLING UNITS			
	ELEC-6.5.1	Supply, installation, testing and commissioning of factory built chilled water double skin type horizontal/vertical floor/ceiling mounted air handling unit made of minimum 40mm thick panels consisting of pre-plastisized GI casing of thickness not less than 0.8mm outside layer and 0.8mm inside layer with polyurethane (PUF)/ mineral wool insulation between them. All doors and floor of AHU shall be of same thickness as of casing. The AHU shall be complete with blower section with AMCE certified blower suitable for static pressure of required.			
		Cooling coil section with aluminum finned copper tubes (tube thickness not less than 0.5mm), cooling coil of 6 row deep, filter section with 50mm thick metal mesh / washable synthetic type Air Pre Filter with filtration efficiency 90% down to 10 micron particle size, suitable drive package with TEFC drive motor with efficiency Class IE3 or EFF1 which ever is more efficient suitable for 415+/- 10% volts, 50 Hz, 3 Phase AC supply, drine connection, stainless steel (20G drain pan) with insulation, Auto purge valve wherever required necessary vibration isolation arrangement etc., complete as follows. The AHU shall be forward / backward curved centrifugal fan, Belt driven motor / Plug Fan. The AHU coil shall be AHRI/Eurovent certified. TSP 50mm Makes : System Air / VTS / Carry Air / Edge Tec			
1315	a	1200 CFM (3.0 TR)	1	No	66150.00
1316	b	1600 CFM (4.0 TR)	1	No	84000.00
1317	c	2000 CFM (5.0 TR)	1	No	110250.00
1318	d	2400 CFM (6.0 TR)	1	No	132300.00
1319	e	2800 CFM (7.0 TR)	1	No	154350.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1320	f	3200 CFM (8.0 TR)	1	No	176400.00
1321	g	4000 CFM (10.0 TR)	1	No	220500.00
1322	h	4400 CFM (11.0 TR)	1	No	242550.00
1323	i	4800 CFM (12.0 TR)	1	No	264600.00
1324	j	5600 CFM (14.0 TR)	1	No	308700.00
1325	k	6000 CFM (15.0 TR)	1	No	330750.00
1326	l	6400 CFM (16.0 TR)	1	No	353000.00
1327	m	6800 CFM (17.0 TR)	1	No	375000.00
1328	n	7200 CFM (18.0 TR)	1	No	396900.00
1329	o	7600 CFM (19.0 TR)	1	No	399000.00
1330	p	8000 CFM (20.0 TR)	1	No	441000.00
1331	q	8400 CFM (21.0 TR)	1	No	463000.00
1332	r	8800 CFM (22.0 TR)	1	No	485000.00
1333	s	9200 CFM (23.0 TR)	1	No	507150.00
1334	t	9600 CFM (24.0 TR)	1	No	529200.00
1335	u	10000 CFM (25.0 TR)	1	No	551250.00
1336	v	12000 CFM (30.0 TR)	1	No	661500.00
1337	w	14000 CFM (35.0 TR)	1	No	771750.00
	6.6	CHILLED WATER PIPING			
1338	ELEC-6.6.1	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respects. Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			
		1. MS Pipe duly insulated with EPS and covered with 26 gauge aluminium cladding sheet. Insulation for the chilled water piping Inside the AHU room & Plant room with TF quality XLPE moulded pipe section of density 20 kg/cu.m after a thick coat of adhesive wrapping with 500g polythene faced hessain and finally applying 26gauge aluminium sheet cladding., as per specifications and as required complete in all respects.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1339	a	400mm dia pipe with 75mm thick insulation	1	Mtr	13750.00
1340	b	300mm dia pipe with 75mm thick insulation	1	Mtr	10780.00
1341	c	250 mm dia pipe with 75mm thick insulation	1	Mtr	9735.00
1342	d	200 mm dia pipe with 75mm thick insulation	1	Mtr	6490.00
1343	e	150 mm dia pipe with 75mm thick insulation	1	Mtr	6160.00
1344	f	100 mm dia pipe with 50mm thick insulation	1	Mtr	2970.00
1345	g	80 mm dia pipe with 50mm thick insulation	1	Mtr	2640.00
1346	h	65 mm dia pipe with 50mm thick insulation	1	Mtr	2200.00
1347	i	50 mm dia pipe with 50mm thick insulation	1	Mtr	1870.00
1348	j	40 mm dia pipe with 50mm thick insulation	1	Mtr	1470.00
1349	k	32 mm dia pipe with 50mm thick insulation	1	Mtr	1260.00
1350	l	25 mm dia pipe with 50mm thick insulation	1	Mtr	920.00
1351	ELEC-6.6.2	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respects. Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		MS Pipes with insulated with EPS covered with 7 mil fibreglass fabric & AF590 Lag coating Insulation for the chilled water piping Inside the HVAC shafts & inside building etc : TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m and shall be covered with 7 mil fibreglass fabric finished with AF5590 Lag coating., as per specifications and as required complete in all respects. Makes: Tata / Jindal			
1352	a	300mm dia pipe with 75mm thick insulation	1	Mtr	10450.00
1353	b	250 mm dia pipe with 75mm thick insulation	1	Mtr	9350.00
1354	c	200 mm dia pipe with 75mm thick insulation	1	Mtr	7590.00
1355	d	150 mm dia pipe with 75mm thick insulation	1	Mtr	6270.00
1356	e	100 mm dia pipe with 50mm thick insulation	1	Mtr	3740.00
1357	f	80 mm dia pipe with 50mm thick insulation	1	Mtr	2640.00
1358	g	65 mm dia pipe with 50mm thick insulation	1	Mtr	2310.00
1359	h	50 mm dia pipe with 50mm thick insulation	1	Mtr	1680.00
1360	i	40 mm dia pipe with 50mm thick insulation	1	Mtr	1525.00
1361	j	32 mm dia pipe with 50mm thick insulation	1	Mtr	1470.00
1362	k	25 mm dia pipe with 50mm thick insulation	1	Mtr	1030.00
1363	ELEC-6.6.3	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with TF quality expanded polystyrene moulded pipe section of density 20 kg/cu.m., as per specifications and as required complete in all respects. Note : The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		MS Pipes with insulated with EPS covered with chicken wire mesh and finised with sand cement plaster. Insulation for the chilled water piping out side the building burried in ground : TF quality expanded polystrene moulded pipe section of density 20 kg/cu.m after a thick coat of adhesive wrapping with 500g polythene faced hessain and secured with 0.5mm x 20mm G.I wire mesh and two coats of cement plaster (each layer not less than 10mm) as per specifications and as required complete in all respects.			
1364	a	400mm dia pipe with 75mm thick insulation	1	Mtr	13750.00
1365	b	300mm dia pipe with 75mm thick insulation	1	Mtr	11770.00
1366	c	250 mm dia pipe with 75mm thick insulation	1	Mtr	10560.00
1367	d	200 mm dia pipe with 75mm thick insulation	1	Mtr	8360.00
	6.7	REPAIRS TO AIR CONDITIONERS			
1368	ELEC-6.7.1	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of split AC unit.	1	Set	960.00
	ELEC-6.7.2	Providing 2 runs of Copper tubes for suction and liquid between indoor and outdoor unit for split/Casseete Air-Conditioner including foaming etc., complete.			
1369	a	1. 3/4" x 3/8"2. 5/8" x 1/4"3. 1/2" x 1/4" or equivalent sizes	1	Mtr	990.00
1370	b	7/8" x 1/2"	1	Mtr	1570.00
1371	c	1 1/8" x 5/8"	1	Mtr	1840.00
1372	ELEC-6.7.3	Supply of 1.0 / 1.5 Ton brand new Rotary type sealed compressor.	1	No	8160.00
1373	ELEC-6.7.4	Supply of 2.0 Ton brand new Rotary type sealed compressor.	1	No	9260.00
1374	ELEC-6.7.5	Multi speed Fan Motor suitable for 1.0 / 1.5 / 2.0 Ton Window A.C.Unit of makes Crompton / AU.	1	No	1600.00
1375	ELEC-6.7.6	Fan motor capacitor 6 mfd by new capacitor for A.C machine of 1.0 1.5 / Ton Capacity.	1	No	160.00
1376	ELEC-6.7.7	Thermostat switch suitable for 1.0 / 1.5 / 2.0 Ton A.C.Unit.	1	No	415.00
1377	ELEC-6.7.8	Starting capacitor of 80 to 120 mfd. by new approved make capacitor suitable for compressor motor of 1.0 / 1.5 Ton A.C. Unit.	1	No	205.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1378	ELEC-6.7.9	Running capacitor of 36 mfd by new approved make capacitor suitable for compressor motor of 1.0 / 1.5 Ton A.C.Unit.	1	No	245.00
1379	ELEC-6.7.10	Relay by approved make having pickup voltage 220 Volts and dropout voltage 120 Volts suitable for 1.0 / 1.50 Ton A.C. Unit.	1	No	225.00
1380	ELEC-6.7.11	Filter and capillary tube including welding etc., complete for 1.0 / 1.5 / 2.0 Ton A.C.Unit.	1	No	490.00
1381	ELEC-6.7.12	Air filter suitable for 1.50 Ton Window A.C.Unit P.V.C. / NYLON.	1	No	225.00
1382	ELEC-6.7.13	Air filter suitable for 1.50 Ton Split A.C.Unit P.V.C. / NYLON.	1	No	480.00
1383	ELEC-6.7.14	Rewiring the entire Window type 1.50 Ton A.C.unit with 2.5 Sq.mm Flexible copper cable and putting the same in working conditions.	1	No	325.00
1384	ELEC-6.7.15	Complete servicing of 1.0 - 2.0 TR AC unit with cleaning the condensor cooling Coil etc., by blower and oiling the Fan Motor and Cleaning all parts and putting the machine in working condition.	1	No	550.00
1385	ELEC-6.7.16	Fan blade for 1.0 / 1.5 Ton A.C.Machine.	1	No	560.00
1386	ELEC-6.7.17	Grill of 1.0 / 1.5 ton A.C. Machine (for assembled Units).	1	No	980.00
1387	ELEC-6.7.18	Grill of 1.0 / 1.5 ton A.C. Machine of branded units.	1	No	1700.00
1388	ELEC-6.7.19	Rotary / Selector switch for window AC.	1	No	115.00
1389	ELEC-6.7.20	Flushing the line, leak testing, leak stopping, vaccumming, dehydrating and charging the gas in the refrigeration system for 1.0 / 1.5 / 2.0 Ton Window A.C.Unit.	1	No	1690.00
1390	ELEC-6.7.21	Flushing the line, leak testing, leak stopping, vaccumming, dehydrating and charging the gas in the refrigeration system for 1.5 / 2.0 Ton Split A.C.Unit.	1	No	2360.00
1391	ELEC-6.7.22	Spray painting of Refrigerator using good quality paint after scraping the surface etc.	1	No	810.00
1392	ELEC-6.7.23	Sealed compressor of 1/8 HP suitable for 165 to 185 Ltrs. Capacity Refrigerator.	1	No	3100.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1393	ELEC-6.7.24	Sealed compressor of 1/6 HP suitable for 285 / 310 Ltrs. Capacity Refrigerator.	1	No	3750.00
1394	ELEC-6.7.25	Supply of fan motor by new 1/10 to 1/12 H.P 1250 RPM fan motor for Water Cooler of 80-150 Ltrs.	1	No	1600.00
1395	ELEC-6.7.26	Gun metal Bush for fan motor.	1	No	130.00
1396	ELEC-6.7.27	Resistance type regulator for ceiling fans 900/1200/1400mm sweep complete erected on existing board.	1	No	45.00
1397	ELEC-6.7.28	Installation of Split Air Conditioners.	1	No	1760.00
1398	ELEC-6.7.29	Removing of existing Split Air Conditioners without damaging to copper pipe.	1	No	475.00
1399	ELEC-6.7.30	Installation of Cassette type Split Air Conditioners.	1	No	3530.00
1400	ELEC-6.7.31	Installation of Tower type Split Air Conditioners.	1	No	2920.00
1401	ELEC-6.7.32	Supply, Fabrication of 1set MS bracket suitable for fixing out door unit of ductable AC unit.	1	Set	1875.00
	6.8	EVAPORATIVE AIR COOLING SYSTEM			
1402	ELEC-6.8.1	Supply, Transportation, Installation, testing and commissioning of single phase evaporative air cooling unit with a capacity of 8000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, single phase 1.20 KW motor axial type fan with variable speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water leak protection etc complete. Makes: Cool Breeze / Breeze Air or equivalent	1	No	102690.00
1403	ELEC-6.8.2	Supply, Transportation, Installation, testing and commissioning of single phase evaporative air cooling unit with a capacity of 11000 - 12000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 40W, single phase 1.20 KW / 1.5 KW motor axial type fan with variable speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water leak protection etc complete. Makes: Cool Breeze / Breeze Air	1	No	121328.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1404	ELEC-6.8.3	Supply, Transportation, Installation, testing and commissioning of three phase evaporative air cooling unit with a capacity of 17000 CFM consisting cabinet and water tank made of polypropylene material, blower water pump of 60W, three phase, 3.0 KW motor, axial type fan with 2 speed, 20 micron filtration, noise level less than 78 dBA with auto cleaning and water leak protection etc complete. Makes: Cool Breeze / Breeze Air or equivalent	1	No	168000.00
	ELEC-6.8.4	Supply, Factory fabrication, Transportation and erection of guage GI sheet Rectangular ducting with minimum 120 GSM as per SMACNA complete with neoprene rubber gaskets, Elbows, sheet metal / Angle iron / C-cleats / TPF Flanges as required, G.I.fasteners, bolts, nuts and washers, guide vanes as required, supports shall be galvanised threaded rods etc complete.Makes : Tata / Zindal			
1405	a	18 Guage (1.2 mm)	1	Sqft	175.00
1406	b	20 Guage (1.0 mm)	1	Sqft	160.00
1407	c	22 Guage (0.8 mm)	1	Sqft	145.00
1408	d	24 Guage (0.6 mm)	1	Sqft	120.00
	ELEC-6.8.5	Supply, Factory fabrication, Transportation and erection of guage GI sheet Spiral / Round ducting with minimum 120 GSM as per SMACNA complete with neoprene rubber gaskets, Elbows, sheet metal / Angle iron / C-cleats as required, G.I.fasteners, bolts, nuts and washers, guide vanes as required, supports shall be galvanised threaded rods etc complete. 9 /12 mm thick self adhesive class 'O' nitrille rubber insulation shall be done inside the ducting. Makes : Tata / Zindal			
1409	a	18 Guage (1.2 mm)	1	Sqft	195.00
1410	b	20 Guage (1.0 mm)	1	Sqft	180.00
1411	c	22 Guage (0.8 mm)	1	Sqft	160.00
1412	d	24 Guage (0.6 mm)	1	Sqft	130.00
		THERMAL INSULATION			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-6.8.6	DUCT Insulation for INDOOR Supply and fixing of mm thickness XLPE foam with factory reinforced alluminium foil facing and Class O fire properties, at very low fire propagation < 5.5, and as per EN 13501-1 and E-84, the density of foam should not be less than 20 Kg to 30 Kg / M3 and the maximum thermal conductivity K should be 0.032 W / mK @ 23 degree C, the permeability resistance factor should not be less than 97000 as per EN 12086.			
1413	a	6 mm	1	Sqmt	530.00
1414	b	9 mm	1	Sqmt	750.00
1415	c	12 mm / 13 mm	1	Sqmt	995.00
1416	d	19 mm	1	Sqmt	1195.00
1417	e	25 mm	1	Sqmt	1725.00
	ELEC-6.8.7	DUCT Insulation for OUTDOOR Supply and fixing of mm thickness XLPE foam with factory laminated heavy duty and ultra tough multi layered alluminium foil facing with puncture resistance of > 400 N and Class O fire properties as per BS-476 Part - 6 & 7, the density of foam should not be less than 20 Kg to 30 Kg / M3 and the maximum thermal conductivity K should be 0.032 W / mK @ 23 degree C, the permeability resistance factor should not be less than 97000 as per EN 12086.			
1418	a	6 mm	1	Sqmt	650.00
1419	b	9 mm	1	Sqmt	880.00
1420	c	12 mm / 13 mm	1	Sqmt	1190.00
1421	d	19 mm	1	Sqmt	1450.00
1422	e	25 mm	1	Sqmt	2030.00
1423	ELEC-6.8.8	Supply and fixing of 40mm thick thermocole insulation of 16 kg density with GI mesh and 12mm thick cement mortar plastering for out door unit.	1	Sqft	100.00
1424	ELEC-6.8.9	Supply and fixing of 40mm thick glasswool of 24 kg density with alluminium foil insulation for indoor duct.	1	Sqft	80.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1425	ELEC-6.8.10	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, flanges etc as per specifications. The thickness of the damper frame shall be 16 guage and damper plate shall be 18 / 16 guage.	1	Sqft	1160.00
1426	ELEC-6.8.11	Supply and fixing of alluminium powder coated supply air grill with volume control dampers.	1	Sqft	890.00
1427	ELEC-6.8.12	Supply and fixing of alluminium powder coated supply air grill without volume control dampers.(Architect shall approve the shade of epoxy power coating for the grills for supply and return air)	1	Sqft	770.00
1428	ELEC-6.8.13	Supply and fixing of alluminium powder coated supply air diffuser with volume control dampers. (Architect shall approve the shade of epoxy power coating for the grills for supply and return air)	1	Sqft	1015.00
1429	ELEC-6.8.14	Supply and fixing of alluminium powder coated supply air diffuser without volume control dampers. (Architect shall approve the shade of epoxy power coating for the diffuser for supply and return air)	1	Sqft	870.00
1430	ELEC-6.8.15	Supply and fixing of angular iron frame with 2 coats of zincromat red oxide for installation of air cooling unit.	1	No	6310.00
1431	ELEC-6.8.16	Installation and commissioning charges for air cooling unit.	1	No	5260.00
	ELEC-6.8.17	Supply, installation, testing and commissioning of the drain pipe with CPVC pipes with all accessories and insulation with 6mm thick closed cell nitrile rubber of the following sizes, with all required accessories Makes : Astral / Ashirvad or equivalent approved by the department			
1432	a	20 mm	1	Mtr	195.00
1433	b	25 mm	1	Mtr	290.00
1434	c	32 mm	1	Mtr	365.00
1435	d	40 mm	1	Mtr	475.00
1436	e	50 mm	1	Mtr	555.00
1437	f	63 mm	1	Mtr	585.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	6.9	VRF / VRV HVAC SYSTEM			
	ELEC-6.9.1	Supply, Transportation, Installation, Testing and Commissioning of HP Variable refrigerant Volume (VRV) / variable refrigerant flow (VRF) Air Cooled Outdoor Units (ODU) suitable for cooling and heating having 100% thermetically sealed inverter type compressor and minimum 2 compressors along with 2 condensing fans above 14 / 18 HP Modules, Microprocessor based controller, Side / Top Discharge type condensing units with R-410 A refrigerant, vibration isolators with suitable foundation etc., complete as required. The outdoor unit shall deliver the rated capacity at AHRI conditions and work even at 50 ° centigrade ambient temperature without tripping.			
		The unit shall be suitable to work on 430 V +/- 10%, 3 phase 50 Hz AC Power supply etc., complete finished item of work including comprehensive maintenance of units during the defect liability period. Makes: Blue star / Hitachi / Daikin/ Mitsubishi Electric or equivalent models approved by the Engineer-in-Charge.			
1438	a	6 HP			173250.00
1439	b	8 HP			231000.00
1440	c	10 HP			288750.00
1441	d	12 HP			346500.00
1442	e	14 HP			404250.00
1443	f	16 HP			462000.00
1444	g	18 HP			519750.00
1445	h	20 HP			577500.00
1446	i	24HP			693000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		4 WAY - CASSETTE TYPE INDOOR UNITS			
	ELEC-6.9.2	Supply of TR nominal capacity 4way- Cassette type VRV / VRF IDU. The units shall be powder coated galvanized steel housing equipped with pre filter, fan section, coil section, with inbuilt Condensate drain pump kit, etc. The body shall be light in weight and shall be able to suspend from four corners. The fan shall be mounted directly on motor shaft having supported from housing, statically and dynamically balanced and direct driven type. This should include required size of acoustically treated plenums with outlet collars with dampers , fire retarded flexible connections, etc including remote control with suitable angle frame and painting to the supports etc for finished item of work including comprehensive maintenance of units during the defect liability period. Makes: Blue star / Hitachi / Daikin/ Mitsubishi Electric or equivalent models approved by the Engineer-in-Charge.			
1447	a	0.8 TR nominal capacity 4way- Cassette type IDU			52575.00
1448	b	1.0 TR nominal capacity 4way- Cassette type IDU			54040.00
1449	c	1.2 TR nominal capacity 4way- Cassette type IDU			57080.00
1450	d	1.6 TR nominal capacity 4way- Cassette type IDU			58205.00
1451	e	2.0 TR nominal capacity 4way- Cassette type IDU			59685.00
1452	f	2.4 TR nominal capacity 4way- Cassette type IDU			66565.00
1453	g	3.2 TR nominal capacity 4way- Cassette type IDU			67825.00
1454	h	4.0 TR nominal capacity 4way- Cassette type IDU			71010.00
1455	i	4.6 TR nominal capacity 4way- Cassette type IDU			33380.00
		1 WAY - CASSETTE TYPE INDOOR UNITS			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-6.9.3	Supply of TR nominal capacity 1way- Cassette type VRV / VRF IDU. The units shall be powder coated galvanized steel housing equipped with pre filter, fan section, coil section, with inbuilt Condensate drain pump kit, etc. The body shall be light in weight and shall be able to suspend from four corners. The fan shall be mounted directly on motor shaft having supported from housing, statically and dynamically balanced and direct driven type. This should include required size of acoustically treated plenums with outlet collars with dampers , fire retarded flexible connections, etc including remote control with suitable angle frame and painting to the supports etc for finished item of work including comprehensive maintenance of units during the defect liability period. Makes: Blue star / Hitachi / Daikin/ Mitsubishi Electric or equivalent models approved by the Engineer-in-Charge.			
1456	a	1.0 TR nominal capacity 1way- Cassette type IDU			60110.00
1457	b	1.2 TR nominal capacity 1way- Cassette type IDU			63120.00
1458	c	1.6 TR nominal capacity 1way- Cassette type IDU			64190.00
1459	d	2.0 TR nominal capacity 1way- Cassette type IDU			66320.00
1460	e	2.4 TR nominal capacity 1way- Cassette type IDU			72860.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-6.9.4	Supply of TR VRV high wall mounted type indoor unit operating on single phaes 220V, 50Hz AC supply comprising of prefilter fan, density & population sensor, section, with low noise fan, multispeed motor coil section with DX coil, outer cabinet, drain water lift- up mechanism, insulation, including all types of Refrigerant pipe joint kit connections, fresh air intake, with cordless remote controller etc., including comprehensive maintenance of units during the defect liability period. Makes: Blue star / Hitachi / Daikin/ Mitsubishi Electric or equivalent models approved by the Engineer-in-Charge.			
1461	a	0.6 TR			35340.00
1462	b	0.8 TR			35770.00
1463	c	1.0 TR			36460.00
1464	d	1.2 TR			37710.00
1465	e	1.65 TR			38815.00
1466	f	2.0 TR			39820.00
	6.10	VRV / VRF DUCTABLE UNITS			
	ELEC-6.10.1	Supply of TR minimum capacity and external static pressure VRV/ VRF ceiling mounted ductable type indoor unit equipped with washable synthetic media pre-filter, fan section with low noise fan / dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drain pipe, prain pump, other necessay supports etc., suitable for operation on single phase AC supply 230V +/- 10% , 50Hz complete as required. Makes: Blue star / Hitachi / Daikin/ Mitsubishi/ LG/ Voltas or equivalent models approved by the Engineer-in-Charge.			
		The unit shall have automatic force shutdown valve in case of fire on receiving signal from BMS system. The cooling capacity of indoor unit will be at air inlet conditions of 27°C DB and 19°C WB temperature. All as per pre approved by Engineer-In-Charge.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	(A)	Low Static ductable Units (19 to 30 pascal external static pressure)			
1467	a	0.8 TR			45750.00
1468	b	1.0 TR			48070.00
1469	c	1.2 TR			49400.00
1470	d	1.6 TR			57050.00
1471	e	2.0 TR			54230.00
1472	f	2.4 TR			59900.00
	(B)	Mid Static ductable Units (35 to 77 pascal external static pressure)			
1473	a	3.2 TR			69580.00
1474	b	4.0 TR			78430.00
1475	c	4.6 TR			90890.00
	(C)	High Static ductable Units (78 pascal or above external static pressure)			
1476	a	5.5 TR			131200.00
1477	b	6.6 TR			141810.00
1478	c	8.0 TR			152190.00
1479	d	13.0 TR			210990.00
1480	e	16.0 TR			245555.00
	ELEC-6.10.2	Lifting, shifting of unit to terrace, installation, testing & commissioning of VRV / VRF outdoor units of the following capacities with required supports with necessary bolts, screws and nut etc complete upto 7th floor			
1481	a	6 HP	1	No	4500.00
1482	b	8 HP	1	No	5000.00
1483	c	10 HP	1	No	5560.00
1484	d	12HP	1	No	6550.00
1485	e	14HP	1	No	7650.00
1486	f	16HP	1	No	8720.00
1487	g	18HP	1	No	9830.00
1488	h	20HP	1	No	10940.00
1489	i	24 HP	1	No	13120.00
	ELEC-6.10.3	Shifting of Unit to room , Installation, Testing & Commissioning of VRV / VRF indoor units (4way-Cassette) of the following capacities required supports with necessary bolts, screws and nut etc complete .			
1490	a	4-way Cassette type Indoor A.C units	1	No	3320.00
1491	b	Concealed type ducted type Indoor A.C units	1	No	5510.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Flexible Canvas Connection:			
	ELEC-6.10.4	Supply and fixing of fire retardant, non porous double layer canvas of required size with GI frame, Gasket Nut bolts for air cooling plants / AHU's / FCU's etc., complete with marking connections etc., as required all as per approved by Engineer-In-Charge.	1	No	1895.00
		COPPER TUBING FOR VRF / VRV SYSTEM			
1492	ELEC-6.10.5	Supply, installation, testing and commissioning of 2 runs of following sizes of all refrigerant liquid and gas piping using eddy current free hard copper pipes and fittings like elbows, couplers, T - joints, Brass fittings "U" loops, expansion loops, refnet joints etc, for VRV / VRF System.	1	Mtr	2200.00
		Insulation of pipes using 19mm for supply and 13mm returns thick elastometric closed cell nitrile rubber insulation materials having class "O" for fire properties structural clamps with hard PVC pipes sleeves under the clamp to protect insulation at supports tagging to enable tracing connectivity to respective units as per drawings to be generated by the agency submission of test reports in approved format forms a part of this item scope, making up of any leakages including supply, labour, consumables, refrigerant top up and incidental expenses. Makes : Mandev / or Equivalent as approved by the department			
		a)12.7 X 28.6mm b)15.9 X 28.6mm c)19.1 X 34.9mm d)19.1 X 41.3mm e)22.2 X 41.3mm			
1493	ELEC-6.10.6	Supply and installation of Refnet Joint	1	No	6000.00
		STANDS FOR VRF OUTDOOR UNITS			
1494	ELEC-6.10.7	Supply, transportation and installation of Hot- Dip GI floor mounting support stands for VRF outdoor units (positioned on Terrace or floor level), as per the standards with all necessary components, etc (Big Foot System)			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1495	a	Upto and below 12 HP	1	No	7970.00
1496	b	12 to 20HP	1	No	13775.00
1497	c	22HP to 40HP	1	No	27535.00
1498	ELEC-6.10.8	Pressure testing and commissioning of total VRV System with required Gas charging etc complete	1	HP	970.00
1499	ELEC-6.10.9	Supply, transportation and installation of Copper piping outdoor insulation covered with fibre glass cloth, coated with UV paint	1	Mtr	260.00
1500	ELEC-6.10.10	Supply, installtion, testing and commissioning of fire damper with fuse link UL-555 certified	1	Sqft	770.00
1501	ELEC-6.10.11	Supply, installtion, testing and commissioning of Acoustic insullation 10 mm thick open cell nitrile rubber	1	Sqft	95.00
1502	ELEC-6.10.12	Supply, installation, testing & commissioning of underdeck insulation 25mm thickness, density to be 32kg/cum the material should be Class O chemically cross linked closed cell polyethylene sheet covered with Alupet foil. Insulation to be provided complete for fittings, adhesive etc all as per specifications. The insulation shall be stuck directly to the roof using proper fixing.	1	Sqft	65.00
		CORE CUTTING			
	ELEC-6.10.13	Making hole in stone masonry / RCC Wall / RCC slab with core cutter for accommodating refrigerant pipe / drain pipe / MS pipe / cables etc., of Dia per running inch length			
1503	a	50 mm	1	Inch	80.00
1504	b	100 mm	1	Inch	165.00
1505	c	150 mm	1	Inch	250.00
1506	d	200 mm	1	Inch	340.00
		TRAP DOOR			
1507	ELEC-6.10.14	Supply and fixing of trap door for AHU / FCU in existing false ceiling duly made from 12 mm thick laminated board, hinged with wooden frame of cheed wood size 50mm x 80 mm, frame suspended with MS strip of 25 x 6 mm with anchor fastener minimum 8 supports from ceiling, hinges, locking arrangements etc., as required.	1	Sq Mtr	5180.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	6.11	Storage Water coolers:			
	ELEC-6.11.1	Supply, Installation, Testing and Commissioning of cooling capacity, ... storage capacity self contained drinking water cooler as per IS : 1475 with hermetically sealed compressor, non CFC refrigerant suitable for operation on 230 V , 1 phase, 50 Hz AC supply, Fully stainless steel (SS 304) body (0.8 mm thick) and tank (0.5 mm thick), stainless steel water tray, minimum 2 numbers SS / Brass chrome plated faucets and suitable drainage system complete in all respects including comprehensive maintenance of units during the defect liability period. Makes : Bluestar / Voltas			
1508	a	Cooling capacity of 20 Ltr/ Hr , 40 Ltr Storage capacity			38000.00
1509	b	Cooling capacity of 40 Ltr/ Hr , 80 Ltr Storage capacity			59305.00
1510	c	Cooling capacity of 60 Ltr/ Hr , 120 Ltr Storage capacity			66039.00
1511	d	Cooling capacity of 150 Ltr/ Hr , 150 Ltr Storage capacity			77775.00
	6.12	STABILIZERS			
	ELEC-6.12.1	Supply of ----- Stabilizer Makes : V-Guard / Real Guard / Uni Stab / ITL.			
1512	a	0.5 KVA	1	No	1115.00
1513	b	1.0 KVA .	1	No	1820.00
1514	c	3.0 KVA	1	No	2305.00
1515	d	4.0 KVA	1	No	3030.00
1516	e	5.0 KVA	1	No	3640.00
	ELEC-6.12.2	Supply of ----- Stabilizer Makes : Keeline / Soft Line / Capri.			
1517	a	0.5 KVA	1	No	875.00
1518	b	1.0 KVA .	1	No	1565.00
1519	c	3.0 KVA	1	No	2010.00
1520	d	4.0 KVA	1	No	2765.00
1521	e	5.0 KVA	1	No	3320.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		SECTION - 7			
	7.1	CCTV and ACCESS CONTROL SYSTEM			
		CCTV			
1522	ELEC-7.1.1	Supply, Transportation, Installation, Testing and Comissioning of 2MP Dome camera 1/2.8" CMOS progressive sensor, 2.7 to 13mm Motorized lens, min. illumination 0.006 Lux F1.6 (color), 0 Lux B/w, 50dB S/N ratio; 1/8 ~1/32000 shutter speed, Max 30 fps, IR distance - 40Mtr or better, 120 dB or better WDR, triple stream, Protocal : IPv4, TLS, DHCP, IPv6, TCP / IP, HTTP, SMTP, UDP, HTTPS, RTSP / RTP / RTCP,DNS,SNMP, IGMP / Multicast, NTP, QoS, 802.1X, ICMP, ARP; Line crossing, Face Detection, Motion Detecton, People counting, Intrusion, Loitering, SMD, Tampering; local storage : up to 256GB; Alarm IN & Outputs, Audio IN & Out; ONVIF-S, G, T, M; Security: HTTPS, Digest authentication, User account and password protection,TLS1.2 only, Stream encryption, AES128 / Telnet closed, IP Filter, PCI-DSS compliance; IP67,IK10, UL,CE,FCC, NDAA Compliant including 5 yrs warranty to be obtained from the OEM. MAKES: Bosch / Honeywell / Axis / Mobotix. or equivalent as approved by Department	1	No	26110.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1523	ELEC-7.1.2	Supply, Installation, Testing and Commissioning of 2MP Bullet camera 1/2.8" CMOS progressive sensor, 2.7 to 13mm Motorized lens, min. illumination 0.006 Lux F1.6 (color), 0 Lux B/w, 50dB S/N ratio; 1/8 ~1/32000 shutter speed, Max 30 fps, IR distance - 60Mtr or better, 120 dB or better WDR, triple stream; Protocol: IPv4, TLS, DHCP, IPv6, TCP / IP, HTTP, SMTP, UDP, HTTPS, RTSP / RTP / RTCP, DNS, SNMP, IGMP / Multicast, NTP, QoS, 802.1X, ICMP, ARP; Line crossing, Face Detection, Motion Detecton, People counting, Intrusion, Loitering, SMD, Tampering; local storage: up to 256Gb; Alarm IN & Outputs, Audio IN & Out; ONVIF-S, G, T, M; Security: HTTPS, Digest authentication, User account and password protection, TLS1.2 only, Stream encryption, AES128/ Telnet closed, IP Filter, PCI-DSS compliance; IP67, IK10, UL, CE, FCC, NDAA Compliant, including 5 yrs warranty to be obtained from the OEM MAKES: Bosch / Honeywell / Axis / Mobotix. or equivalent as approved by Department	1	No	27000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1524	ELEC-7.1.3	Supply, Transportation, Installation, Testing and Commissioning of 5MP IR Speed Dome/PTZ, Optical zoom 30X, optical Zoom 16X, 5.3 ~159mm, P-Iris, 1/2.8" progressive CMOS image sensor, Min. Illumination 0.007 (color), S/N Ratio: 50dB, Electronics Shutter: 1/1 ~ 1/30000sec, Max 30 fps, IR Distance: up to 150M, WDR~120dB/BLC/HLC/3D DNR, Gain Control: 0 ~100%, Alarm 2 IN& 2 OUT; SD card up to 256GB, PAN Range/Speed: 0-360/.1 ~ 180/s deg, Tilt Range/Speed: -10 ~ +90/.1 ~ 90deg/s, 400 preset locations, 12 tours, 6 patterns; Video Compression: H.265 HEVC/H.264/MJPEG, Smart Codec; Triple Stream;30fps; Video analytics: People counting, intrusion, tampering,Loitering, Motion Detection, SMD; 2 way audio stream with full duplex Protocols: IPv4, IPv6, TCP / IP, HTTP, HTTPS, UPnP, RTSP / RTP / RTCP, IGMP / Multicast, SMTP, DHCP, NTP, DNS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS; User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128 / 256, SSH / Telnet closed, PCI-DSS compliance ONVIF: S/G/T; Op. Temp: -40 to 60 Deg; power consumption max. 25W; IP66/IK10/UL/NDAA, with required mounts including 5 yrs warranty Makes: BOSCH /HONEYWELL / MOBOTIX/ AXIS or equivalent as approved by Department	1	No	160400.00
1525	ELEC-7.1.4	Supply, Transportation, Installation, Testing and Commissioning of 64CH Embedded 4K NVR 8SATA expandable each BAY up to 10TB, audio input & Output, Two way communication supported, G7.11 audio format support, 400Gb recording throughput, 16 alarm inputs & 6 Outputs, RS485, RAID, Esata and RS232 to be supported with max. 16 users, Op. temp -10 to 50 deg. C, NDAA compliant, including 5 yrs warranty to be obtained from the OEM., UL, CE, FCC certified. Makes: BOSCH /HONEYWELL / MOBOTIX/ AXIS or equivalent as approved by Department	1	No	250800.00
1526	ELEC-7.1.5	Supply and installation of Surveillance 8 TB Hard Disk Make : WD / Seagate or equivalent as approved by Department	1	No	26400.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1527	ELEC-7.1.6	Supply, Installation, Testing and Commissioning of 24 Port, 4 GIGA fibreslots (SFP), power budget 250W 10/100/1000 Gigabyte PoE switch with GIGA fibre slots (SFP)ports with uplink ports Make : TP Link / D-Link or equivalent as approved by Department	1	No	25960.00
1528	ELEC-7.1.7	Supply, Installation, Testing and Commissioning of 16 Port, 2GIGA fibreslots (SFP), power budget 250W 10/100/1000 Gigabyte PoE switch with GIGA fibre slots (SFP)ports with uplink ports Make : TP Link / D-Link or equivalent as approved by Department	1	No	17900.00
1529	ELEC-7.1.8	Supply & Fixing of 55 inch LED monitor 4K smart commercial display unit with VGA HDMI, USB ports. Panel Type LCD, Aspect Ration 16:9, Resolution 3480 x 2160, Brightness 350 nits, Contrast ratio 4000:1, Response time 8ms, icluding 3 yrs warranty Approved Make : Samsung / LG or equivalent as approved by Department	1	No	86500.00
1530	ELEC-7.1.9	Supply and installation of IP 20, IK 08 42U 600mm Width x 1000mm Deep Floor mounting network rack with all accessories like front and rear doors, fans, castor wheels (2 with break and 2 without break), cable manager, cantilever shelf, horizontal and vertical power distribution unit, monitor shelf, brush at cable entry and hardware packet, etc. Mod cap floor stand : Modular construction of the rack made of 4 vertical , 4 Horizontal and 4 depth alloy extruded multi folded hallow profiles bolted and joined together with links and corner blocks. 3 Pairs of support channels to equate the load evenly and castor provision at bottom side. Painting shade : Combination of RAL 7035 / 7037 fine texture - 60 to 80 microns. or RAL 9005 fine texture - 60 to 80 microns complies with standards : UL 2416, Din 41494, IEC EN 60529, IEC EN 62262, IEC EN 60068-2-11, ISO 9001-2008. Makes : Vallrack (Legrand) / Netrack or equivalent as approved by Department	1	No	67300.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1531	ELEC-7.1.10	Supply & Installation of HDMI Cable cable low voltage grade as per standard specifications having 5 Mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.	1	No	2660.00
1532	ELEC-7.1.11	Supply, Installation, Testing and commissioning of Network Video Management & Monitoring Software (NVMMS) system with distributed architecture to collect, manage and present video from all the cameras and supports emerging technologies in the industry, like 4K resolution, H.265 video compression codec, multi-imager/lens cameras and 360° fisheye cameras. The NVMMS shall have option to support database redundancy and 1+1 and N+M NSM failover features for unforeseen / maintenance scenarios for increased system reliability. NVMMS shall support NSM's from a multiple location licenced for 1250 cameras & Analytics server should also have provision for concurrent Users., licenses should expandable upto 5000+ cameras & 10 user clients without any additional version upgrade. The NVMMS should support network joystick controller, GPU rendering support for H.264 and H.265 decoding , video on demand, Adaptive video throttling, rule engine, operator role management, server based Video Motion Detection (VMD), edge storage backfill support, bookmark with manual comment, bookmark based search, timeline search, Preview search, synchronous playback from all NSMs, monitor wall support, surrounding camera mode, Cyber secured with features such as Digital Signing, General Data Protection Regulation (GDPR) compliance, HTTPS & SSL base, smart web client, secured firewall configuration, password expiry, non-recoverable password; support ANDROID & iOS phones, seamless integration with integrated security platform which provides HSDK&API for further integration with 3rd party systems.	1	No	2833300.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		NVMMs shall support certified Analytics like intrusion / LoiteTrace / Face recognition / ANPR. And also should intergrate with Access control system. HARDWARE: OS IoT 2019; database server 2017 express; Intel Xeon E-2236, 3.4 GHz; 16GB DDR4 memory; 480GB SSDs dual RAID1 OS drive; G200 Video card, 2 USB and 1 VGA ports; Dual 350W hot plug platinum redundant power supply. UL & CE certified. Software License and updation if any upto unlimited duration by the OEM. MAKES: Bosch, Honeywell, Axis, Mobotix. or equivalent as approved by Department			
1533	ELEC-7.1.12	Supply, Installation, Testing and Comissioning of Intel core i7 - 8700 3.2 GHz processor with latest or as per OEM recommended OS, min. 16GB RAM, 500GB 7200RPM SATA 3 drive or Higher, Integrated Intel graphics card for 4 display connectivity.	1	No	158400.00
1534	ELEC-7.1.13	Supply and Installation of 8 port 10 / 100 / 1000 Gigabit PoE switch with GIGA fibre slots (SFP). Makes : TP Link / D link. or equivalent as approved by Department	1	No	12970.00
1535	ELEC-7.1.14	Labour cost for splicing for each node or equivalent as approved by Department	1	No	265.00
1536	ELEC-7.1.15	Supply and Installation of 10/100/1000 SFP modules Make : TP Link / D link or equivalent as approved by Department	1	No	4840.00
1537	ELEC-7.1.16	Supply and Installation of smart Keyboard Joystick	1	No	101220.00
		NOTE: 1. The CCTV surveillance system should got to be executed by the authorised service integrator of OEM. 2. The vendor should submit warranty certificate from OEM and to provide end to end service until Defective Liability Period.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		BOOM BARRIER			
1538	ELEC-7.1.17	Boom Barrier 6Mtr (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 6 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	168300.00
1539	ELEC-7.1.18	Boom Barrier 4Mtr (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 4 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit.Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	156200.00
1540	ELEC-7.1.19	Boom Barrier 3Mtr (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 3 Mtr with 100% duty cycle, Boom rest, Microprocessor controlled control panel, push buttons, 24VDC motor with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc.,This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department	1	No	145200.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1541	ELEC-7.1.20	Boom Barrier 1.5 Mtr (Two wheeler) (IP 54) Supply, Installation, Testing and Commissioning of Electromechanical motorized Automatic Boom Barrier of Boom length 1.5 Mtr with 100% duty cycle, Boom rest, with Microprocessor controlled control panel, push buttons, 24VDC motor, with all accesories required such as Optical Sensor, integration with smart cards, proximity based access control systems and VFD Drive etc. This shall be with safety features like Induction and safety loop, remote operating facility with remote control unit. Make : Godrej / Vigi Guard / Gunnebo / Magnetic / Automatic Systems or equivalent as approved by the intelligence department.	1	No	111100.00
1542	ELEC-7.1.21	Supply, Installation, Testing and Commissioning of Long range Card Readers having 3/6 Meter high SS Pole for Mounting Long Range Vehicle Tag Reader(>10Mtrs) and Smart Card Reader along with Outdoor Enclosure for Smart Card Reader with necessary accessories.a) IP 66 Rated having smart card reader with 14 Inch Read Range for Two Wheeler's and Visitor Cars, b) Long range Vehicle Tag Reader IP 66 Rated having Read range of >10 Meters for reading vehicle tags.	1	No	97900.00
1543	ELEC-7.1.22	Supply, Installation, Testing, Commissioning of UHF Gen 2 Passive Vehicle Tags capable of application on Car windshields(which will be programmed for operation of the boom barriers). Make: Matrix / HID / Honeywell or equivalent as approved by the intelligence department	1	No	390.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1544	ELEC-7.1.23	Traffic Bollard (K-8 / K 10 rated) : Supply, Installation, Testing and Commissioning of ultra-high resistance to impact and weather Bollard unit consisting of Single blocking bollards with hydraulic drive unit installation on concrete plinth & speed control, Shall be reliable in operation even after power failure, weld free bollard cylinder, auto wiping arrangement, low maintenance and can be operated with remote control switch, Control panel with push buttons accessories enclosed in an outdoor cabinet. Make: FAAC/ Gunnebo / TESCON / ATG Access or equivalent as approved by the intelligence department (approved by NABL)	1	No	825000.00
		Note :			
		1. CE Certification of Bollards			
		2. 2000 Hr Salt Spray Certificate by NABL Lab.			
		3. Tested Life of 10 Million Operations			
		4. HPU must be IP 68 Certified from NABL accredited Lab			
		5. Number of Blocks on Bollards - 3 / 4 5 / 6 Nos			
		Under Vehicle Scanning System (UVSS)			
1545	ELEC-7.1.24	Supply, Installation, Testing and Commissioning of Weather proof and outdoor type (IP 68) UVSS. It should be able to capture very high resolution and complete composite under body usage of any vehicle passing over it, without the vehicle being stopped and also it should be able to capture complete image of the vehicle on accidentally stoppage on the UVSS system with same clarity by using a high quality line/ area scan CCD camera, with fish eye lens of high resolution & Loop based sensors, able to handle the vehicle speeds ranging from 5-30 Km/hr, automatically and dynamically adjusting the brightness and contrast of the system to ensure good quality images, irrespective of different light condition, automated number plate reading System (ANPRS) and recording.	1	No	3080000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		There should be 3 or more additional cameras for capturing motion video images etc, It shall also include i7 based computer system with 8GB RAM, HDD 1TB Linux operated, Min 3 PCI slots or as required by the system for operation along with cables. The system shall have 1 KVA ONLINE UPS with backup of 01 hour and network port for connectivity along with all cables and fixing accessories. including all required civil works along with water draining system in case of water egress into the pit as specifications available in department. Make: Kritikal (Model of Zenscan/ NUVOSCAN)/or equivalent as approved by the intelligence department.			
		Multi Zone Door Frame Metal Detection (MDFMDS)			
1546	ELEC-7.1.25	Supply, Installation, Testing and Commissioning of Multi Zone (8 zone) Door frame metal detector ,should detect ferrous, Non Ferrus and Ferrite metals, rechargeable internal battery, traffic counter and capacity 30 person/ minute, etc as per the technical specification available in department. Make : RAPISCAN / or equivalent as approved by the intelligence department.	1	No	247500.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Hand held metal detector (HHMD)			
1547	ELEC-7.1.26	Supply, Installation, Testing and hand held metal detector of High sensitivity, detect large, medium and small and Very small objects, metals of ferros, Non Ferrous and Ferrite, should give a visible audible alarm, Visual indications for On, metal, charge, low battery etc. with inbuilt charger , rechargeable batteries etc., complete as per the specifications available in department. Make : RAPISCAN/ or equivalent as approved by the intelligence department.	1	No	14520.00
		X-Ray Baggage scanner			
1548	ELEC-7.1.27	Supply, Installation, Testing and Commissioning of X-Ray Baggage scanner have inspection tunnel dimension 600 x 400 +_10%, conveyer height 694 mm + 10 mm approximately, 100 Kg or more capacity conveyor, speed of conveyor belt 0.18 & 3 m /s, movement of conveyor bidirectional, suitable to operate 170 - 230 V AC, 50 Hz, video display unit of 19" 2 CD/LED monitor high resolution, low radiation, flecker free, resolution at least 1280 x 1024 mm.	1	No	1936000.00
		Machine should have the feature of warning the operator by stopping of the belt incase of presence of high absorbing material in a baggage, recalling of images, archig of more images, control desk with security provisions, locking provision, online recording facility, images can be recorded in CD R/W and a USB drive, suitable software as per the technical specification available in department. Make : RAPISCAN or equivalent as approved by the intelligence department.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		SECTION - 8			
		SWAGED POLES / OCTOGONAL POLES, GARDEN POSTS AND ACCESSORIES			
	8.1	SWAGED POLES			
1549	ELEC-8.1.1	Fabrication, supply and transportation of all sizes swaged poles up to site confirming to IS 2713 / 1980 specifications. The pole should be painted with primary coat of red oxide and black bituminous paint up to ground level with base plate, including cost of all materials etc., complete.(Rate per K. G)	1	Kg	85.00
	8.2	M S POLES FOR GARDEN POSTS			
1550	ELEC-8.2.1	Fabrication and Supply of M.S. Poles for garden posts with 'B' class 60.25mm outer dia with base plate and suitable pole cap including cost and conveyance of all material including fixing of luminaire and labour charges etc., complete. (Rate per K. G)	1	Kg	75.00
1551	ELEC-8.2.2	Supply of different sizes of M. S. Pipe brackets (Rate per K.G)	1	Kg	75.00
	8.3	OCTOGONAL POLES			
	ELEC-8.3.1	Fabrication, Transportation and supply of hot-dip galvanized Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including chain for anti theft mechanism, supply of suitable boards with bakelite sheet, din channel for MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Vakrangee / Surya			
1552	a	7.50 Mtrs height Pole having dimensions Bottom 130mm, Top 70mm with 3mm thick, base plate 220 x 220 x 12mm and 4 Nos of M20 x 700mm long 'J' bolts along with template or equivalent.	1	No	13230.00
1553	b	9 Mtrs height Pole having dimensions Bottom 155mm, Top 70mm with 3mm thick, base plate 260 x 260 x 16mm and 4 Nos of M24 x 750mm long 'J' bolts along with template or equivalent.	1	No	18630.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1554	c	10 Mtrs height Pole having dimensions Bottom 175mm, Top 70mm with 3mm thick, base plate 275 x 275 x16mm and 4 Nos of M24 x 750mm long 'J' bolts along with template or equivalent.	1	No	21170.00
1555	d	12 Mtrs height Pole having dimensions Bottom 240mm, Top 90mm with 4mm thick, base plate 320 x320 x20mm and 4 Nos of M24 x 850mm long 'J' bolts along with template or equivalent.	1	No	29770.00
	8.4	BRACKETS			
	ELEC-8.4.1	Fabrication, Transportation and supply of ----- standard Bracket made with MS galvanized 48 / 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Vakrangee / Surya			
1556	a	1.0 Mtr Length Single Arm	1	No	1435.00
1557	b	1.0 Mtr length Double Arm	1	No	1780.00
1558	c	1.50 Mtr Length Single Arm	1	No	1900.00
1559	d	1.50 Mtr length Double Arm	1	No	3200.00
	ELEC-8.4.2	Fabrication, Transportation and supply of -----complete with all accessories with MS galvanized 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Surya / Vakrangee			
1560	a	1.0 Mtr sword type or any decorative Single arm bracket with dooms	1	No	4025.00
1561	b	1.0 Mtr sword type or any decorative double arm bracket with dooms.	1	No	4740.00
1562	c	1.5 Mtr sword type or any decorative Single arm bracket with dooms	1	No	4520.00
1563	d	1.5 Mtr sword type or any decorative double arm bracket with dooms.	1	No	5900.00
	ELEC-8.4.3	Fabrication, Transportation and supply of -----bracket with PU paint complete with all accessories with MS galvanized 50mm dia Pipe. Makes: BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Surya / Vakrangee			
1564	a	1.5 Mtr decorative galvanized Single arm	1	No	5330.00
1565	b	1.5 Mtr decorative galvanized double arm	1	No	10055.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	8.5	HIGH MAST POLES			
1566	ELEC-8.5.1	Fabrication, transportation and supply of 12 Mtrs Polygon High Mast with single section of 3mm thick of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 520mm dia 16mm thick with its accessories. Mast shall be in single section for 12 Mtrs . Mast shall be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool , and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 6 luminaires with GLS type aviation twin lamp. Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Vakrangee	1	No	116865.00
1567	ELEC-8.5.2	Fabrication, transportation and supply of 16 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick with GLS type aviation lamp of Bottom 360mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 560mm dia 25mm thick with its accessories. Mast shall be in 2 sections and should be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool, and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 6 Flood lights, with GLS type aviation twin lamp Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Vakrangee	1	No	152145.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate	
1568	ELEC-8.5.3	Fabrication, transportation and supply of 20 Mtrs Polygon High Mast with two sections of Bottom 4mm thick and Top section with 3mm thick of Bottom 410mm and Top 150mm dia with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate, having a base plate of size 570mm dia 25mm thick with its accessories. Mast shall be in 2 sections and should be hot dip galvanized and suitable for wind velocity of 180 KMPH as per IS 875 part 3 including head frame, 2 point suspension system with steel rope 6mm dia (7/19) construction double drum winch / power tool, and necessary cable trailer connections and single speed motor with M 24 x 800 mm foundation bolts of required quantity, suitable for 12 flood lights, with GLS type aviation twin lamp.Makes : BAJAJ / VALMONT / TRANSRAIL / SKIPPER / UTKARSH / LAASMA / Vakrangee	1	No	189630.00	
	8.6	FEEDER PILLER BOX				
	ELEC-8.6.1	Supply and fixing of suitable out door feeder piller box of size made with 14 SWG CRCA sheet with double door arrangement, making powder coating after processing of 7 Tank process, lock and key, hinges, rubber gasket, danger board,suitable angle iron stand for mounting the feeder pillar with cement concrete, including Supply and fixing of Legrand / Schnieder make ----- ----- as out goings, indication lamps, din channel, 6 Sqmm 3 core copper cable for individual light control, connectors, bus bars, shroudings, gland plates and provision for 3 phase energy meter etc., complete for finished item of work and suitable wiring provision for connecting the nature switch with following.				
1569	a	40A 4 Pole Isolator as incomer, Nos 6-32A SP MCBs	6	1	No	25914.00
1570	b	63A, 4 Pole isolator as incomer, Nos 6-32A SP MCBs	6	1	No	26056.00
1571	c	63A, 4 Pole isolator as incomer, Nos 6-32A SP MCBs	9	1	No	27038.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-8.6.2	Supply and fixing of suitable out door feeder pillar box of size made with 14 SWG CRCA sheet with double door arrangement, making powder coating after processing of 7 Tank process, lock and key, hinges, rubber gasket, danger board, suitable angle iron stand for mounting the feeder pillar with cement concrete, including Supply and fixing of Legrand / Schnieder make ----- ----- as out goings, indication lamps, din channel, 6 Sqmm 3 core copper cable for individual light control, connectors, bus bars, shroudings, gland plates and provision for 3 phase energy meter etc., complete for finished item of work and suitable wiring provision for connecting the nature switch with following.			
1572	a	40A-63A, 4 Pole MCB as incomer, 6 Nos 6-32A SP MCBs	1	No	27594.00
1573	b	63A, 4 Pole MCB as incomer, 9 Nos 6-32A SP MCBs	1	No	28434.00
	8.7	ERRECTION OF HIGH MAST POLES			
1574	ELEC-8.7.1	Earth work excavation with a approximate quantity of 4.0 Cum for errection of 12 Mtrs high mast and refilling with a quantity of 0.53 Cum of PCC 1:4:8, 1.50 Cum M 20 grade concrete and (80 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for errection of High Mast and Carraige etc complete including soil testing.	1	No	32460.00
1575	ELEC-8.7.2	Earth work excavation with a approximate quantity of 6.0 Cum for errection of 16 Mtrs high mast and refilling with a quantity of 0.65 Cum of PCC 1:4:8, 2.60 Cum M 20 grade concrete and (110 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for errection of High Mast and Carraige etc complete including soil testing.	1	No	41350.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1576	ELEC-8.7.3	Earth work excavation with a approximate quantity of 7.0 Cum for erection of 20 Mtrs high mast and refilling with a quantity of 0.75 Cum of PCC 1:4:8, 3.60 Cum M 20 grade concrete and (140 Kgs) reinforced steel of 12mm / 10mm / 8mm, Soil bearing capacity of 10 T/Sqm, Anchor plate with cost and conveyance of all above materials including labour charges for erection of High Mast and Carraige etc complete including soil testing.	1	No	52670.00
	8.8	CONICAL POLES			
1577	ELEC-8.8.1	Fabrication,transportation and supply of MS hot dip galvanized 7.5 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 145mm dia and top 75mm dia, base plate of size 240mmx240mmx12mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes: BAJAJ / VALMONT / TRANSRAIL / CANDILIER / K Lite / KESELEC	1	No	14000.00
1578	ELEC-8.8.2	Fabrication,transportation and supply of MS hot dip galvanized 9.0 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 165 - 173mm dia and top 75mm dia, base plate of size 275mmx275mmx16mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes: BAJAJ / VALMONT / TRANSRAIL / CANDILIER / K Lite / KESELEC	1	No	18960.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1579	ELEC-8.8.3	Fabrication, transportation and supply of MS hot dip galvanized 10.0 Mtrs long Conical poles with 3mm thick HT steel plate with a bottom 175-184mm dia and top 75mm dia, base plate of size 275mmx275mmx16mm thick welded to bottom of pole, terminal box with door size of 500mm x 100mm with all accessories connector and fuse base and a fixing arrangements for advertisements holdings, foundation bolts with washers and nuts 4 sets and as per the directions of field engineers during execution for finished item of work. Makes : BAJAJ / VALMONT / TRANSRAIL / CANDILIER / K Lite / KESELEC	1	No	23965.00
	8.9	DECORATIVE DRAGON TYPE BRACKET WITH POLE			
	ELEC-8.9.1	Fabrication, Transportation and supply of hot-dip galvanized Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs height Pole having dimensions Bottom 185 mm,. Top 70mm with 3mm thick, base plate 275 x 275 x 20mm and 4 Nos of M24 x 1000 long 'J' bolts along with templates Including Supply of 1.5M Dragon type decorative ----- ----- Makes: VALMONT / BAJAJ / TRANSRAIL			
1580	a	galvanised Double Arm with PU Painted bracket.	1	No	29260.00
1581	b	galvanised Single Arm with PU Painted bracket.	1	No	25080.00
1582	c	Double arm Galvanised finish bracket.	1	No	25080.00
1583	d	Single arm Galvanised finish bracket.	1	No	22440.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-8.9.2	Fabrication, Transportation and supply of hot-dip ----- Curved Octogonal Pole with BSEN - 10025 grade S 355 JO steel plate for shaft Including Supply of 0.2M long Single arm bracket, IS 2062 for base plate with door opening arrangement, including the supply of suitable boards with bakelite sheet and MCB's as per IS specification suitable to withstand the wind speed of 180 KMPH for 9 Mtrs height Curved Pole having dimensions Bottom 180mm,. Top 85mm with 3mm thick, base plate 400 x 400 x 20mm and 4 Nos of M24 x 750 long 'J' bolts along with templates. Makes: VALMONT / BAJAJ / TRANSRAIL			
1584	a	galvanized	1	No	24530.00
1585	b	galvanized PU Paint finish	1	No	33220.00
	8.10	DECORATIVE MIXED DESIGN (CASTED CONICAL) POLES			
	ELEC-8.10.1	Fabrication, Transportation and supply of hot-dip galvanized ----- Meter Casted Parts Conical decorative Pole with sand blasting with PU paint, IS 2713 Grade steel plate, IS 1161 for pole with door opening arrangement for anti theft mechanism, suitable FRP connector with DIN Channel for MCBs Makes : CANDILIER / VALMONT / BAJAJ / K Lite / KESELEC			
1586	a	3 Mtr Height pole having dimensions bottom 139.7 mm and top 76.1 mm of 3 mm thick, base plate 350 x 350 x 12 mm and 4 Nos of M20 x 600 mm long J bolts along with template	1	No	17000.00
1587	b	4 Mtr Height pole having dimensions bottom 139.7 mm and top 76.1 mm of 3 mm thick, base plate 350 x 350 x 12 mm and 4 Nos of M20 x 600 mm long J bolts along with template	1	No	19500.00
1588	c	5 Mtr Height pole having dimensions bottom 139.7 mm and top 76.1 mm of 3 mm thick, base plate 350 x 350 x 12 mm and 4 Nos of M20 x 600 mm long J bolts along with template	1	No	22000.00
1589	d	6 Mtr Height pole having dimensions bottom 139.7 mm and top 76.1 mm of 3 mm thick, base plate 350 x 350 x 12 mm and 4 Nos of M20 x 600 mm long J bolts along with template	1	No	24000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	8.11	BRACKETS FOR MIXED DESIGN (CASTED CONICAL) POLES			
	ELEC-8.11.1	Fabrication, Transportation and supply of DECORATIVE STREET LIGHT ----- Arm with all accessories with galvanised and PU paint Makes : CANDILIER / VALMONT / BAJAJ / K Lite / KESELEC			
1590	a	1.5 Mtr Dragon type decorative double arm bracket	1	No	4800.00
1591	b	1.5 Mtr Dragon type decorative single arm bracket	1	No	3500.00
1592	c	1.0 Mtr Dragon type decorative double arm bracket	1	No	3800.00
1593	d	1.0 Mtr Dragon type decorative single arm bracket	1	No	3200.00
1594	e	1.0 Mtr Curved designer type decorative double arm sleeve 88.9 mm OD, 3 mm thick and 42 mm OD pipe 3 mm thick with inverted U type bracket	1	No	7700.00
1595	e	1.0 Mtr Curved designer type decorative single arm sleeve 88.9 mm OD, 3 mm thick and 42 mm OD pipe 3 mm thick with inverted U type bracket	1	No	4000.00
	8.12	DECORATIVE SQUARE POLES with Z-type / L-type Bracket			
	ELEC-8.12.1	Fabrication, Transportation and supply of hot-dip galvanized ----- Meter Square shaped decorative Pole of L-type and Z-type shape with sand blasting with PU paint, BSEN 10025 Grade S355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangement for anti theft mechanism, suitable FRP connector with DIN Channel for MCBs suitable to withstand the wind speed of 180 KMPH. The pole includes modular type light fixture IP 65 / 66, including clear glass, with LED luminaire efficacy 120 Lumens / Watt, CCT : 3000 to 6500 K, CRI > 80, PF > 0.9 and with internal surge protection > 5 KV and THD < 10%. Makes : CANDILIER / VALMONT / BAJAJ / K Lite / KESELEC / T-Lite			
1596	a	3 Mtr Height pole having dimensions 100 x 100 mm square pipe of 3 mm thick, base plate 200 x 200 x 12 mm and 4 Nos of M16 x 450 mm long J bolts along with template and 30 W modular type luminaire	1	No	13800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1597	b	4 Mtr Height pole having dimensions 100 x 100 mm square pipe of 3 mm thick, base plate 200 x 200 x 12 mm and 4 Nos of M16 x 450 mm long J bolts along with template and 30 W modular type luminaire	1	No	15600.00
1598	c	5 Mtr Height pole having dimensions 100 x 100 mm square pipe of 3 mm thick, base plate 220 x 220 x 12 mm and 4 Nos of M20 x 600 mm long J bolts along with template and 60 W modular type luminaire	1	No	18900.00
1599	d	6 Mtr Height pole having dimensions 100 x 100 mm square pipe of 3 mm thick, base plate 220 x 220 x 12 mm and 4 Nos of M20 x 600 mm long J bolts along with template and 60 W modular type luminaire	1	No	21600.00
1600	e	7 Mtr Height pole having dimensions 100 x 100 mm square pipe of 3 mm thick, base plate 250 x 250 x 12 mm and 4 Nos of M20 x 700 mm long J bolts along with template and 70 W modular type luminaire	1	No	24900.00
	8.13	THERMO PLASTIC POLE BOXES			
	ELEC- 8.13.1	Supply of following sizes thermo plastic pole boxes IP 65 protection. Make : Hensel / Sintex / Sadhrish / EPP / Star Rising / Suraksha or equivalent			
1601	a	200X150X100	1	No	875.00
1602	b	250X200X120	1	No	1080.00
1603	c	300X150X170	1	No	1260.00
1604	d	300X200X125	1	No	1360.00
1605	e	300X300X170	1	No	1795.00
1606	f	400X300X200	1	No	1940.00
1607	g	300X450X170	1	No	2450.00
1608	h	490X390X250	1	No	2705.00
1609	i	300X600X170	1	No	2910.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	8.14	FOUNDATION AND ERECTION CHARGES OF POLES			
1610	ELEC-8.14.1	Erection charges for 7.50 Mts long Octagonal / Decorative / Conical pole on bridge kerb portion (R.C.C). duly provided 4 Nos 8" Anchor bolts/ M20xsuitable "J" type bolts etc duly drilling holes to RCC slab and with V.C.C. M.15 concrete for base concreting up to a height of 8" with necessary Reinforcement work etc. including cost and conveyance of all material and all labour charges etc. complete as directed by the department officers.	1	No	4935.00
1611	ELEC-8.14.2	Foundation and erection charges with special T&P, for 7.50 Mtrs long Octagonal / Conical pole duly erecting on base plate duly provided 4 Nos foundation bolts with nuts with providing of 0.45Mtrx0.45Mtrsx1.20 Mtr size M20 cc work vibrated concreting mixing with necessary steel (10kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, mulling removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	6930.00
1612	ELEC-8.14.3	Foundation and erection charges with special T&P, for 9.00Mtrs / 10Mtrs long Octagonal / Conical pole duly erecting on base plate duly providing 4 Nos foundation bolts with nuts with providing of 0.60Mtrx0.60Mtrsx1.40 Mtr size M20 cc work vibrated concreting mixing with necessary steel (15kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, mulling removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	9240.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1613	ELEC-8.14.4	Foundation and erection charges with special T&P, for 12Mtrs long Octagonal / Conical pole duly erecting on base plate duly provided 4 Nos foundation bolts with nuts with providing of 0.67Mtrx0.67Mtrsx1.50 Mtr size M20 cc work vibrated concreting mixing with necessary steel (20kgs) reinforcement as directed by the field engineers during execution including centering, decentering, water curing as required, soil excavation, back filling, muffling removal and coil earthing including all labour charges and cost and conveyance of materials etc. complete.	1	No	11550.00
	8.15	G R P POLES			
	ELEC-8.15.1	Supply and transportation of following glass reinforced polymer (GRP) composite type Conical pole with single arm bracket of length 1Mtr and internal junction box including labour charges etc., complete. Makes: Bajaj / Valmont / Kemrock / Sumip / Helipole.			
1614	a	3.00 Mtrs height, Bottom dia 130-143mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	13440.00
1615	b	4.00 Mtrs height, Bottom dia 140-145mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	16800.00
1616	c	6.00 Mtrs height, Bottom dia 150-170mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	21330.00
1617	d	8.00 Mtrs height, Bottom dia 150-193mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	28200.00
1618	e	10.00 Mtrs height, Bottom dia 207-227mm, Top 76-89mm, AV thickness 6mm and to withstand maximum wind velocity 155Km/Hr	1	No	40765.00
	ELEC-8.15.2	Supply and transportation of base bracket suitable for glass reinforced polymer (GRP) composite type pole including labour charges etc., complete. Makes : Bajaj / Kemrock / Sumip.			
1619	a	For 3.00 Mtrs Pole	1	No	2250.00
1620	b	For 4.00 Mtrs Pole	1	No	2250.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1621	c	For 6.00 Mtrs Pole	1	No	2700.00
1622	d	For 8.00 Mtrs Pole	1	No	3155.00
1623	e	For 10.00 Mtrs Pole	1	No	5430.00
	8.16	CONTROL PANEL BOARD			
	ELEC-8.16.1	Fabrication and erection of ----- sheet steel enclosure for power control cubicle panel / boxes etc., including cutting, bending drilling, welding and reveting etc., complete with cleaning with 7 tank process and painting with powder coating including cost and conveyance of all materials and labour charges.			
1624	a	14SWG CRCA (2mm)	1	Sq Mtrs	6494.00
1625	b	16 SWG CRCA(1.6mm)	1	Sq Mtrs	6059.00
1626	c	18SWG CRCA(1.25mm)	1	Sq Mtrs	5413.00
		NOTE : For Panels fabrication as per IEC 61439, the rate should be considered 1.4 times of above price			
	8.17	METERING EQUIPMENT			
	ELEC-8.17.1	Supply and erection of 0-500V ----- on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / LK / SEIMENS.			
1627	a	Digital Volt meter	1	No	2425.00
1628	b	Analog Volt meter	1	No	485.00
	ELEC-8.17.2	Supply and erection of 0-100 / 200 / 400 / 600 / 1000 -----of size 96x96mm on existing panel board including connections etc., complete.MAKES : CONZERVE / ELMEASURE / LK / SEIMENS.			
1629	a	Digital Ammeter	1	No	2425.00
1630	b	Analog Ammeter	1	No	485.00
1631	ELEC-8.17.3	Supply and erection of Digital frequency meter on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / LK / SEIMENS.	1	No	3030.00
1632	ELEC-8.17.4	Supply and erection of Digital power factor meter, 3 phase, 4 wire balanced or unbalanced load 5A, 415V of size 96 x 96mm on existing panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / LK / SEIMENS.	1	No	3030.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-8.17.5	Supply and erection of L.T. 3phase Digital multifunction -----for measuring all the parameters (Voltage, Current, Frequency, Power factor, KW, KVA, KWH, KVA, KVAH, KVAR and THD Events) on existing box panel board including connections etc., complete. MAKES : CONZERVE / ELMEASURE / LK / SEIMENS.			
1633	a	energy meter Class I with LED display	1	No	7880.00
1634	b	energy meter Class I RS 485 with LED display	1	No	9100.00
1635	c	energy meter Class 0.5 RS 485 with LED display	1	No	10670.00
1636	d	energy meter Class I with LCD display	1	No	9100.00
1637	e	energy meter Class I RS 485 with LCD display	1	No	10190.00
1638	f	energy meter Class 0.5 RS 485 with LCD display	1	No	11885.00
1639	g	bidirectional import / export energy meter Class I with LED display	1	No	17405.00
1640	h	bidirectional import / export energy meter Class I RS 485 with LED display	1	No	18530.00
1641	i	bidirectional import / export energy meter Class I with LCD display	1	No	18530.00
1642	j	bidirectional import / export energy meter Class I RS 485 with LCD display	1	No	19650.00
	ELEC-8.17.6	Supply and erection of ----- -----Makes : LK / / SALZAR / HPL / Siemens			
1643	a	Selector switch for Voltmeter / Ammeter on the existing panel including connections etc., complete.	1	No	215.00
1644	b	LED indication lamps on the existing panel board.	1	No	165.00
1645	c	Push buttons on the existing panel board.	1	No	90.00
1646	ELEC-8.17.7	Supply and erection of LT current transformer with bar primary 100/5A to 1000 / 5A ratio in the existing panel including connections etc., complete. MAKE : KAPPA	1	No	530.00
	ELEC-8.17.8	Supply and fixing of----- Electronic energy Meter, 240V AC, 50 HZ as per IS13010 up to 40A range with 200% over load capacity complete with connections etc., complete on the existing board. Makes : CONZERVE / ELMEASURE / MECO / HPL / HAVELLS.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1647	a	Single phase	1	No	1195.00
1648	b	Three phase	1	No	3445.00
	ELEC-8.17.9	Supply and fixing of ----- APFC Relay with connection etc complete. Makes : LK / Siemens / EPCOS / Schneider / Elmeasure			
1649	a	8 Stage	1	No	15790.00
1650	b	12 Stage	1	No	17830.00
1651	c	14 Stage	1	No	21140.00
	ELEC-8.17.10	Supply and fixing of ----- Rating capacitor duty contactor Makes : LK / Siemens / Meher			
1652	a	3.0 KVAR	1	No	1960.00
1653	b	5.0 KVAR	1	No	2050.00
1654	c	8.5 KVAR	1	No	2370.00
1655	d	10.0 KVAR	1	No	2575.00
1656	e	12.5 KVAR	1	No	2750.00
1657	f	15.0 KVAR	1	No	3820.00
1658	g	20.0 KVAR	1	No	4430.00
1659	h	25.0 KVAR	1	No	4970.00
1660	i	50.0 KVAR	1	No	13730.00
	ELEC-8.17.11	Supply and fixing of detuned reactor 7% 3 phase 440V range -----Makes : LK / Siemens / Meher			
1661	a	5.0 KVAR	1	No	9930.00
1662	b	10.0 KVAR	1	No	15660.00
1663	c	12.5 KVAR	1	No	17380.00
1664	d	15.0 KVAR	1	No	19485.00
1665	e	20.0 KVAR	1	No	22730.00
1666	f	25.0 KVAR	1	No	24070.00
1667	g	50.0 KVAR	1	No	38200.00
1668	h	75.0 KVAR	1	No	56920.00
1669	i	100.0 KVAR	1	No	77550.00
	ELEC-8.17.12	Supply of MPP type heavy duty capacitor of operating voltage Makes:LK /Siemens/Schneider/Epcos.			
1670	a	not less than 440V of cylindrical type of 1 KVAR to 2 KVAR	1	KVAR	415.00
1671	b	not less than 480V of cylindrical type more than 2 KVAR	1	KVAR	400.00
1672	c	not less than 440V of box type of 1 KVAR to 4 KVAR	1	KVAR	530.00
1673	d	not less than 480V of box type of 5 KVAR to 50 KVAR	1	KVAR	485.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	8.18	SUB STATION EQUIPMENT / SERVICING			
1674	ELEC-8.18.1	Carryout routine maintenance, servicing and testing of 630A to 1000A L.T.ACB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the ACB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies	1	No	7005.00
1675	ELEC-8.18.2	Carryout routine maintenance and servicing of LT.Cubical pannel board having approximately 15 to 22 Nos of switches cleaning with power brower and servicing the contacts, tightning the connection of incoming and outgoing cables, and clicking the operating machanism for smooth functioning of switches and putting them in smooth working condition.	1	No	3345.00
1676	ELEC-8.18.3	Routine maintenance of transformer in operation covering insulation resistance oil, break down strength. Reconditioning / replacement of silicazel, cleaning of transformer and topping upto oil level if required (extra cost will be paid for oil).	1	No	5730.00
1677	ELEC-8.18.4	Testing of Transformer oil for dielectric breakdown strength.	1	No	824.00
1678	ELEC-8.18.5	Testing of Insulation Resistance H.T. / LT copper / aluminium coils for Transformers.	1	No	415.00
	ELEC-8.18.6	Removing the existing transformer from the plinth / Pole and refixing the standby transformer of following capacity including connections etc., complete-----			
1679	a	Upto 315 KVA	1	No	6494.00
1680	b	500 / 1000 KVA	1	No	9093.00
	ELEC-8.18.7	Replacing old and unserviceable gasket of top cover plate of transformer having following capacity -----			
1681	a	Upto 315 KVA	1	No	1029.00
1682	b	500 / 1000 KVA	1	No	1444.00
	ELEC-8.18.8	Replacing old and unserviceable gasket of bushing for the following Transformer capacity.			
1683	a	Upto 315 KVA H.T.	1	No	420.00
1684	b	Upto 500 / 1000 KVA H.T.	1	No	767.00
1685	c	Upto 315 KVA L.T.	1	No	966.00
1686	d	Upto 500 / 1000 KVA L.T.	1	No	1979.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-8.18.9	Replacement the H.T. / L.T. burntout winding coils of distribution transformer including rewinding, varnishing and vaccuming etc.,duly retaining the removed burnt winding coils by the Contractor / Firm -----			
1687	a	For copper coils	1	Kg	897.00
1688	b	For aluminium coils	1	Kg	589.00
	ELEC-8.18.10	Painting with 2 coats Zinchromate red oxide duly scraping existing paint followed by 2 coats of hammerton grey paint etc., complete.-----			
1689	a	Upto 500 KVA	1	No	3896.00
1690	b	630 / 1000 KVA	1	No	5198.00
	ELEC-8.18.11	Replacing ----- for distribution Transformer by new one.			
1691	a	H.T bushing	1	No	462.00
1692	b	H.T bushing metal parts	1	No	499.00
1693	c	L.T bushing Upto 315 KVA	1	No	221.00
1694	d	L.T bushing for 500 / 1000 KVA	1	No	231.00
1695	e	L.T bushing metal parts 100 KVA	1	No	394.00
1696	f	L.T bushing metal parts 250 / 315 KVA	1	No	651.00
1697	g	L.T bushing metal parts 500 KVA	1	No	1696.00
1698	h	L.T bushing metal parts 1000 KVA	1	No	2599.00
	ELEC-8.18.12	Drying the repaired transformer with appropriate heat / air -----			
1699	a	Upto 315 KVA	1	No	3896.00
1700	b	500 / 1000KVA	1	No	5460.00
	ELEC-8.18.13	Loading and Unloadng of transformer from site to Workshop or vice verse-----			
1701	a	Upto 500 KVA	1	No	5849.00
1702	b	630 / 1000 KVA	1	No	8841.00
	ELEC-8.18.14	Filtration of transformer oil as per ISS specifications filters to die electric strength above 40 KV-----			
1703	a	At site	1	Ltr	14.00
1704	b	At workshop	1	Ltr	8.00
1705	ELEC-8.18.18	Transformer oil tested as per IS-335 - 1972 (per Ltr)	1	Ltr	155.00
		SERVICING OF DBs			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-8.18.1 6	Servicing of DBs duly opening the top cover checking the circuits, tightening the screws, applying tape wherever required and making proper dressing etc complete.			
1706	a	4 Way SPN DB	1	No	56.00
1707	b	8 Way SPN DB	1	No	112.00
1708	c	12 Way SPN DB	1	No	168.00
1709	d	4 Way TPN DB	1	No	168.00
1710	e	8 Way TPN DB	1	No	336.00
1711	f	12 Way TPN DB	1	No	504.00
1712	g	4 Way VTPN DB with MCCBs / MCB Circuits	1	No	284.00
1713	h	8 Way VTPN DB with MCCBs / MCB Circuits	1	No	420.00
1714	i	12 Way VTPN DB with MCCBs / MCB Circuits	1	No	562.00
		SERVICING OF HT VCBs			
1715	ELEC-8.18.1 7	Carryout routine maintenance, servicing and testing of 630A to 3000A HT VCB by cleaning fixed contacts, moving contacts and arcchutes including servicing and putting the VCB in perfect working condition after detting all relay and ON, OFF mechanism etc done with only manufacturing companies / Authorised dealers of respective switch gears	1	No	11461.00
		POWER QUALITY ANALYSIS			
1716	ELEC-8.18.1 8	Carrying out power quality analysis of the existing load at point of supply/ or as directed with the use of necessary equipment (At 10 points) and recording voltage, current, frequency, KW, KVA, KVAR,PF,THDV, THDI, Load imbalance, preparation and submission of detailed analysis report with remedial measure.	1	day	33107.00
		Note 1: Above job is carriedout irrespective of measuremnts at various electrical panels/ load centers (Upto 10 pts) Note 2: For estimating, one day shall be considered number of hours of one normal working day and it should be actual time required for measurement at site.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		THERMOGRAPHY & DEVELOPMENT OF REPORT			
1717	8.18.1 9	Service Charges towards Thermography and development of report for the panel board consisting of 15 - 22 switchgears at site with FLIR make E5 thermal Imaging Camera with CRIP Resolution of 10,800-pixel detector and 2% accuracy including all required jobs	1	Job	12500.00
	8.19	TRANSFORMERS			
	ELEC- 8.19.1	Supply and Transportation of ----- KVA TRANSFORMER with all test reports. The Transformer shall be designed and manufactured as per IS : 1180 OCTC with level - I with initial filling of oil as per IS 335-1993. The basic details of the Transformer are as under. Makes: Kirloskar / PETE / Esennar / Voltamp / Crompton / ABB / Schneider / SSE			
		1. Quantity : 12. Rated KVA : KVA3. Service & Location: Continuous Outdoor Distribution Transformer 4. Mounting : Plinth. 5. Wound : Copper Double wound 6. Type : Core type oil immersed7. Cooling : ONAN8. Temp Rise : 40°C in oil, 45°C by resistance9. Vector Group: Dyn 1110. Primary Connection : Delta11. Nominal Voltage / Current : _____12. Highest system Voltage: 12000V13. Primary Frequency :50 HZ +/- 3%14. Number of Phases : 3 15. Primary wires: 316. Secondary connection : Star17. Secondary Volts / Current : 433V18. Secondary phases : 319. Secondary wires: 4 20. Taps on primary winding for primary voltage variation : +5% to - 10% in steps of 2.5% of 7 position (6 Steps)			
		21. Terminal arrangement. a.HV: HT terminal box as per the site condition. b. LV: Cable box suitable to receive --- -----Sq.mm XLPE cable 22. LV:One separate terminal for earthing. 23. Total Losses at 50% Loading [Watts] [Max] --- as per IS 24. Total Losses at 100% Loading [Watts] [Max]--- as per IS 25.Percentage Impedance at 75 deg. C at ----- as per IS 26. No Load current: Less than 2% of full load current.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<u>27. Standrad Fittings & Accessories.</u> a. Rating and terminal marking plate: One b. Lifting Lugs:Two c. Off-circuit tap switch :One d. Earthing Terminals :Two e. Radiators (Attachable) :Adequate f. Explosion vent with Diaphragm :One g. Conservator with Drain plug:one h. Oil filling hole with cap :One i. Oil level indicator : One j. Dehydrating Silicagel Breather : One k. Terminal Arrangement: HV With Treminal Box l. Terminal Arrangement : LV Cable Box m. Separate Neutral Bushing : One n. Filter valve with blanking plate : One o. Drain cum filter valve with blanking plate : One p. Air release device : One q. Thermometer Pocket : One r. Four :Unidirectional flat rollers s. One :10Cm dial thermometer(Rigid stem type)			
1718	a	160 KVA Copper Wound Transformer	1	No	872000.00
1719	b	200 KVA Copper Wound Transformer	1	No	951810.00
1720	c	250 KVA Copper Wound Transformer	1	No	981105.00
1721	d	315 KVA Copper Wound Transformer	1	No	1308140.00
1722	e	400 KVA Copper Wound Transformer	1	No	1605200.00
1723	f	500 KVA Copper Wound Transformer	1	No	1688320.00
1724	g	630 KVA Copper Wound Transformer	1	No	1878545.00
1725	h	1000 KVA Copper Wound Transformer	1	No	2258720.00
1726	i	1250 KVA Copper Wound Transformer	1	No	2553380.00
1727	j	1600 KVA Copper Wound Transformer	1	No	3646080.00
1728	k	2000 KVA Copper Wound Transformer	1	No	4581600.00
	ELEC-8.19.2	Supply and Transportation of ----- KVA TRANSFORMER with all test reports. The Transformer shall be designed and manufactured as per IS:1180 OCTC with level - I with initial filling of oil as per IS 335-1993. The basic details of the Transformer are as under. Makes: Thota / Power Tech / KPEL / Elmag / Star Gazers / Haritha or equivalent as approved by the Department			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		1. Quantity : 12. Rated KVA : KVA 3. Service & Location: Continuous Outdoor Distribution Transformer 4. Mounting : Plinth. 5. Wound : Copper Double wound 6. Type : Core type oil immersed 7. Cooling : ONAN 8. Temp Rise : 40°C in oil, 45°C by resistance 9. Vector Group: Dyn 11 10. Primary Connection : Delta 11. Nominal Voltage / Current : _____ 12. Highest system Voltage: 12000V 13. Primary Frequency : 50 HZ +/- 3% 14. Number of Phases : 3 15. Primary wires: 316. Secondary connection : Star 17. Secondary Volts / Current : 433V 18. Secondary phases : 3 19. Secondary wires: 4 20. Taps on primary winding for primary voltage variation : +5% to - 10% in steps of 2.5% of 7 position (6 Steps)		
		21. Terminal arrangement. a. HV: HT terminal box as per the site condition. b. LV: Cable box suitable to receive -----Sq.mm XLPE cable 22. LV: One separate terminal for earthing. 23. Total Losses at 50% Loading [Watts] [Max] --- as per IS 24. Total Losses at 100% Loading [Watts] [Max]--- as per IS 25. Percentage Impedance at 75 deg. C at ----- as per IS 26. No Load current: Less than 2% of full load current.		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<u>27. Standrad Fittings & Accessories.</u> a. Rating and terminal marking plate: One b. Lifting Lugs:Two c. Off-circuit tap switch :One d. Earthing Terminals :Two e. Radiators (Attachable) :Adequate f. Explosion vent with Diaphragm :One g. Conservator with Drain plug:one h. Oil filling hole with cap :One i. Oil level indicator : One j. Dehydrating Silicagel Breather : One k. Terminal Arrangement: HV With Treminal Box l. Terminal Arrangement : LV Cable Box m. Separate Neutral Bushing : One n. Filter valve with blanking plate :One o. Drain cum filter valve with blanking plate : One p. Air release device : One q. Thermometer Pocket : One r. Four :Unidirectional flat rollers s. One :10Cm dial thermometer(Rigid stem type)			
1729	a	100 KVA Copper Wound Transformer	1	No	425730.00
1730	b	160 KVA Copper Wound Transformer	1	No	681320.00
1731	c	200 KVA Copper Wound Transformer	1	No	749460.00
1732	d	250 KVA Copper Wound Transformer	1	No	817590.00
1733	e	315 KVA Copper Wound Transformer	1	No	1208040.00
1734	f	500 KVA Copper Wound Transformer	1	No	1450000.00
	ELEC-8.19.3	Supply and Transportation of 3 Phase, 50 Hz, Dry type, Indoor type copper wound Transformer designed and manufactured as per IS 2026-1977 and IS 11171-1985, connected delta on primary side and Star on secondary side with additional neutral brought out on load side, 11000V / (433V / 415V) with HV off load tap changing + 5% to - 5% in steps of 2.5%, temperature rise by the resistance 90°C complete with test reports with the following standard mountings. Makes: Kirloskar / PETE / Esennar / Voltamp / Crompton / ABB / Schneider / SSE			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		1. Rated KVA : KVA (Cast Resin) 2. Service: Indoor 3. Mounting : Floor. 4. Copper wound : Double. 5. Type of cooling : ANAN. 6. Insulation Class : Class F7. 7. Temperature rise by resistance : 90°C 8. Vector Group: Dyn 11			
		9. Primary Connection : Delta 10. Primary Volts : 11000 11. Primary Frequency : 50 12. Primary Phases : 3 13. Primary wires: 3 14. Secondary connection : Star 15. Secondary Volts : 433V / 415V 16. Secondary phases : 3 17. Secondary wires: 4 18. Taps on primary winding for primary voltage variation : +5.0% to - 10.0% in steps of 2.5% through links.			
		19. Terminal arrangement.			
		a. HV: Cable end box b. LV : Cable end box			
		20. No load losses (Watts): As per IS specifications			
		21. Load losses (Watts): As per IS specifications			
		22. Impedance(Z%) : As per IS specifications			
		23. Fittings & Accessories. a. Rating and terminal marking plate b. Earthing terminals c. Lifting Lugs d. Winding temperature Indicator e. Seperate neutral bushing f. Uni directional flat rollers.			
1735	a	250 KVA Copper Wound Cast Resin Transformer	1	No	1369460.00
1736	b	315 KVA Copper Wound Cast Resin Transformer	1	No	1731240.00
1737	c	400 KVA Copper Wound Cast Resin Transformer	1	No	2157620.00
1738	d	500 KVA Copper Wound Cast Resin Transformer	1	No	2389400.00
1739	e	630 KVA Copper Wound Cast Resin Transformer	1	No	2742325.00
1740	f	750 KVA Copper Wound Cast Resin Transformer	1	No	3035300.00
1741	g	1000 KVA Copper Wound Cast Resin Transformer	1	No	3243100.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1742	h	1250 KVA Copper Wound Cast Resin Transformer	1	No	3960690.00
1743	i	1600 KVA Copper Wound Cast Resin Transformer	1	No	4876795.00
1744	j	2000 KVA Copper Wound Cast Resin Transformer	1	No	6005370.00
1745	ELEC-8.19.4	Supply, Installation, Testing and Commissioning of OLTC for transformers with RTCC etc., complete.	1	No	733490.00
		NOTE 1 : All Test reports to be submitted			
		NOTE 2. 2% may be added on the above price towards Installation, Testing and Commissioning			
		NOTE 3 : If level 2 transformer is to be supplied then increase the price by 10%			
		NOTE 4 : If level 3 transformer is to be supplied then increase the price by 20%			
		NOTE 5 : If level 4 transformer is to be supplied then increase the price by 30%			
1746	ELEC-8.19.5	Supply , Fabrication, Transportation and fixing of Box type RS Joist pole made with 2 Nos 175X85 mm (ISMB Modified) or equivalent about 30'-0 length / 9.1 mtrs length poles welded together including excavation of pit, coil earthing, Special T&P, painting of Pole with 1 coat of Red oxide and 2 coats of alluminium paint, CC 1:3:6 upto ground and 1:2:4 for Couping work, 200A AB Switch, HG fuse sets, required angle iron channels, clamps, nuts and bolts, 11KV pin insulators, 2Nos GI pipe earthings as per the IS with brick massonry chamber including labour and transportation charges etc., complete.	1	No	87850.00
1747	ELEC-8.19.6	Supply, Fabrication, Transportation and erection of DP structure made with 2 Nos 175mm x 85mm (ISMB Modified) or equivalent about 30'-0 length / 9.1 mtrs length RS joist pole erection of the same Including excavation of pit in all kinds of soil including breaking stones, concreting with (1:3:6) mixture base plate, coil earthing back filling, 1:2:4 for coupling including red oxide primary painting and two coats of aluminium painting etc., complete as required with following as per CEIG norms.	1	No	153730.00
		a). 400A AB Switch-1No			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		b) HG Fuse sets-1No			
		c). LAS-1set.			
		d) Required Number of 11KV pin and disc insulators.			
		e) Required length of 100X50mm and 75X40 mm ISMC chanell iron including two coats of redoxide and two coats of enamel paint ect for finished item of work.			
		f) 11KV pin insulators and disc insulators.			
		g) AB switch operating pipe with handle and lock and key arrangements.			
		h). "0" SWG or 8.25 mm dia hard drawn bare copper wire including copper binding wire etc., complete as required including connections.			
		i) 40X6mm GI strip for the DP structure earthing.			
		j) 25X6mm copper strip for lightning arrestors earthing.			
		k) 600X600mmX3,15mm thick copperplate earthings as per NEC with brick massonary chambers - 2 Nos			
		l) GI pipe earthing for the Double pole structure with brick massonry chambers as per IS - 2 Nos			
1748	ELEC-8.19.7	Providing independent earthing for Important equipment with 40mm dia 'B' class 2.5m long G.I pipe and 19mm dia 'B' class G.I pipe of 0.3mtr. long connected with reducer providing G.I funnel with mesh enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powder from the bottom of the pipe gig earth connection from electrode through G.I strip of 40 x 6mm x 200mm length with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1	No	5840.00
		NOTE : Whenever providing full length of electrode is not possible due to the obstruction of water tube / rock, the length of electrode may be reduced and additional earthing may be done to meet earth resistance.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1749	ELEC-8.19.8	Providing independent earthing by excavating a pit to a depth of 2.25Mtr in all soils as per size specified in the data for Sophisticated Electronic equipment with 600mm x 600mm x 3.15mm thick copper plate rigidly fixed to 19mm dia 'B' Class G.I Pipe of 2.5Mtr length with funnel as per National Electric Code and earth connection from electrode GI strip of 40mm x 5mm x 200mm length to be bolted with nut bolts to G.I. pipe including 25mm x 3mm copper strip of 6Mtrs length connected from plate to GI strip including filling with 20Kg Salt and 40Kg Charcoal or 40Kg bentonite powder from the bottom of the pipe and providing CC / Brick masonry chamber 450mmX450mmX400mm and covered with R.C.C. Slab including all accessories and labour charges etc complete as per IS specification 732/1982 (Part II).	1	No	16670.00
		NOTE: In location where the full length of electrode is not possible due to meeting a water table /rock. The electrode may be reduced length and two earths may be done to meet earth resistance.			
1750	ELEC-8.19.9	Providing transformer plinth 1.2 x 1.2 x 1.5 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft and at the top and pedestal of above size with brick masonry duly plastered with 20mm thick including watering etc., complete.	1	No	17365.00
1751	ELEC-8.19.10	Providing CTPT plinth 600mm x 600mm x 2.1 mtr in size with necessary excavation in ground at the bottom with 150mm thick 1:2:4 cement concrete raft and at the top and pedestal of above size with brick masonry duly plastered with 20mm thick including watering etc., complete.	1	No	13890.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1752	ELEC-8.19.1 1	Providing independent earthing for Important equipment with 100mm dia Heavy gauge C.I (Cast iron) pipe with Flange 2.5m long enclosed in C.C/ brick massonry chamber of 450m x 450m x 400mm with R.C.C. Slab cover duly providing staggered holes filling with salt and charcoal from the bottom of the pipe gig earth connection from electrode through flange with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	1	No	9550.00
1753	ELEC-8.19.1 2	Supply, Transportation, Installation and Commissioning of 11 KV, 630A, 25 KA Outdoor type Load Break Switch as detailed below with suitable CC foundation and 2 Nos GI pipe earthing with brick massonry chambers etc complete for finished item of work.a) Load break switch: 11KV,630A, 25 KA with fuse trip, earth switch, manually operated spring charged mechanism with 2 no + 2 NC.b) HT HRC fuse upto 63A - 3 nos.c) Bus bar connection.d) Indication lamps.e) Manual trip Push button.Make : Megawin / Pentagon / Venkateshwara / Jyothi.	1	No	146440.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1754	ELEC-8.19.13	Supply, Installation, Testing and commissioning of indoor type floor mounted metal clad VCB panel with 3 Nos VCBs, totally enclosed and fully inter locked horizontal draw out , horizontal isolated type breaker as per IS 13118 Specifications and as amended upto date and additional specifications, having capacities mentioned below, single break, trip free mechanism, motorised operated spring / manually charged and auto/manually closed breaker suitable for use on 11KV, 3 Phase, 50 HZ AC supply with short circuit fault level of 350 / 500 MVA, complete with self contained, fully inter locked rack in and rack out mechanism, air insulated but encapsulated copper bus bars of 630A capacity, breaker featured with mechanical ON/OFF indicator with hand trip device, spring charging motor, 110V DC closing and tripping coil, safety shutter assembly, shunt trip coil and auxiliary switch of 4 NO + 4 NC and equipped with the following switchgears and accessories including connections suitable for XLPE 11 KV cable, cable entry from bottom, end termination with heat shrinkable jointing material etc as required including construction of suitable CC works for VCB's etc complete. Makes:Kirloskar / Schneider / Siemens / ABB	1	No	1537305.00
		INCOMER - 1 No			
		Vacuum circuit breaker electrical drawout type TP 11 KV 630 A not less than 16 KA rated short circuit rating current -1No			
		POTENTIAL TRANSFORMER:1 No. 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses.			
		CURRENT TRANSFORMER: 3 Nos epoxy resin cast CTs of ratio 50 -- 300 A / 5A, 15VA burden and accuracy class 1.0 for metering and class 5P10 for protection			
		METERING			
		1No Digital type Ammeter and selector switch of makes CONZERV/EQVT			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		1 No digital type Voltmeter with 0-15KV range, selector switch for Voltmeter of makes CONZERV/EQVT			
		1No Digital Multifunction meter of makes CONZERV/EQVT			
		Heater ON/OFF switch with space heater and thermostat, single phase switch with socket cubical lamp for panel illumination with door limit switch ,MCB's for AC & DC control.			
		LED indication lamps for breaker on, breaker off, spring charge indication, trip circuit healthy with push button, Auto trip indication meter, Auxiliary contact for service test position (4No + 4 NC) service and test positions and R/Y/B indication lamps.			
		PROTECTION: 1 Nos. Microprocessor based IDMTL 3 over current and 1 earth fault relay with Over current, earth fault and short circuit protection.			
		High speed tripping relay			
		ANNUNCIATION: 8 Window annunciation panel with push buttons and hooters.			
		POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous output suitable for closing / tripping / indication of 3 Nos VCBs with 2.5sqmm FRLS copper cable etc as required.			
		OUTGOINGS - 2 Nos			
		630A VCBs draw out type TP 11 KV 630 A not less than 16 KA rated short circuit rating current.			
		Each breaker shall consist the following.			
		CURRENT TRANSFORMER: Epoxy resin cast CTs of ratio 50 -- 300 A / 5A, 15VA burden and accuracy class 1.0 for metering and class 5P10 for protection - 3 Nos			
		Digital type Ammeter and selector switch - 1 No Makes : CONZERV / EQVT			
		Digital Multifunction meter - 1 No Makes: CONZERV / EQVT			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		PROTECTION : Microprocessor based IDMTL 3 over current and 1 earth fault relay with Over current, earth fault and short circuit protection - 1 No			
		High speed tripping relay			
		Auxiliary relay for bucholz A/T,OTI A/T, WTI A/T			
		Heater ON/OFF switch with space heater and thermostat, single phase switch with socket cubical lamp for panel illumination with door limit switch ,MCB's for AC & DC control.			
		INDICATION LAMPS: LED indication lamps for breaker on, breaker off, spring charge indication, trip circuit healthy with push button, Auto trip indication meter, Auxiliary contact for service test position (4No+ 4 NC) service and test positions and R/Y/B indication lamps.			
		ANNUNCIATION: 8 Window annunciation panel with push buttons and hooters.			
		1 No. rear entry cable box suitable to receive 11 KV, 1 run of 3CX 120 sqmm cable(XLPE) .			
		1 set of misc items like control fuses , control wiring , inter connections, nuts, bolts, bus trunking including all connected accessories etc.			
		1 Set of 11KV, 630A, 350 / 500 MVA aluminium Bus Bar.			
		Note 1: If out going breaker quantity is increased, Rs.4.95 Lakhs per each breaker to be added to the above.			
		Note 2 : If it is a bus coupler, add Rs.3.95 Lakhs			
		Note 3 : If it is a outdoor braker, add 10% extra on above HT Indoor panel.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1755	ELEC-8.19.14	Supply,transpotation,installation,testing and commissioning of HT INDOOR type single panel switchgear with VCB of floor mounted, metal clad 11KV, 630A, not less than 16 KA (350 / 500 MVA) VCB Panel, with 1No VCBs totally enclosed and horizontal drawout type, horizontal isolation type breaker as per IS 13118 as amended upto date and additional specifications having capacities as mentioned below , single break trip free mechanism, motorised/manually charged and auto manually closing breaker suitable for use on 12KV, 3phase, 50HZ AC supply with self contained fully interlocked rackin and rackout mechanism air insulated alluminium Busbars of 630A capacity, Breaker featured with ON/OFF indicator with hand trip device, spring relief coil, shunt trip coil and auxillary switch of 6NO + 6NC and equiped with following switchgears and accessories incomming connections suitable for 3x95Sqmm XLPE 11KV Cable as required etc complete with adaptor box for outgoing termination.Makes: Kirloskar / Schneider / Siemens / Crompton Greaves / ABB	1	No	585640.00
		INCOMING : 11KV, 630A,not less than ----- KA VCB - 1No.			
		POTENTIAL TRANSFORMER : 11000 / 110 Volts PT, Class 1 accuracy, 100 VA burden with HT/LT fuses. Makes: ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH or EQVT - 1 No			
		Digital Voltmeter 0-15KV along with Selector switch and protection fuses/MCB for HT metering upto 15KV on incoming side -1No Makes: CONZERV / ELMEASURE or EQVT			
		Dual core dual ratio Current transformers with 50 -- 300 A / 5 amp, 15VA burden and accuracy class 1 for metering & class 5P10 for protection of makes ECS / SILKANS / PRAGATHI / NARAYAN POWER TECH -3Nos			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		0-300A Digital Type Ammeter with selector switch -1No Makes : CONZERV / ELMEASURE or EQVT			
		Microprocessor based non directional combined 2 over current & one earth fault relay -1No Makes: EASUN REYROLLE or equivalent			
		POWER PACK: Supply, Installation, testing and commissioning of Power pack with 230V input and 110V DC continuous out put suitable for closing / tripping / indication of VCB with 2.5sqmm FRLS copper cable etc as required.			
		Master trip relay-1No Makes: EASUN REYROLLE or equivalent (Makes)			
		Three element transformer fault auxiliary relay - 2 Nos Makes: EASUN REYROLLE or equivalent			
		Breaker control switch-1No Makes: Switron or equivalent			
		Local / Remote switch-1No Makes: Switron or equivalent			
		Indicating lamps-1set Makes: Vaishnov or equivalent Reputed brand			
		Space heater & thermostat -2Nos Makes: Eltek or equivalent			
		MCB's of suitable current rating - 3 Nos			
		Anti pumping relay -1No Makes: Reputed brand with ISI mark			
		Electronic Audio alarm system with hooter-1No Makes : Reputed brand			
		Auxiliary plug & socket of 230VAC/10A -1No Makes: Reputed brand with ISI mark			
		Panel illumination lamp 230V/40W - 1No Makes: Reputed brand with ISI mark			
		Note 3 : If it is a outdoor braker, add 10% extra on above HT Indoor panel.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	8.20	L.T. LINE MATERIALS AND LIGHTENING PROTECTION SYSTEM			
1756	ELEC-8.20.1	Supply and erecting of single piece non linear resistor type (set of 3 Nos) for 3 wires, 11 KV OH line Sub Station with rated voltage of 9 KV (RMS) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, GI bolts, nuts and washers etc., required	1	No	7035.00
1757	ELEC-8.20.2	Supply and erecting of single piece non linear resistor type (set of 3 Nos) for 3 wires, 33 KV OH line Sub Station with rated voltage of 30 KV (RMS) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, GI bolts, nuts and washers etc., required	1	No	33600.00
	ELEC-8.20.3	Supply and erecting porcelain ----- insulator suitable for 11KV line with suitable hardware on existing cross arms.			
1758	a	Disc type	1	No	735.00
1759	b	Pin type	1	No	378.00
1760	c	Post type	1	No	840.00
1761	ELEC-8.20.4	Supply and erecting porcelain pin/shackle type insulator suitable for L. T.	1	No	137.00
1762	ELEC-8.20.5	Supply and erection of approved make 11 KV outdoor type gang operated Air Break switch of 200 A capacity with 3 post pin type insulator per phase, mounted in Horizontal / Vertical position with necessary channels on cross arms with adequate length of 'C' class GI pipe for operating handle provided with Lock & Key at suitable height from ground level with necessary clamps.	1	No	9744.00
1763	ELEC-8.20.6	Supply and erection of approved make 11 KV outdoor type gang operated Air Break switch of 400 A capacity with 3 post pin type insulator per phase, mounted in Horizontal / Vertical position with necessary channels on cross arms with adequate length of 'C' class GI pipe for operating handle provided with Lock & Key at suitable height from ground level with necessary clamps.	1	No	11519.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1764	ELEC-8.20.7	Supply and erection of approved make 11KV, H.G fuse set with insulation complete with Fuse holders, Fuse barrel with metal fittings, fuse element mounted on M.S. channel with working current 15A capacity complete with cost and conveyance of all materials.	1	No	6379.00
1765	ELEC-8.20.8	Supply and erection of approved make 33 KV, H.G fuse set with insulation complete with Fuse holders, Fuse barrel with metal fittings, fuse element mounted on M.S. channel with working current 15A capacity complete with cost and conveyance of all materials.	1	No	6379.00
1766	ELEC-8.20.9	Supply of 7/3.15 AAA C all Alluminium annealed conductor Rabbit. Make : Pawancab or its equivalent	1	Km	43418.00
1767	ELEC-8.20.10	Supply of 7/2.50 AAA C all Alluminium annealed conductor Weasel. Make : Pawancab or its equivalent	1	Km	26576.00
1768	ELEC-8.20.11	Supply of 9.1 Mtr PSCC Pole 280 Kg Working load.	1	No	6195.00
1769	ELEC-8.20.12	Supply of 8.0 Mtr PSCC Pole 140 Kg Working load.	1	No	3360.00
1770	ELEC-8.20.13	Supply of 175 x 85 mm / 150 x 75 mm RS Joist.	1	Kg	116.00
		AB CABLES			
	ELEC-8.20.14	Supply and stringing of LT Single / Three phase 3 / 4 Wire Aerial Bunched stranded alluminium conductor XLPE/HDPE insulated conductor twisted over bare all alluminium alloy messenger wire of 1100 V confirming to IS: 14255/1995. Make : Pawancab / Havells / KEI			
1771	a	2X16+1x25	1	Mtr	163.00
1772	b	3X16+1x25	1	Mtr	210.00
1773	c	2X25+1x25	1	Mtr	231.00
1774	d	3X25+1x25	1	Mtr	291.00
1775	e	3X35+1x25	1	Mtr	394.00
1776	f	3X50+1x35	1	Mtr	546.00
1777	g	3X70+1x50	1	Mtr	730.00
1778	h	3X95+1x70	1	Mtr	1008.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		LIGHTNING PROTECTION			
1779	ELEC-8.20.15	I. STRUCTURAL FOUNDATION EARTHING Supply and installation of 10 mm copper bonded Solid Steel Round Conductor with minimum coating thickness 70µm for Type-B Earthing and should be tested for Tensile strength, Electrical Resistance, salt mist, Bend & Adhesion to meet the requirements of IS/ IEC 62305 and IEC 62561-1&2. Makes : CAPE / OBO	1	Mtr	530.00
1780	ELEC-8.20.16	Installation of Exothermic Welding - Including welding mould and other accessories for welding confirms the requirements of IEEE 837:2014 : T-Joint, X-Joint, L-Joint , Straight joint Makes : CAPE / OBO	1	No	3,080.00
1781	ELEC-8.20.20	Supply and Installation of Corrosion Proof Band to meet the requirements of IS / IEC 62305. Makes : CAPE / OBO	1	No	396.00
1782	ELEC-8.20.18	II STRUCTURAL DOWN CONDUCTOR Supply and installation of 10 mm copper bonded Solid Steel Round Conductor with minimum coating thickness 70µm as integrated down conductor. Material should be tested Tensile strength, Electrical Resistance, salt mist, Bend & Adhesion to meet the requirements of IS/ IEC 62305 and IEC 62561-1&2. Makes : CAPE / OBO	1	Mtr	440.00
1783	ELEC-8.20.19	Supply, installation and Testing of Bonding clamp/Rebar Hook for interconnecting 10mm - 18mm round conductor with reinforcement inside the concrete to meet the requirements of IS/IEC 62305 .(for Ring) Makes : CAPE / OBO	1	No	440.00
1784	ELEC-8.20.20	Supply and installation of stainless steel Straight Connector at every 4 Mtr of integrated down conductor and should be tested for electrical resistivity, mechanical load to meet the requirement for IS/IEC - 62305 and IEC 62561-1&2. Makes : CAPE / OBO	1	No	396.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1785	ELEC-8.20.2 1	Supply and installation of stainless steel Earth stud of dimension 70 x 70 mm integrated inside concrete and should be tested for electrical resistivity, salt spray and humidity test & short circuit to meet the requirements of IS/IEC 62305 and IEC 62561-1&2.5. Makes : CAPE / OBO	1	No	2,200.00
1786	ELEC-8.20.2 2	III. AIR TERMINATION SYSTEM Supply , installation and Testing of 8mm dia Aluminum alloy Solid Round Conductor of material AlMgSi used in air termination system . Cross sectional area of conductor should be 50 mm ² . Test Parameter: a.Lightning impulse current of 100kA for 10/350 μs b.Electrical resistivity - 0.036 μΩm, Tensile strength - 120 to 240 MPa or N/mm ² , Salt spray - No Sign of Corrosion. c.Tested as per IEC 62561-2. Makes : CAPE / OBO	1	Mtr	172.00
1787	ELEC-8.20.2 3	Supply , installation and Testing of UV resistance Nylon/PU Conductor Holder for Parapet wall for holding 8 mm dia Aluminium alloy round Conductor . Makes : CAPE / OBO	1	No	56.00
1788	ELEC-8.20.2 4	Supply and Installation of UV resistance Nylon/PU roof conductor holder for flat roof with concrete block for fixing 8 mm dia Aluminium alloy Solid Round Conductor in the terrace flat surface at every 1 mtr. Makes : CAPE / OBO	1	No	110.00
1789	ELEC-8.20.2 5	Supply , installation and Testing of Stainless steel Cross Connector for 8 mm dia Aluminium alloy round conductor at cross junction. Test Parameter Salt Spray Test (IEC 62561-1) - No sign of Corrosion Makes : CAPE / OBO	1	No	700.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1790	ELEC-8.20.2 6	Supply , installation and Testing of Expansion Piece with connector to compensate the expansion and contraction of Solid Round Al. Conductor during temperature variations.Expansion piece should be consider at every 20 mtr length of straight horizontal air termination and connected at both the end with use of straight connector conductor . Test Parameter: Electrical Resistivity Test-0.036 $\mu\Omega\text{m}$ Salt Spray Test - No Sign of Corrosion Tested as per IEC 62561-1 Makes : CAPE / OBO	1	No	338.00
1791	ELEC-8.20.2 7	Supply of Aluminium Straight conductor connector for interconnecting 8mm Aluminium conductor to meets the requirement of IS/IEC 62305.Tested for Electrical , Mechanical and chemical as per IEC 62561. Makes : CAPE / OBO	1	No	80.00
1792	ELEC-8.20.2 8	Supply and Installation of Bridging cable with suitable connector for interconnect exposed ring with down conductor system to meet the requirement of IS/IEC 62305 .Tested for Electrical ,Mechanical and Chemical as per IEC 62561. Makes : CAPE / OBO	1	No	1,230.00
1793	ELEC-8.20.2 9	Supply , installation and Testing of air termination rod of 2 mtr length of material AlMgSi of diameter ϕ 16/10 mm crimped on both the ends(Tappered Type). The rod shall be mounted with stainless steel clamp and fixing accessories Test Parameter:Mechanical Load Test for individual aluminium alloy rods - 120 to 280 N/mm ² Salt Spray Test-No sign of corrosionTested as per IEC 62561-1&2 Makes : CAPE / OBO	1	No	3,800.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1794	ELEC-8.20.30	Supply , installation and Testing of air termination rod of 3 mtr length of material AlMgSi of diametre $\varnothing$ 16/10 mm crimped on both the ends(Tappered Type). The rod shall be mounted with stainless steel clamp and fixing accessories Test Parameter: Mechanical Load Test for individual aluminium alloy rods - 120 to 280 N/mm ² Salt Spray Test-No sign of corrosion Tested as per IEC 62561-1&2 Makes : CAPE / OBO	1	No	5,540.00
1795	ELEC-8.20.31	Supply and Installation of stainless steel Folding clamp for connecting air terminal on the metal roof .Clamping range 5-20 mm thick sheet to meet the requirements of IS/IEC 62305.Tested for Electrical ,Mechanical and Chemical as per IEC 62561. Makes : CAPE / OBO	1	No	535.00
1796	ELEC-8.20.32	Supply and installation of stainless steel Earth stud of dimension 70 x 70 mm integrated inside concrete and should be tested for electrical resistivity, salt spray and humidity test & short circuit to meet the requirements of IS/IEC 62305 and IEC 62561-1&2.5. (for interconnecting ELPS and structural down conductors) Makes : CAPE / OBO	1	No	2,020.00
1797	ELEC-8.20.33	Supply and installation of connecting point for Earth stud to meet the requirements of IS/IEC 62305 and IEC 62561-1&2 Makes : CAPE / OBO	1	No	295.00
1798	ELEC-8.20.34	IV SURGE PROTECTION DEVICES Supply and installation of IEC 61643-11 tested, VDE approved (UL 1449 4th edition listed) Bus bar mounted Type 1+2 Surge Protection Device of following specification : Nominal voltage - 240 V 50/60Hz, MCOV of 350 V ,Iimp -12.5 kA (10/350 μ s) & I _{max} - 140 kA (8/20 μ sec),Voltage Protection Level, Up < 1.3 kV,Response time < 1 ns,TOV withstand 5sec: 528 V.Makes : CAPE / OBO Warranty : 10 YearsApplication : Main LT Panel panel	1	No	25,550.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1799	ELEC-8.20.3 5	Supply and installation of SPD Tested as per IEC 61643 Part 11:2011 with following specification: specification : Type 2 Nominal voltage- 240 V, MCOV - 300 V , Nominal Discharge Current (L-N/N-PE) - 20 kA (8/20μ sec) Max Discharge current (L-N/N-PE) - 50 kA (8/20μ sec), Impulse Discharge current (L-N) - 50 kA (10/350μ sec) Voltage Protection Level, Up < 1.5 kV, Response time (L-N) : < 25 ns TOV withstand 5 sec (L-N) : 337 V, TOV withstand 200 ms (N-PE) : 442 V, Short Circuit Current Rating (L-N) - 25 kA, Back-up Fuse Rating - 315 A gG Makes : CAPE / OBO Application: 3 Phase distributions Boards	1	No	13,520.00
1800	ELEC-8.20.3 6	Supply and installation of Surge Protection Device Type 2 Redundant SPD Tested as per IEC 61643 Part 11:2011 with following specification:Nominal voltage -240V (Ph -N) 50/60Hz and MCOV - 300VTOV withstand (L-N/N-PE) ≥ 337 V for 5 sec.Nominal Discharge Current (L-N/N-PE) - 20 kA (8/20μ sec)Max Discharge current (L-N/N-PE) - 50 kA (8/20μ sec).Short- Circuit Current rating (Isccr) - 50 kA.Voltage Protection level - 1300VBack up fuse shall be 160 AgG/gL. 3 stage health Status Indication i.e., red/orange/green for the L to N SPD and Remote monitoring facility.Total Response time (L-N/N-PE) < 25 ns Makes : CAPE / OBOApplication : Lift panels UPS and Drives	1	No	11,910.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1801	ELEC-8.20.3 7	Supply and installation of Surge Protection Device Type 2 Redundant SPD Tested as per IEC 61643 Part 11:2011 with following specification: Nominal voltage - 240 V, MCOV - 300 V , Nominal Discharge Current (L-N/N-PE) - 20 kA / 40 kA (8/20 μ sec) Max Discharge current (L-N/N-PE) - 50 kA / 65 kA (8/20 μ sec), Voltage Protection Level, Up < 1.5 kV, Response time (L-N/N-PE) : < 25 ns / < 100 ns TOV withstand 5 sec (L-N) : 337 V, TOV withstand 200 ms (N-PE) : 1200 V, Short Circuit Current Rating - 25 kA, Back-up Fuse Rating - 315 A gG Makes : CAPE / OBO Applications: 1 Phase Sub Distribution Boards	1	No	6,360.00
1802	ELEC-8.20.3 8	Supply and installation of Surge Protection Devices shall be tested as per IEC 61643-21 with MCOV (L-L) 50V DC & MCOV (Pair-Pair) 72V DC. It shall give protection to all 4 lines in the UTP,STP and shall be CAT6 capable. No. of protected pairs shall be 4. Rated load current at 25°C shall be 1A. Total discharge current (8/20 μ s) L-G shall be 10kA. Impulse Discharge current (10/350 μ s) shall be 1kA. Voltage protection level at nominal discharge current for L-L shall be 150V & for L-G shall be 550V. Cut-off frequency shall be 250 MHz. Response time shall be <1 nano sec. Input/Output connection type shall be RJ45 sockets. Degree of protection shall be IP20.SPD design shall fulfill all versions of PoE applications compatible with standards IEEE 802.3af and IEEE 802.3at.Makes : CAPE / OBOApplication : LAN application - CAT 6 with POE	1	No	7,550.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1803	ELEC-8.20.39	Supply and installation of Surge Protection Device shall be tested as per IEC 61643-21 with MCOV 58V DC. Nominal discharge current (8/20μs) for L-L shall be 60A & Total discharge current (8/20μs) for L-G shall be 250A. Voltage protection level at nominal discharge current for L-L shall be 150V & for L-G shall be 550V. Response time shall be <1nano sec. Cut-off frequency shall be 100MHz. Input/Output connection type shall be of RJ45 sockets. Degree of protection shall be IP20. SPD design shall full fill all versions of PoE applications compatible with standards IEEE 802.3af and IEEE 802.3at. Makes : CAPE / OBO Application : IP Camera Protection	1	No	4,670.00
1804	ELEC-8.20.40	Supply and installation of advanced lighting protection with 205 -580mm height and 4.60 - 4.940 kgs, and having Rod length 760mm, weight 1.795 kgs with stainless steel rod, working on the principle of (ESE) Early Streamer Emission technology, having a coverage radius of 79 Mts under level 1 protection and 107 Mtrs radius under level 4 protection when mounted on 5 - 15 mts height of existing lattice tower gig level 1 protection and anticipation emission time of 60 - 72 micro seconds. The ESE should be manufactured according to standard NFC 17-102 : 2011 and CE certified including functional integrity etc Complete. Make : EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND./Equivalent approved make.	1	No	144540.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1805	ELEC-8.20.4 1	Supply and installation of advanced lighting protection with 205 -580mm height and 4.60 - 4.940 kgs, and having Rod length 760mm, weight 1.795 kgs with stainless steel rod, working on the principle of (ESE) Early Streamer Emission technology, having a coverage radius of 79 Mts under level 1 protection and 107 Mtrs radius under level 4 protection when mounted on 5 - 15 mts height of existing lattice tower gig level 1 protection and anticipation emission time of 60 - 72 micro seconds. The ESE should be manufactured according to standard NFC 17-102 : 2011 and CE certified including functional integrity etc Complete. Make : EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND./Equivalent approved make.	1	No	37020.00
1806	ELEC-8.20.4 2	Installation and commissioning of advanced lighting protection systems which includes 1. 50mm dia C class GI mast with base plate of length 5.0 Mtrs with FRP collar (Insulating bush). 2. Laying of CC Bed 3. Installation of Lighting Rod 4. Laying of Down conductor 5. Installation of Counter 6. Installation of Earth Electrodes 7. Interconnection between the Electrodes 8. Specialised supporting guy wire and all fitting accessories. 9. Termination of down conductor to earth bus etc complete	1	Pt	19020.00
1807	ELEC-8.20.4 3	Supply of electro-Mechanical counterMakes: EARTHPLUS (THUNDER GUARD) / NIMBUS / KALRE / FOREND.	1	Pt	20685.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1808	ELEC-8.20.4 4	Providing earth electrode of low carbon steel rod, UL listed of 25 mm dia, 3 Mtr long, coated with copper of 254 microns thickness, CPRI tested for short time current withstand test of 25 kA, coating thickness, environmental test (Salt Mist Test), Bend test, Tensile strength, Yield / tensile ratio, Electrical Resistivity test, complete with clamps and 2 bags of Earthplus ULTRA high grade earthing compound IEC 62561-7 compliant Eco-friendly, Maintenance free, anti corrosive, lead-free, super conductive, mineral based high-grade earthing compound, to enhance soil conductivity. With resistance <0.20 ohms-meter, should be leach proof & sulphur free complete with earth inspection chamber of dimensions : Width : 320 mm x 320 mm, Height : 192 mm, Weight : 30 Kgs, Load bearing capacity : 5000 Kgs including drilling of bore in any kind of soil.			
	9.1	SECTION - 9			
	ELEC-9.1.1	NET WORKING			
	a	Supply of ----- telephone copper cable. Makes : Finolex / / Surabi / Polycab			
1809	b	2 Pair, 0.5mm	100	Mtrs	1213.00
1810	c	5 Pair	100	Mtrs	3381.00
1811	d	10 Pair	1	Mtr	47.00
1812	e	20 Pair	1	Mtr	95.00
1813	f	50 Pair	1	Mtr	231.00
1814	g	100 Pair	1	Mtr	467.00
	ELEC-9.1.2	Supply of ----- Telephone distribution box with back mount frame, krone connector, powder coated metal body with lock and key arrangement.			
1815	a	10 pair	1	No	851.00
1816	b	20 pair	1	No	1292.00
1817	c	50 pair	1	No	2720.00
1818	d	100 pair	1	No	4846.00
1819	e	200 pair	1	No	9319.00
	ELEC-9.1.3	Supply of LAN Cable Makes : D Link/ AMP/Molex/Legrand/Krone/R & M .			
1820	a	CAT 6 UTP cable.	100	Mtrs	3066.00
1821	b	CAT 6 STP cable.	100	Mtrs	4830.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-9.1.4	Supply of LAN Cable Makes : Commscope / Panduit / Corning.			
1822	a	CAT 6 UTP cable.	100	Mtrs	3200.00
1823	b	CAT 6 STP cable.	100	Mtrs	5060.00
	ELEC-9.1.4	Supply of LAN Cable Makes : D Link / AMP / Molex / Legrand / Krone / R & M			
1824	a	CAT 6 A UTP cable.	100	Mtrs	4410.00
1825	b	CAT 6 A STP cable.	100	Mtrs	5460.00
	ELEC-9.1.4	Supply of LAN Cable Makes : Commscope / Panduit / Corning.			
1826	a	CAT 6A UTP cable.	100	Mtrs	4620.00
1827	b	CAT 6A STP cable.	100	Mtrs	5720.00
	ELEC-9.1.5	Supply of Cat 6 RJ-45 information outlets including ----- plate. Makes : D Link / AMP / Molex / Legrand / Krone / R & M.			
1828	a	Duel face plate.	1	No	410.00
1829	b	Single face plate.	1	No	305.00
	ELEC-9.1.5	Supply of Cat 6 RJ-45 information outlets including ----- plate. Makes : Commscope / Panduit / Corning.			
1830	a	Duel face plate.	1	No	429.00
1831	b	Single face plate.	1	No	319.00
	ELEC-9.1.6	Supply of Cat 6 A RJ-45 information outlets including ----- plate. Makes : D Link / AMP / Molex / Legrand / Krone/ R & M			
1832	a	Duel face plate.	1	No	420.00
1833	b	Single face plate.	1	No	315.00
	ELEC-9.1.6	Supply of Cat 6 A RJ-45 information outlets including ----- plate. Makes : Commscope / Panduit / Corning			
1834	a	Duel face plate.	1	No	440.00
1835	b	Single face plate.	1	No	330.00
	ELEC-9.1.7	Supply of ----- 10 / 100 / 1000 Gigabit Unmanageable Ethernet switch. Makes : TP Link / D link / Netfox			
1836	a	24 Port	1	No	9345.00
1837	b	16 Port	1	No	6615.00
1838	c	8 Port	1	No	2289.00
	ELEC-9.1.8	Supply of ----- 10 / 100 / 1000 Gigabit PoE switchwith GIGA fibre slots (SFP). Makes : Digisol / TP Link / D link			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1839	a	24 Port, 4 GIGA fibre slots (SFP), power budget 250 W.	1	No	26250.00
1840	b	16 Port, 2 GIGA fibre slots (SFP), power budget 250 W.	1	No	18795.00
1841	c	8 Port, 2 GIGA fibre slots (SFP), power budget 150 W.	1	No	14070.00
1842	ELEC-9.1.9	Supply of Ceiling Mount WiFi Access Point. Makes : Digisol / TP Link / D link	1	No	10322.00
	ELEC-9.1.10	Supply of ----- length moulded patch cord. Makes : Digisol / TP Link / D link. / Legrand / R & M			
1843	a	7 feet	1	No	205.00
1844	b	3 feet	1	No	184.00
1845	ELEC-9.1.11	Supply of unloaded 24 port patch panel with IO separate Makes : Digisol / TP Link / D link. / Legrand / R & M	1	No	7004.00
		HDMI & VGA CABLES			
1846	ELEC-9.1.12	Supply and erecting VGA cable to be laid in provided conduits and terminating as per specifications having 15mtr cord length with male/female VGA connectors as per requirement complete.	1	No	3465.00
1847	ELEC-9.1.13	Supply and installing HDMI cable low voltage grade as per standard specifications having --- mtr cord length with male and female 19 pin HDMI connectors as per requirement at site.			
1848	a	3 Mtr	1	No	1596.00
1849	b	5 Mtr	1	No	2793.00
1850	c	10 Mtr	1	No	5591.00
1851	d	15 Mtr	1	No	7056.00
1852	e	20 Mtr	1	No	8789.00
	f	25 Mtr	1	No	13046.00
1853	ELEC-9.1.14	Supply and installing Audio Video cable low voltage grade as per standard specifications having 15 mtr cord length with required connectors 3RCA X 3RCA cable complete.	1	No	4573.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1854	ELEC-9.1.15	Supply ,installation, testing and commissioning of DVI to high speed category 2 HDMI convertors supporting full HD 1080p, 2K and 4K vedio up to 30ft lengths, 3D having 24K gold plated 19 pin type A connectors with high flex CL3 -rated jacket. The convertor should be ROHS complaint.Audio Video cable low voltage grade as per standard specifications having 15 mtr cord length with required connectors 3RCA X 3RCA cable complete.	1	No	9986.00
		RACKS - WALL MOUNTED			
	ELEC-9.1.16	Supply and installation of 600 mm width x 500 mm depth UL certified wall mounting net work rack with sheet steel revited metal frame, top and bottom cover with brush cable entry, confirming to following standards IEC 60529, EN 60529 (IP 20), IEC 62262 EN 62622 (IK 08) , DIN 41494, EIA 310, IEC 60927 including all accessories like horizontal PDU, metal cable manager, hardware packet and the cantilever shelf etc., complete. Makes : Vallrack (Legrand) / Netrack.			
1855	a	6U Wall	1	No	7392.00
1856	b	9U wall	1	No	8804.00
1857	c	12U wall	1	No	10217.00
1858	d	15U wall	1	No	11624.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		RACKS - FLOOR STAND			
	ELEC-9.1.17	Supply and installation of IP 20, IK 08 -- ----- 600mm Width x 1000mm Deep Floor mounting network rack with all accessories like front and rear doors, fans, castor wheels (2 with break and 2 without break), cable manager, cantilever shelf, horizontal and vertical power distribution unit, monitor shelf, brush at cable entry and hardware packet, etc. <u>Mod cap floor stand</u> : Modular construction of the rack made of 4 vertical , 4 Horizontal and 4 depth alloy extruded multi folded hallow profiles bolted and joined together with links and corner blocks. 3 Pairs of support channels to equate the load evenly and castor provision at bottom side. <u>Painting shade</u> : Combination of RAL 7035 / 7037 fine texture - 60 to 80 microns. or RAL 9005 fine texture - 60 to 80 microns complies with standards : UL 2416, Din 41494, IEC EN 60529, IEC EN 62262, IEC EN 60068-2-11, ISO 9001-2008. Makes : Vallrack (Legrand) / Netrack.			
1859	a	17U floor	1	No	40163.00
1860	b	24U floor	1	No	49245.00
1861	c	27U floor	1	No	54705.00
1862	d	32U floor	1	No	65730.00
1863	e	36U floor	1	No	73028.00
1864	f	42U floor	1	No	80325.00
	ELEC-9.1.18	Supply of ----- (Indoor / Out door), Single mode armourd, Optic fibre cable rated with UV stabilised sheet with double embedded steel rod, permanent tensile strength minimum 500 N with maximum installation load 1500 N, impact resistance 25 Nm, Operating temperature -30 ° C, + 70 ° C, black polythelene jacket, fire rated for IEC 60332 - 1-2, IEC 60754 - 1, IEC 60754 - 2. Makes : Digisol / TP Link / D link / Legrand			
1865	a	6 Core	1	Mtr	100.00
1866	b	12 Core	1	Mtr	121.00
1867	c	24 Core	1	Mtr	186.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-9.1.19	Supply of ----- Light Interface Unit / fibre distribution unit. (LIU / FDU) loaded with couplers etc complete. Makes : D Link / AMP / Molex / Legrand / Krone.			
1868	a	6 port	1	No	8495.00
1869	b	12 port	1	No	10773.00
1870	c	24 port	1	No	12873.00
1871	ELEC-9.1.20	Supply of Subscriber connector (SC) to SC / LC patch card of 1 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	2279.00
1872	ELEC-9.1.21	Supply of single mode SC / LC to SC / LC patch card of 1 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	2536.00
1873	ELEC-9.1.22	Supply of single mode SC / LC to SC / LC patch card of 2 Mtr length. Makes : D Link / AMP / Molex / Legrand / Krone.	1	No	3171.00
	ELEC-9.1.23	Supply of Pigtails for fibre core connectivity. Makes : D Link / AMP / Molex / Legrand / Krone.			
1874	a	1 Mtr	1	No	315.00
1875	b	2 Mtrs	1	No	368.00
1876	c	3 Mtrs	1	No	473.00
	9.2	RACEWAYS AND JUNCTION BOXES			
	ELEC-9.2.1	Supply of ----- G I Raceways of 2mm thick with top cover and required hard ware etc complete. Makes : Legrand / MK / OBO or equivalent as approved by the department			
1877	a	100mm x 38mm	1	Mtr	758.00
1878	b	150mm x 38mm	1	Mtr	1002.00
1879	c	300mm x 38mm	1	Mtr	1717.00
1880	d	100mm x 25mm	1	Mtr	724.00
1881	e	150mm x 25mm	1	Mtr	927.00
1882	f	300mm x 25mm	1	Mtr	1667.00
	ELEC-9.2.2	Supply of G.I. Junction box of 2mm thick for direct acces to cables at the inter section of Raceways.			
1883	a	172mm x 52mm	1	No	572.00
1884	b	222mm x 52mm	1	No	716.00
1885	c	372mm x 52mm	1	No	1381.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		EPABX SYSTEM			
	9.3	SMALL SYSTEM			
1886	ELEC-9.3.1	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I.O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 32 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Makes: NEC / Alcatel	1	No	130000.00
1887	ELEC-9.3.2	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I.O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Makes: NEC/ Alcatel/ Karel/ Unify / Matrix	1	No	160000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1888	ELEC-9.3.3	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I.O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 48 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Makes : NEC/ Alcatel/ Karel/ Unify	1	No	190000.00
1889	ELEC-9.3.4	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Makes: NEC/ Alcatel/ Karel/ Unify / Matrix	1	No	200000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1890	ELEC-9.3.5	IP Based digital Telephone (EPABX) system -----complied with following specifications: > IP @ Core, PCM/TDM, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Must support Card based GSM > Inbuilt 8 Channel Auto Attendant > Inbuilt Call Details Software with search engine software > 4 Analog Trunks > 1 ISDN PRI Module > 6 Digital Extensions > 64 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 64 Analog Extensions or more Makes: NEC/ Alcatel / Karel / Unify / Matrix	1	No	220000.00
1891	ELEC-9.3.6	Analog Extension Card (with Caller ID) 8 extensions.	1	No	13486.00
1892	ELEC-9.3.7	Analog Extension Card (with Caller ID) 16 extensions.	1	No	26341.00
1893	ELEC-9.3.8	Analog Trunk Card (with Caller ID) 3 trunks.	1	No	9000.00
1894	ELEC-9.3.9	Analog Trunk Card (with Caller ID) 8 trunks.	1	No	17464.00
1895	ELEC-9.3.10	Digital Extension Card for 8 digital extensions:	1	No	13025.00
1896	ELEC-9.3.11	Digital Extension Card for 16 digital extensions:	1	No	27287.00
1897	ELEC-9.3.12	E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1	No	23467.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	9.4	LARGE SYSTEM			
1898	ELEC-9.4.1	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I.O.S) > Must support Voice Mail > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 8 Digital Extensions > 96 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 220 Ports wired or more at extra cost Makes: NEC/ Alcatel/ Karel/ Unify	1	No	400000.00
1899	ELEC-9.4.2	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 8 Digital Extensions > 128 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Expandable to 220 Ports wired or more at extra cost Makes: NEC/ Alcatel/ Karel/ Unify	1	No	480000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1900	ELEC-9.4.3	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Inbuilt Call Details Software with search engine software > 8 Analog Trunks> 1 PRI Trunk module > 8 Digital Extensions > 160 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)> Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 220 Ports wired or more at extra cost Makes: NEC/ Alcatel/ Karel/ Unify	1	No	600000.00
1901	ELEC-9.4.4	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Inbuilt Call Details Software with search engine software > 8 Analog Trunks > 1 PRI Trunk module > 16 Digital Extensions > 224 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires) > Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost Makes: NEC/ Alcatel/ Karel/ Unify	1	No	690000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1902	ELEC-9.4.5	Supply, Installation, Testing and Commissioning of IP Based digital Telephone (EPABX) system--complied with following specifications: > IP @ Core, PCM/TDM switching, Non blocking, > Must Support PRI, E1, Analog Junctions > Must Support PC Console, > Must support Mobile SIP (Android and I O.S) > Must support Voice Mail > Inbuilt Call Details Software with search engine software > 8 Analog Trunks> 1 PRI Trunk module > 16 Digital Extensions > 304 Analog Extensions > 1 Digital Key Phone with minimum 16 Keys (Must work only on 2 wires)> Inbuilt hotstandby for CPU and PSU. > Compatibility to run on DC -48v source. > Expandable to 400 Ports wired or more at extra cost Makes: NEC/ Alcatel/ Karel/ Unify	1	No	950000.00
1903	ELEC-9.4.6	Analog Extension Card (with Caller ID) 16 extensions.	1	No	28961.00
1904	ELEC-9.4.7	Analog Trunk Card (with Caller ID) 8 trunks.	1	No	25341.00
1905	ELEC-9.4.8	Digital Extension Card for 8 digital extensions:	1	No	25341.00
1906	ELEC-9.4.9	Digital Extension Card for 16 digital extensions:	1	No	27760.00
1907	ELEC-9.4.10	E1 Trunk Card or PRI Card 30 ISDN PRI or R2 trunk channels.	1	No	41682.00
1908	ELEC-9.4.11	IP CPU card for redundancy purpose	1	No	54271.00
1909	ELEC-9.4.12	PSU card for redundancy purpose	1	No	35693.00
1910	ELEC-9.4.13	Digital Key Telephone with 2 line display, 10 programmable keys, handsfree dialing.	1	No	13752.00
1911	ELEC-9.4.14	Digital Key Telephone with 2 line display, 16 programmable keys, fully handsfree talk back.	1	No	16045.00
1912	ELEC-9.4.15	IP Gateway card for 8 channels	1	No	25164.00
1913	ELEC-9.4.16	IP Gateway card for 16 channels	1	No	36382.00
1914	ELEC-9.4.17	SIP extensions licenses pack (5 SIP extensions)	1	No	13919.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1915	ELEC-9.4.18	SIP extensions licenses pack (10 SIP extensions)	1	No	27105.00
1916	ELEC-9.4.19	IP phone with POE.	1	No	8150.00
		SECTION - 10			
	10.1	MISSILLANEOUS ITEMS			
1917	ELEC-10.1.1	TW Seperators / Gutties	100	No	256.00
1918	ELEC-10.1.2	Rawl Plugs	100	No	45.00
1919	ELEC-10.1.3	PVC Grips	100	No	44.00
1920	ELEC-10.1.4	U Nails	100	No	44.00
1921	ELEC-10.1.5	Alluminium Link Clips	144	No	44.00
1922	ELEC-10.1.6	50 mm G.I.Nut and Bolts.	1	Set	22.00
1923	ELEC-10.1.7	63 to 100 mm G.I.Nut and Bolts.	1	Set	34.00
1924	ELEC-10.1.8	50 mm 0 Gauge Nails	1	Doz	61.00
1925	ELEC-10.1.9	63 to 100 mm 0 Gauge Nails	1	Doz	102.00
1926	ELEC-10.1.10	Hard Coke	1	Kg	27.00
1927	ELEC-10.1.11	Salt	1	Kg	22.00
1928	ELEC-10.1.12	PVC Cleats 2 Way	100	No	455.00
1929	ELEC-10.1.13	PVC Cleats 4 Way	100	No	609.00
1930	ELEC-10.1.14	Binding Wire	1	Kg	85.00
1931	ELEC-10.1.15	PVC / Cotton Insulation tape Role (10 Mtrs)	1	No	26.00
1932	ELEC-10.1.16	C.I.Knob	1	No	34.00
1933	ELEC-10.1.17	Stay tight set (Jum bracket 300 mm)	1	Pair	416.00
1934	ELEC-10.1.18	Stay clamp with bolts and Nuts)	1	Set	274.00
1935	ELEC-10.1.19	L.T.Guy insulator	1	No	106.00
1936	ELEC-10.1.20	12 / 15 MS plain rod fan hook	1	No	44.00
1937	ELEC-10.1.21	19 / 20 mm Steel tube fan down rod	1	Mtr	116.00
1938	ELEC-10.1.22	Consealed box PVC / MS with hook for fan	1	No	138.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1939	ELEC-10.1.23	Supply and fixing of Anchor fastner with fan hook / Providing MS Fan hook with grouting and cement plastering.	1	No	112.00
1940	ELEC-10.1.24	Coil Earthing	1	No	104.00
1941	ELEC-10.1.25	Cable route Indicators of size 152mm round / 102mm x 102mm / 152mm x 152mm	1	No	124.00
1942	ELEC-10.1.26	40 mm x 40 mm x 6 mm angle iron with 1 bolt.	1	Set	348.00
1943	ELEC-10.1.27	Mild Steel Items	1	Kg	85.00
1944	ELEC-10.1.28	Acrylic Cover of size 4" x 7" for night lamps.	1	No	27.00
1945	ELEC-10.1.29	TW / PVC Round Blocks	1	No	9.00
1946	ELEC-10.1.30	G.I.Funnel with Mesh 1/2" x 4"	1	No	113.00
1947	ELEC-10.1.31	Asbestos Sheet	1	Sqft	34.00
1948	ELEC-10.1.32	First Aid box 18" x 12" x 8"	1	No	1512.00
1949	ELEC-10.1.33	11 KV Hand gloves	1	Pair	1000.00
1950	ELEC-10.1.34	33 KV Hand gloves	1	Pair	1300.00
1951	ELEC-10.1.35	Supply of fibre discharge rod including connection of copper lead	1	No	4000.00
	10.2	LEGEND PLATES			
1952	ELEC-10.2.1	Danger Notice Plates of size -----, shall comply with IS:2551-1982.			
1953	a	250x200mm,	1	No	286.00
1954	b	200x150mm,	1	No	255.00
1955	c	150x100mm,	1	No	127.00
1956	ELEC-10.2.2	Bus bar chamber 100mm x 40mm	1	No	61.00
1957	ELEC-10.2.3	Cable Alley 100mm x 40mm	1	No	61.00
1958	ELEC-10.2.4	Earth 40mm x 20mm	1	No	61.00
1959	ELEC-10.2.5	Auto / Manual	1	No	61.00
1960	ELEC-10.2.6	Semi oval type alluminium anodized legend plates ON / OFF / Forward / Reverse / Start / Stop / UP / DOWN / R Phase / Y Phase / B Phase / Trip / Open / Close / Left / Right / Motor on / Motor off / Accept / Retract / Reset / Emergency / Running / Pump off / Emergency Stop / Emergnecy on / Slow.	1	No	30.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1961	ELEC-10.2.7	Shock instruction chart in English / Hindi / Telugu duly framed with front glass.	1	No	576.00
	ELEC-10.2.8	Supply of 1.0 Sqmm FRLS / HFFR PVC insulated 1100V grade as per IS:694/1990 specification for Copper cable.			
1962	a	Makes : Finolex / RR kabel / Havells / APAR EBXL / KEI / LK / V-Guard.	100	Mtr	1343.00
1963	b	Makes : Polycab / HPL / RPG / Kundancab / Nakoda / Anchor / GM / Million / Gold Medal / Power Flex / Fine Cab / Sun Cab / Fortune Artr / Bonton / Gloster / Gemini / Uniflex / Sudhakar / Nandicab.	100	Mtr	1182.00
	c	Makes : Benlo / Khanthi / Vimal / Stanjo / Airson / Rajnigandha / Orbit	100	Mtr	1023.00
		COPPER / ALLUMINIUM / G.I. ITEMS (PER KG)			
1964	ELEC-10.3.1	Copper Plate / Strip / SWG wire No.8 / 10 / 14	1	Kg	1263.00
1965	ELEC-10.3.2	Copper winding wire	1	Kg	1455.00
1966	ELEC-10.3.3	Copper winding wire with PVC Insulated of fine quality	1	Kg	1498.00
1967	ELEC-10.3.4	Alluminum Bus bars / Strips / Accessories	1	Kg	492.00
1968	ELEC-10.3.5	Alluminum winding wire	1	Kg	642.00
1969	ELEC-10.3.6	G.I. Strip / Plate / Wire	1	Kg	119.00
	10.4	DMC/ SMC TYPE SUPPORTS FOR THE BUSBARS			
1970	ELEC-10.4.1	Supply of SMC type supports for the bus bars-----			
1971	a	50 x 70 x 14 mm	1	No	37.00
1972	b	60 x 70 x 14 mm	1	No	43.00
1973	c	70 x 70 x 14 mm	1	No	79.00
1974	d	300 x 50 x 10 mm	1	No	146.00
1975	e	350 x 52 x 10 mm	1	No	194.00
1976	f	420 x 60 x 12 mm	1	No	279.00
1977	ELEC-10.4.2	DMC Earth Flat Supports 20 x3 mm / 20x 6mm / 25 x 6mm / 25 x 3mm / 32 x 3 mm / 32 x 6mm / 40 x 3 mm / 40 x 6mm	1	No	61.00
1978	ELEC-10.4.3	Heat shrinkable sleeves for the Bus bars up to 70 Sqmm	1	Mtr	19.00
1979	ELEC-10.4.4	Heat shrinkable sleeves for the Bus bars above 70 Sqmm	1	Mtr	30.00
1980	ELEC-10.4.5	3 to 6.2 Volt series bulb LEDs/Normal bulbs	1000	Nos	1213.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
1981	ELEC-10.4.6	3 to 6.2 Volt series bulb with navar patta LEDs / normal bulbs.	1000	Nos	1735.00
1982	ELEC-10.4.7	Supply of Rotating machine	1	No	1601.00
1983	ELEC-10.4.8	Supply of 6mm thick MS Chekered plate.	1	Kg	97.00
1984	ELEC-10.4.9	Supply of fixing of 6mm thick Alluminium Chekered plate.	1	Kg	367.00
1985	ELEC-10.4.10	Cement	1	Kg	9.00
1986	ELEC-10.4.11	Cost of Sand	1	Cum	1274.00
1987	ELEC-10.4.12	Cost of Bricks	1000	Nos	9702.00
1988	ELEC-10.4.13	Hylam Sheet	1	Sq.in	1.00
1989	ELEC-10.4.14	80mm Nominal Bore C.I.Earth Pipe of 3 Mtrs Length	1	No	4123.00
1990	ELEC-10.4.15	Earth work excacvation including all soils for trench	1	Cum	318.00
1991	ELEC-10.4.16	Earth work excacvation for all soils for Pole Pit for 3 to 6 Mtrs Pole	1	No	1019.00
1992	ELEC-10.4.17	Earth work excacvation for all soils for Pole Pit for 7 to 11 Mtrs Pole	1	No	1528.00
1993	ELEC-10.4.18	Drilling of 16 Nos through holes of 12mm dia to G.I pipe	1	No	7.00
1994	ELEC-10.4.19	G.I Nuts, Bolts and Washers each set	1	Set	15.00
1995	ELEC-10.4.20	18" dia 2" thick hume pipe ring	1	No	318.00
1996	ELEC-10.4.21	18" dia 3" hume pipe ring	1	No	382.00
1997	ELEC-10.4.22	2" thick CC cover for hume pipe ring with handle.	1	No	167.00
	ELEC-10.4.23	Supply of Saddle / Clamps suitable for fixing -----			
1998	a	4 to 10 Sqmm 2 Core Cable.	100	Nos	307.00
1999	b	4 & 6 Sqmm 4 Core Cable.	100	Nos	307.00
2000	c	10 & 16 Sqmm 4 Core Cable.	100	Nos	400.00
2001	d	25 & 35 Sqmm 3.5 Core Cable.	100	Nos	468.00
2002	e	50 Sqmm 3.5 Core Cable.	100	Nos	668.00
2003	f	70 & 95 Sqmm 3.5 Core Cable.	100	Nos	735.00
2004	g	120 to 185 Sqmm 3.5 Core Cable.	100	Nos	934.00
2005	h	240 & 300 Sqmm 3.5 Core Cable.	100	Nos	1134.00
2006	i	400 Sqmm 3.5 Core Cable.	100	Nos	1469.00
	ELEC-10.4.24	Supply and fixing of ----- dia nominal bore Medium Class (B) GI Pipe			
2007	a	15 mm	1	Mtr	140.00
2008	b	20 mm	1	Mtr	180.00
2009	c	25 mm	1	Mtr	270.00
2010	d	32 mm	1	Mtr	340.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2011	e	40 mm	1	Mtr	390.00
2012	f	50 mm	1	Mtr	560.00
2013	g	65 mm	1	Mtr	710.00
2014	h	80 mm	1	Mtr	930.00
2015	i	100 mm	1	Mtr	1340.00
	ELEC-10.4.25	Supply and fixing of ----- dia nominal bore Medium Class (C) GI Pipe			
2016	a	15 mm	1	Mtr	165.00
2017	b	20 mm	1	Mtr	215.00
2018	c	25 mm	1	Mtr	330.00
2019	d	32 mm	1	Mtr	420.00
2020	e	40 mm	1	Mtr	490.00
2021	f	50 mm	1	Mtr	690.00
2022	g	65 mm	1	Mtr	880.00
2023	h	80 mm	1	Mtr	1100.00
2024	i	100 mm	1	Mtr	1600.00
	ELEC-10.4.26	Supply and fixing of PVC synthetic elastomer electrically insulated mat conforming to IS: 15652-2006 with-----			
2025	a	Class A insulation having 2mm thickness upto 3.3KV	1	Sq Mtr	4838.00
2026	b	Class B insulation having 2.5mm thickness upto 11KV	1	Sq Mtr	4967.00
2027	c	Class C insulation having 3mm thickness upto 33KV	1	Sq Mtr	5094.00
2028	ELEC-10.4.27	Supply of round bottom G.I sheet bucket of 9 Ltrs. Capacity as per IS:2546 made out of 24 gauge GI sheet with extra handle at bottom duly painted inside and red out side with printed with FIRE Mark for stand and hook and filled with sand and arranged to existing stand or hook.	1	No	344.00
2029	ELEC-10.4.28	Providing floor mounting stand for keeping 4No of fire bucket 1500mm length, 900mm height made out of 40x40x6mm angle iron welded with 4 hooks and duly painted with one coat of red lead and two coats of enamel paint.	1	No	1402.00
2030	ELEC-10.4.29	Supply and erection of conventional spike type air termination suitable to carry lightning stroke, made up of hevy grade 40 mm dia copper pipe of standard length of 5 Nos copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected in provided foundation in an approved manner	1	No	6112.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		SECTION - 11			
	11.1	WIRELESS FIRE ALARAM SYSTEM			
2031	ELEC-11.1.1	Supply and fixing of Wireless Repeater.The wireless repeater extends the communication range of detection by relaying data between receiver and remote wireless transmitter Including transportation, all taxes and all labour charges etc complete. Makes : Cease Fire / Visonic / Honeywell / Seaara	1	No	11157.00
2032	ELEC-11.1.2	Supply and fixing of Wireless Siren Strobe external wireless siren - a fully supervised power code outdoor (IP55) wireless Siren and strobe light. Designed for external installation. Wire - Free connection between control panel and siren. Convenient rapid no-mess installation. Separate fire alarm signals, 98db Piezo siren and high power strobe light. Weather resistant, IP55, 2-way communication for local and remote diagnostics. Plug-in power supply, NIMH rechargeable back-up power battery, transmits status, tamper, low- battery, supervisory and AC loss messages to the control panel, Tri- State tamper switch identifies screw manipulation removal of cover or playing from the wall Including transportation, all taxes and all labour charges etc complete. Makes : Cease Fire / Visonic / Honeywell /Seaara	1	No	15673.00
2033	ELEC-11.1.3	Supply and fixing of wireless Fully Supervised Smoke Detector, Photoelectric detection technology for superior detection sensitivity , sound and transmitted for smoke, tamper and low battery, works on power code protocol, easy programming and enrolling to the control panel, long life 9 volt alkaline or lithium battery Including transportation, all taxes and all labour charges etc complete.Makes : Cease Fire / Visonic / Honeywell / Seaara	1	No	7704.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	11.2	ADDRESSABLE - FIRE ALARM SYSTEM			
	ELEC-11.2.1	Supply, Installation, testing and commissioning of EN54-2 Listed and UL approved based analog addressable ----- fire control panel expandable by minimum 2 additional loops with minimum 640 character LCD display. Each loop of panel shall have maximum capacity 250 analogue addressable devices, and shall have 20% of spare capacity, 240 volts A C Power supply, automatic battery charger, 24V SLA batteries suitable for operating the entire system including talk back units and the hooters/strobes for a minimum of 4 hours in battery condition the panel shall have suitable power amplifiers for hooter / strobes the panel shall be capable being integrated with the BMS system and shall include cost of supply, installation of any additional modules or interfaces required for the same. Makes: Siemens / Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar			
2034	a	10 loop micro processor	1	No	733194.00
2035	b	8 loop micro processor	1	No	531300.00
2036	c	6 loop micro processor	1	No	491453.00
2037	d	4 loop micro processor	1	No	332063.00
2038	e	2 loop micro processor	1	No	278933.00
2039	f	1 loop micro processor	1	No	239085.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-11.2.2	Supply, Installation, testing and commissioning of EN54-2 Listed and LPCB approved----- -- based analog addressable fire control panel expandable by minimum 2 additional loops with minimum 80 character LCD display 4 access levels 1000 events, historical logging, flash E-PROM, 240 volts A C Power supply, automatic battery charger, 24V SLA batteries suitable for operating the entire system including tack back units and the hooters/strobes for a minimum of 4 hours in battery condition the panel shall have suitable power amplifiers for hooter / strobes the panel shall be capable beeing integrated with the BMS system and shall include cost of supply, installation of any additional modules or interfaces required for the same. The panel shall be completed as per the specification and as required for fixing of above Micro processor based Fire Alarm control panel with zonal indications and battery back up as per detailed specifications.Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper Appolo / Kartar			
2040	a	10 loop micro processor	1	No	652740.00
2041	b	8 loop micro processor	1	No	461725.00
2042	c	6 loop micro processor	1	No	416185.00
2043	d	4 loop micro processor	1	No	282095.00
2044	e	2 loop micro processor	1	No	236555.00
2045	f	1 loop micro processor	1	No	215050.00
2046	ELEC-11.2.3	Supply, Installation, testing and commissioning of intellegent analogue addressable Repeater panel including the cost of mounting accessories complete as per specification as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	134090.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2047	ELEC-11.2.4	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	4764.00
2048	ELEC-11.2.5	Supply and installation of addressable analogue manual call point with resettable flexible element to initiate alarm including the cost of mounting accessories etc. complete. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	4571.00
2049	ELEC-11.2.6	Supply and installation of intelligent analogue addressable photo electric smoke detector including cost of base plate etc., complete as per specification with required fittings and accessories. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3699.00
2050	ELEC-11.2.7	Supply and installation of UL approved intelligent analogue addressable rate of rise cum fixed temperature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/Cooper / Appolo / Kartar	1	No	3464.00
2051	ELEC-11.2.8	Supply and installation of UL approved intelligent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch / Cooper / Appolo / Kartar	1	No	3659.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2052	ELEC-11.2.9	Supply and Installation of UL approved intellegent analogue addressable Control Modules including the cost of mounting accessories complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	4047.00
2053	ELEC-11.2.10	Supply and Installation of UL approved intellegent analogue addressable monitor modules including the cost of mounting accessories complete as per specifications and as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	4047.00
2054	ELEC-11.2.11	Supply and Installation of UL approved intellegent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete as required. Makes: Notifier / Edwards / Honeywell / Morley IAS / Bosch/cooper / Appolo / Kartar	1	No	3894.00
2055	ELEC-11.2.12	Supply, Installation, testing and commissioning of UL approved intellegent analogue addressable Repeater panel including the cost of mounting accessories complete as per specification as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	91091.00
2056	ELEC-11.2.13	Supply and fixing of addressable wall mounting strobes cum hooters including the cost of mounting accessories complete as per specifications and as required including testing and commissioning. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	4099.00
2057	ELEC-11.2.14	Supply and installation of addressable analogue manual call point with resetable flexible element to initiate alaram including the cost of mounting accessories etc. complete. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	4406.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2058	ELEC-11.2.1 5	Supply and instllation of UL approved intellegent analogue addressable photo electric smoke detector including cost of base plate etc., complete as per specification with required fittings and accessories. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell / cooper / Appolo / Kartar	1	No	3484.00
2059	ELEC-11.2.1 6	Supply and installation of UL approved intellegent analogue addressable rate of rise cum fixed temparature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell / Cooper / Appolo / Kartar	1	No	3586.00
2060	ELEC-11.2.1 7	Supply and installation of UL approved intellegent analogue addressable multi criterion detectors below false ceiling/on ceiling including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell / Cooper / Appolo / Kartar	1	No	3802.00
2061	ELEC-11.2.1 8	Supply and Installation of UL approved intellegent analogue addressable Control Modules including the cost of mounting accessories complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3821.00
2062	ELEC-11.2.1 9	Supply and Installation of UL approved intellegent analogue addressable monitor modules including the cost of mounting accessories complete as per specifications and as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/cooper / Appolo / Kartar	1	No	3607.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2063	ELEC-11.2.2.0	Supply and Installation of UL approved intellegent analogue addressable fault isolator modules including the cost of mounting accessories complete as per specifications and complete as required. Makes: Siemens / Morley IAS / Bosch / Ravel / Honeywell/Cooper / Appolo / Kartar	1	No	3484.00
	11.3	CONVENTIONAL - FIRE ALARM SYSTEM (Approved by LPCB / UL Listed)			
	ELEC-11.3.1	Supply, Installation, testing and commissioning of conventional Micro processor based Fire Alarm panel with - ----- 12V SMF batteries etc., complete with all standard accessories. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance			
2064	a	2 zone	1	No	17710.00
2065	b	4 zone	1	No	18469.00
2066	c	6 zone	1	No	18722.00
2067	d	8 zone	1	No	19102.00
2068	e	10 zone	1	No	24984.00
2069	f	12 zone	1	No	27830.00
2070	g	14 zone	1	No	30360.00
2071	ELEC-11.3.2	Supply and installation of Repeater panel including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	15180.00
2072	ELEC-11.3.3	Supply and installation of duel tone electronic hooter of 85dB including the cost of mounting accessories complete as per specifications and as required.Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	886.00
2073	ELEC-11.3.4	Supply and installation of dust and vermin proof manual call point to initiate audio visual alarm including the cost of mounting accessories complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	734.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2074	ELEC-11.3.5	Supply and installation of response indicators for above false ceiling detectors. Makes: System Censor / Ravel / Vertex / Seaara	1	No	165.00
2075	ELEC-11.3.6	Supply and installation of plug - in type multi criterion detectors including the cost of base plate. 75mm dia M.S. outlet box for fixing of the detector base. Mounting accessories etc., complete as per specifications as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1898.00
2076	ELEC-11.3.7	Supply and installation of plug - in type photo electric smoke detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base. Mounting accessories etc complete and as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1645.00
2077	ELEC-11.3.8	Supply and installation of plug - in type rate of rise cum fixed temperature heat detectors including the cost of base plate. 75mm dia MS outlet box for fixing of the detector base, mounting accessories etc., complete as per specifications and as required. Makes: System Censor / Ravel / Vertex / Seaara / Appolo / Kartar / Reliance	1	No	1518.00
		BEAM DETECTORS			
2078	ELEC-11.3.9	Supply, Installation, Testing and Commissioning of 4 wire conventionally single ended reflected type smoke detector with 8" receiver. The range of smoke detection is maximum 164 ft			41745.00
2079	ELEC-11.3.10	Supply, Installation, Testing and Commissioning of 4 wire conventionally single ended reflected smoke detector with 8" receiver. The range of smoke detection is maximum 325 ft			69575.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	11.4	POWDER BASED FIRE EXTINGUISHERS			
2080	ELEC-11.4.1	Supply and fixing of ABC Powder type fire extinguisher of 6 Kgs. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure gas cartridge, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683 (For car parking)	1	No	4900.00
		Makes: FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE			
2081	ELEC-11.4.2	Supply and fixing of Co2 4.5 Kg capacity type extinguisher with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683. For electrical room	1	No	4255.00
		Makes: FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE			
2082	ELEC-11.4.3	Supply and fixing of Co2 2 Kg capacity type extinguisher with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure gas cartridge, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683. Inside Lift Machine room	1	No	2990.00
		Makes: FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE			
2083	ELEC-11.4.4	Supply and fixing of Ceiling mounted type clean agent automatic fire extinguisher of capacity 05 kgs fitted with an automatic sprinkler valve & that shall be calibrated to discharge at an ambient temperature of 68°C. Extinguisher shall be manufactured strictly as per IS standards. Quoted rate shall include necessary supports suitable for ceiling mounting	1	No	5750.00
		Makes: FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2084	ELEC-11.4.5	Supply and fixing of Water Mist type fire extinguisher 9 liters. Capacity, with initial filling in brand new cylinder with powder coated finish, fitted with Gun metal union, high pressure gas cartridge, discharge hose, wall mounting bracket / stand etc. complete, confirming to IS:15683. (Provided near Stair case landing)	1	No	5500.00
		Makes: FIREX /MINIMAX/ ARMOUR /SAFEX/ KANNEX / CEASEFIRE			
		AEROSOL GENERATION SYSTEM (AGS) AND FIRE EXTINGUISHERS			
2085	ELEC-11.4.6	Supply, installation, testing and commissioning of Addressable Control panel for AGS system with monitoring system and provision of interactive TFT color Graphic Display with touch Screen Control and shall have built in feature of Mimic software which works on a Android based technology and a facility to show the layout location of the installation area and prescribed location of the devices during the fire accident. shall have minimum two level password protection. Shall have alert indication for missing device, contaminated device. The control panel shall have real-time clock (RTC) indicate time, date, month & year and along with a provision of Ethernet based circuit as if required. Makes : SALAMANDRA / SEAARA / AGS	1	No	47585.00
2086	ELEC-11.4.7	Supply, installation, testing and commissioning of Addressable Multi sensor with integrated smoke sensing chamber and heat sensing element. Addressable smoke detector shall operate on light scatter principle. The build-up of dirt or similar contamination on the sensing chamber shall be continually monitored by control panel, when it exceeds predetermined level; the panel has to indicate that the detector is in need of servicing. The detector shall have an integral microprocessor capable of making alarm decision based on alarm level set. The Obs/ft should be 0.5 obs/ft.	1	No	2429.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		The detector shall blink when the detector is addressed and glow steady on alarm. The detector shall have provision to alter the sensitivity from the panel. The detector shall have electronic free base. The detector and base construction shall be made of polycarbonate plastic. The detector shall be capable of reading from the control panel, i.e. health of the detector, alarm level setting. Latching the detector, isolating the detector from the control panel shall be possible. The detector shall preferably have twin LED's for 360 viewing angle. Makes : SALAMANDRA / SEAARA / AGS			
2087	ELEC-11.4.8	Supply, installation, testing and commissioning of addressable Loop Powered Sounder with integral beacon within horn using high intensity LED technology. The sounder beacon shall work with loop power. No separate power supply with cable shall be used. The sounder beacon shall be addressable type. It shall have electronic addressing. No DIP/DIL switches are permitted for address setting in order to avoid unauthorized setting. The construction of the sounder beacon shall be made of polycarbonate plastic. The sounder beacon sound pressure level shall be 85 dB at 10ft. Makes : SALAMANDRA / SEAARA / AGS	1	No	2816.00
2088	ELEC-11.4.9	Supply, installation, testing and commissioning of addressable Control Module with built-in LED. The LED shall blink when it is addressed and it shall glow steady when it is actuated and it should have principle of working with NC/NO relay circuit. It should have a cross zoning facility with a inbuilt sounder. The control module shall have electronic addressing. The control contact rating shall be a minimum of 2 amps @ 24V DC (Resistive). The control module shall operate from SLC loop power. No external power/cable shall be used. Makes : SALAMANDRA / SEAARA / AGS	1	No	3205.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2089	ELEC-11.4.10	Supply and installation of manually operated suppression system using Aerosol Generator System for all classes of fire with active substance of 3.3. Kg and does cooling effect with no re-ignition. The product with minimum life of 15 years and no maintenance. The discharge time should be 25 sec and has net weight of 4.6 kg and has a capacity to cover 60 m ³ and shall be confirmed to NFPA 2010 and has other national and international certificates.	1	No	72349.00
2090	ELEC-11.4.11	Supply of Auto Detection and Suppression System using Aerosol Generator System with required fittings as per standard composition for all classes of fire, With a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 °C as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 78 sec. The Generator with a net weight of 10 kg Active Substance of 3.25 kg. and has diameter 220mm and height 220mm The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc.Makes : SALAMANDRA / SEAARA / AGS	1	No	116534.00
2091	ELEC-11.4.12	Supply of Auto Detection and Suppression System using Dry Sprinkler Generator as per standard composition for all classes of fire, with a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 °C as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 21 sec. The Generator has a net weight of 1.2 kg. Active Substance of 0.3 kg and has diameter 20mm and height 135mm. The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	38845.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2092	ELEC-11.4.13	Supply of Auto Detection and Suppression System using Aerosol Generator System as per standard composition with required fittings for all classes of fire, with a provision to connect to detect smoke and heat with a obt/ft of 0.5 and flexibility of adjusting it for a temperature of 57/68/93/141 °C as per the site environment. The product Min Life shall be 15 years and no Maintenance. The Discharge time should be 50 sec. The Generator has a net weight of 4.5 kg. Active Substance of 1.4 kg and has diameter 40mm and height 187mm. The Generator is suitable for Server Room, Electrical Storage and technical appliances, important documents area & etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	68463.00
2093	ELEC-11.4.14	Supply of Aerosol Heat Starter Sprinkler used for Auto Detection and Suppression System for Aerosol Generator System for all Class of Fire. The heat Starter Sprinkler has various starter capacity, which ranges from +50c to +163c. The starter can cover up to 18 m2. The product Min Life shall be 15 years. The output power from the Starter is 3v and current 0.6A and operates at a temperature range of - 50c to +80c. The Starter Sprinkler is suitable for Server Room, Electrical Storage and technical appliances, Important documents area etc. Makes : SALAMANDRA / SEAARA / AGS	1	No	8255.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	11.5	CLEAN AGENT FIRE EXTINGUISHERS			
2094	ELEC-11.5.1	Supply and fixing of 2 Kg Fire extingisher Clean Agent HCFC 123, Stored pressure type, IS 15683 : 2006 pressure guage, gross weight 3.7 Kg empty weight 1.7 Kg, can hight 344mm, Diameter 108mm, discharge time minimum 8 secs , controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating 1A, B rating 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyster powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, ISI & CE approved, 5 Years warranty.	1	No	11270.00
		Makes : Safex / Kenex / Bharat.			
2095	ELEC-11.5.2	Supply and fixing of 4 Kg Fire extingisher Clean Agent HCFC 123, Stored pressure type, IS 15683 : 2006, pressure guage, gross weight 6.9Kg empty weight 2.9 Kg, can hight 440mm, Diameter 140mm, discharge time minimum 8 secs , controllable discharge mechanism, range minimum 2 meters, applicable on class A,B,C and electrically started Fire, A rating 1A, B rating 21B, can construction: Deep drawn & CO2 mig welded, Valve construction: Forging & Machining, Internal coating of Can: Epoxy powder coating, External coating of can: Epoxy polyster powder coating, sheet metal thickness: 1.60 mm, Helium leak detection tested, ISI & CE approved 5 Years warranty.	1	No	21505.00
		Makes : Safex / Kenex / Bharat.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2096	ELEC-11.5.3	Supply & Fixing of 4.5Kg, CO2 Type Fire Extinguisher, Trolley Mounted, Easy Weight Management, Used Unused Mechanism, Squeeze Grip, Gross Weight 19.1 Kg, Empty Weight 14.6 Kg, Can Height 860MM, Diameter 140MM, Discharge time minimum 13 Secs, Controllable discharge mechanism, Range minimum 2 Meters, Applicable on Class B,C & electrically started Fire, B Rating 13B, Can Construction : Hot Spinning / Forging, Valve Construction : Forging & Machining, Internal Coating of Can : Not Applicable, External Coating of Can : Spray Painting, Sheet metal thickness : 4.5MM, ISI & CE Approved, 2 Year Warranty Including transportation, all taxes and all labour charges etc complete.	1	No	8395.00
		Makes : Safex / Kenex / Bharat / Reliance	1	No	1334.00
2097	ELEC-11.5.4	Supply and fixing of Escape signage boards in Rigid Photo luminescent based glow in Dark rigid sheet with high intensity luminous properties with specificaiton of Cease Fire or its equivalent make Model-1ES01			
	11.6	WATER MIST FIRE EXTINGUISHERS			
2098	ELEC-11.6.1	Supply & Fixing of Water Mist 9 Ltr. Fire Extinguisher : Gross Weight - 23.9 kg., Weight of the empty firefighting system without compressed air bottle and bottle valve - 14.9 kg., Can Height - 560 MM, Diameter - 204MM, Weight of the gun- 1.9kg, Nominal charge - 9 Ltr., Recoil - approx. 10N, Extinguishing Media Flow - 0.23 L/ sec, Water Discharge Hose - 13 mm, Discharge time minimum 25 Secs, Range minimum 10 Meters, Compressed Air to Gun - 10 mm.	1	No	163000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Applicable on Class A, B, C & Electrically started Fires, ARating-27A, BRating-233B, Compressed air bottle (volume/pressure) - 2L / 300bar, Operating pressure(dynamic)-approx 5.0 bar, Lancing distance of the extinguishing agent-in spray Approx. 7.0 m, in jet mode Approx, 12.0 m. Operation time- approx 40 sec, Extinguishing enhancement agent-Foam Additive, CE and ERDA approved, Sheet Metal Thickness - 1.5MM, 1 Year Warranty. Makes: Cease Fire or Equivalent			
2099	ELEC-11.6.2	Refilling of Fire extinguisher of DCP type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	200.00
2100	ELEC-11.6.3	Refilling of Fire extinguisher of ABC type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	225.00
2101	ELEC-11.6.4	Refilling of Fire extinguisher of CO2 type by dismantling from site to work shop for refilling includes removing of existing powder and cleaning the cylinder, delivery pipe, nozzle internally and refilling new powder complete with reinstalling properly at site with necessary certificate including transportation and labour charges.	1	Kg	175.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	11.7	FIRE HYDRANT AND SPRINKLER SYSTEM			
	ELEC-11.7.1	Supply, Transportation, installation, testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following complete in all respect as required			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 2900 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
		Makes of Motors: Siemens/ ABB/ Kirloskar / KSB / CRI			
2102	a	1620 LPM, 56 Mtr Head	1	Set	416588.00
2103	b	1620 LPM, 70 Mtr Head	1	Set	468826.00
2104	c	1620 LPM, 88 Mtr Head	1	Set	509163.00
2105	d	1620 LPM, 110 Mtr Head	1	Set	502000.00
2106	e	1620 LPM, 130 Mtr Head	1	Set	572000.00
	ELEC-11.7.2	Supply, Transportation, installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 2900 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
		Makes of Motors: Siemens/ ABB/ Kirloskar / KSB / CRI			
2107	a	2280 LPM, 56 Mtr Head	1	Set	431135.00
2108	b	2280 LPM, 70 Mtr Head	1	Set	485358.00
2109	c	2280 LPM, 88 Mtr Head	1	Set	535613.00
2110	d	2280 LPM, 110 Mtr Head	1	Set	532000.00
2111	e	2280 LPM, 130 Mtr Head	1	Set	622000.00
	ELEC-11.7.3	Supply, Transportation, installation , testing and commissioning of electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.			
		a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ----- Mtr. head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 2900 RPM, suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
		Makes of Motors: Siemens/ ABB/ Kirloskar / KSB / CRI			
2112	a	2850 LPM, 56 Mtr Head	1	Set	470810.00
2113	b	2850 LPM, 70 Mtr Head	1	Set	525033.00
2114	c	2850 LPM, 88 Mtr Head	1	Set	563385.00
2115	d	2850 LPM, 110 Mtr Head	1	Set	572000.00
2116	e	2850 LPM, 130 Mtr Head	1	Set	662000.00
	ELEC-11.7.4	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at ---Mtr head conforming to IS 1520			
		b) Suitable HP, 1800 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
2117	a	1620 LPM, 56 Mtr Head	1	Set	550160.00
2118	b	1620 LPM, 70 Mtr Head	1	Set	603060.00
2119	c	1620 LPM, 88 Mtr Head	1	Set	642735.00
2120	d	1620 LPM, 110 Mtr Head	1	Set	632000.00
2121	e	1620 LPM, 130 Mtr Head	1	Set	672000.00
	ELEC-11.7.5	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at----- Mtr head conforming to IS 1520			
		b) Suitable HP, 1800 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick alluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
2122	a	2280 LPM, 56 Mtr Head	1	Set	743245.00
2123	b	2280 LPM, 70 Mtr Head	1	Set	797468.00
2124	c	2280 LPM, 88 Mtr Head	1	Set	835820.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2125	d	2280 LPM, 110 Mtr Head	1	Set	802000.00
2126	e	2280 LPM, 130 Mtr Head	1	Set	872000.00
	ELEC-11.7.6	Supply, Transportation, installation, Testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 Kg / sq.cm. at highest and farthest outlet at specified flow of ----- lpm at---- Mtr head conforming to IS 1520			
		b) Suitable HP, 1800 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 Volts / 24 Volts electric starting equipment, Diesel Tank, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50mm thick glass wool with 1.0mm thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Engines : Kirloskar / Cummins.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
2127	a	2850 LPM, 56 Mtr Head	1	Set	842433.00
2128	b	2850 LPM, 70 Mtr Head	1	Set	896655.00
2129	c	2850 LPM, 88 Mtr Head	1	Set	935008.00
2130	d	2850 LPM, 110 Mtr Head	1	Set	952000.00
2131	e	2850 LPM, 130 Mtr Head	1	Set	1072000.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-11.7.7	Supply, Transportation, installation , testing and commissioning of electric driven pressurisation / Jockey pump suitable for automatic operation and consisting of following : complete in all respect as required			
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of ---- --- lpm at ----- Mtr head conforming to IS 1520. Pump shall be capable of furnishing not less than 150% of rated capacity at a head of not less than 65% of the rated head. The shut off rate shall not exceed 120% of rated head.			
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS 325-1978 (upto date) with flexible coupling guard, complete as required.			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
		Makes of Motors : Siemens/ ABB / Kirloskar / KSB / CRI			
2132	a	180 LPM, 56 Mtr Head	1	Set	71151.00
2133	b	180 LPM, 70 Mtr Head	1	Set	100642.00
2134	c	180 LPM, 88 Mtr Head	1	Set	126960.00
2135	d	180 LPM, 110 Mtr Head	1	Set	132000.00
2136	e	180 LPM, 130 Mtr Head	1	Set	172000.00
	ELEC-11.7.8	Supply, Transportation, installation , testing and commissioning of electric driven Terrace / Booster pump suitable for automatic operation and consisting of following : complete in all respect as required.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		a) Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of lpm at Mtr head conforming to IS 1520			
		b) Suitable HP SQ cage induction motor TEFC type suitable for operation on 415Volts, 3 phase 50 Hz. AC with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325			
		c) M.S. Fabricated common base plate, coupling, coupling guard, foundation bolts etc as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		Makes of Pumps: Kirloskar / Mather&Platt / KSB / CRI			
		Makes of Motors : Siemens/ ABB / Kirloskar / KSB / CRI			
2137	a	900 LPM, 45 Mtr Head	1	Set	80673.00
2138	b	750 LPM, 35 Mtr Head	1	Set	72738.00
2139	c	450 LPM, 35 Mtr Head	1	Set	59513.00
		CONTROL PANELS			
2140	ELEC-11.7.9	Fabrication, supply, Transportation, Insallation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply.	1	No	285131.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Makes of MCCBs : LK (L & T) / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / LK (L & T) / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		250A, 50kA 4 Pole MCCB, Ics=100% Icu rating			
		Digital Voltmeter 0-500V with selector switch			
		Digital Ammeter (0-250 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 300A			
		<u>OUTGOING :</u>			
		Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps			
		<u>MAIN FIRE PUMP</u>			
		125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation selector switch for local / remote, auto / manual / OFF operation.			
		<u>JOCKEY PUMP</u>			
		63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation.			
		<u>DIESEL ENGINE CONTROL</u>			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2141	ELEC-11.7.10	Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Water Temp and Engine on indication. Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0 - 20 A DC Ammeter, All standard relays and accessories for automatic operation of diesel engine System Controller.	1	No	334593.00
		Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : LK / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / LK / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		400A, 50kA 4 Pole MCCB, Ics=100% Icu rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-400 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 500A			
		<u>OUTGOING :</u>			
		Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps			
		MAIN FIRE PUMP			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation.			
		JOCKEY PUMP			
		100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation.			
		DIESEL ENGINE CONTROL			
2142	ELEC-11.7.1 1	Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller	1	No	375590.00
		Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications. Makes of MCCBs : LK / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / LK / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		630A, 50kA 4 Pole MCCB, Ics=100% Icu rating			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-630 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 800Amps			
		<u>OUT GOING :</u>			
		Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps			
		<u>MAIN FIRE PUMP</u>			
		250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation.			
		<u>JOCKEY PUMP</u>			
		125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation.			
		<u>DIESEL ENGINE CONTROL</u>			
2143	ELEC-11.7.1 2	Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.	1	No	433780.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : LK / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / LK / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-400 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 500Amps			
		<u>OUT GOING :</u>			
		Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps			
		MAIN FIRE PUMPS			
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation - 2 sets			
		JOCKEY PUMP			
		63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation - 2 sets			
		DIESEL ENGINE CONTROL			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2144	ELEC-11.7.1 3	Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indi Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller	1	No	518420.00
		Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : LK / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / LK / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-630 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 800Amps			
		<u>OUT GOING :</u>			
		Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps			
		MAIN FIRE PUMP			
		200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation - 2 sets			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		JOCKEY PUMP			
		100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation - 2 sets			
		DIESEL ENGINE CONTROL			
2145	ELEC-11.7.14	Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller.	1	No	669185.00
		Designing, Supply, Transportation, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification Makes of MCCBs : LK / Siemens / Legrand / Schneider / ABB / Hager Makes of Meters : Schneider (Conserve) / LK / Elmeasure / Siemens			
		<u>INCOMING :</u>			
		800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating			
		Digital Voltmeter 0-500V with selector switch			
		Ammeter (0-800 A) with selector switch & CTs etc.			
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps			
		Set of Copper Bus Bar 1000Amps			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		<u>OUT GOING :</u>			
		Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps			
		Main Fire Pump			
		250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation - 2 sets			
		JOCKEY PUMP			
		125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local / remote, auto / manual / OFF operation - 2 sets			
		DIESEL ENGINE CONTROL			
		Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller			
		FIRE SURVIVAL CABLES			
	ELEC-11.7.15	Supply of XLPE insulated 1.5 Sqmm Armoured 2 core FRLSZH fire alarm cable (RED) and fire survival cable conforming to IS 7098 (part1) 1998, 1100V grade ----- Core ISI marked with standard solid conductor Makes : Batra Henlay / Havells / RR kable / Polycab			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2146	a	2 core	1	Mtr	155.00
2147	b	3 core	1	Mtr	185.00
2148	c	4 core	1	Mtr	250.00
		FIRE SEALENT			
2149	ELEC-11.7.1 6	Supply and erection of Fire Stop Mortar System with minimum 2 hours fire rating when tested in accordance with UL 1479/ ASTM-E 814 standards, for horizontal openings in floors or slabs after passing service lines like metal pipes, ducts without insulations cables / cable bundles, cable trays etc. The mortar shall be a light weight cementitious product and shall carry test certificate in accordance with IEC 60068-2-57:1999-11 (Environmental testing) as per Part 2-57: Test for Vibration - time - history method and VERTEQII for seismic zone 4. The product shall be age tested as per Dafstb and DIBT standards. Make : Hilti	1	Sq Mtr	17300.00
		The product shall carry test certificate for mold resistance rating of 0 as determined by ASTM G21-96. The Product shall be age tested as per Dafstb and DIBT standards. The System shall be UL listed & classified and product shall bear the UL and FM approval logo on the packing .			
		MS PIPES			
	ELEC-11.7.1 7	Supply, Transportation, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
		C' CLASS			
2150	a	300 mm dia 'C' Class	1	Mtr	10080.00
2151	b	250 mm dia 'C' Class	1	Mtr	6425.00
2152	c	200 mm dia 'C' Class	1	Mtr	5165.00
2153	d	150 mm dia 'C' Class	1	Mtr	3658.00
2154	e	100 mm dia 'C' Class	1	Mtr	2396.00
2155	f	80 mm dia 'C' Class	1	Mtr	1633.00
2156	g	65 mm dia 'C' Class	1	Mtr	1224.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2157	h	50 mm dia 'C' Class	1	Mtr	984.00
2158	i	40 mm dia 'C' Class	1	Mtr	765.00
2159	j	32 mm dia 'C' Class	1	Mtr	651.00
2160	k	25 mm dia 'C' Class	1	Mtr	500.00
		B' CLASS			
	ELEC-11.7.1 8	Supply, Transportation, laying, testing & commissioning of 'B' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
2161	a	300 mm dia 'B' Class	1	Mtr	6260.00
2162	b	250 mm dia 'B' Class	1	Mtr	5523.00
2163	c	200 mm dia 'B' Class	1	Mtr	4510.00
2164	d	150 mm dia 'B' Class	1	Mtr	2956.00
2165	e	100 mm dia 'B' Class	1	Mtr	1998.00
2166	f	80 mm dia 'B' Class	1	Mtr	1467.00
2167	g	65 mm dia 'B' Class	1	Mtr	1099.00
2168	h	50 mm dia 'B' Class	1	Mtr	864.00
2169	i	40 mm dia 'B' Class	1	Mtr	599.00
2170	j	32 mm dia 'B' Class	1	Mtr	541.00
2171	k	25 mm dia 'B' Class	1	Mtr	441.00
		GI PIPES			
	ELEC-11.7.1 9	Supply, Transportation, laying, testing & commissioning of 'C' class heavy duty GI pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required Makes : Jindal Hissar / Tata pipes			
		C' CLASS			
2172	a	300 mm dia 'C' Class	1	Mtr	10080.00
2173	b	250 mm dia 'C' Class	1	Mtr	7812.00
2174	c	200 mm dia 'C' Class	1	Mtr	6124.00
2175	d	150 mm dia 'C' Class	1	Mtr	4120.00
2176	e	100 mm dia 'C' Class	1	Mtr	2772.00
2177	f	80 mm dia 'C' Class	1	Mtr	1940.00
2178	g	65 mm dia 'C' Class	1	Mtr	1510.00
2179	h	50 mm dia 'C' Class	1	Mtr	1183.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2180	i	40 mm dia 'C' Class	1	Mtr	906.00
2181	j	32 mm dia 'C' Class	1	Mtr	785.00
2182	k	25 mm dia 'C' Class	1	Mtr	580.00
		B' CLASS			
	ELEC-11.7.2 0	Supply, Transportation, laying, testing & commissioning of 'B' class heavy duty GI pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required. Makes : Jindal Hissar / Tata pipes			
2183	a	300 mm dia 'B' Class	1	Mtr	7200.00
2184	a	250 mm dia 'B' Class	1	Mtr	6804.00
2185	b	200 mm dia 'B' Class	1	Mtr	5330.00
2186	c	150 mm dia 'B' Class	1	Mtr	3830.00
2187	d	100 mm dia 'B' Class	1	Mtr	2444.00
2188	e	80 mm dia 'B' Class	1	Mtr	1726.00
2189	f	65 mm dia 'B' Class	1	Mtr	1328.00
2190	g	50 mm dia 'B' Class	1	Mtr	1051.00
2191	h	40 mm dia 'B' Class	1	Mtr	810.00
2192	i	32 mm dia 'B' Class	1	Mtr	689.00
2193	j	25 mm dia 'B' Class	1	Mtr	483.00
		HYDRANAT VALVES			
	ELEC-11.7.2 1	Supply and fixing single headed internal / External hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
2194	a	Single headed Gunmetal	1	No	9697.00
2195	b	Single headed Stainless Steel	1	No	7245.00
		BUTTER FLY VALVES			
	ELEC-11.7.2 2	Supply, testing and commissioning of butterfly valve PN 1.6, with Bronze / Gun metal seat duly ISI marked complete with Nuts, Bolts, Washers, gaskets, conforming to IS 13095 of following sizes as required. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell / Kartar			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2196	a	250 mm . dia	1	No	21783.00
2197	b	200 mm . dia	1	No	9165.00
2198	c	150 mm dia	1	No	7572.00
2199	d	100 mm dia	1	No	5910.00
2200	e	80 mm dia	1	No	5379.00
2201	f	65 mm dia	1	No	4253.00
2202	g	50 mm dia	1	No	3990.00
2203	h	45 mm dia	1	No	3200.00
		NON RETURN VALVES(NRV)			
	ELEC-11.7.2 3	Supply, installation, testing and commissioning of C.I. non - return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc as required Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell./ Kartar			
2204	a	200 mm dia	1	No	14876.00
2205	b	150 mm dia	1	No	11901.00
2206	c	100 mm dia	1	No	11091.00
2207	d	80 mm dia	1	No	8235.00
2208	e	50 mm dia	1	No	4051.00
		WAFFER LUG TYPE BUTTERFLY VALVES			
	ELEC-11.7.2 4	Supply and delivery of CI Wafer Lug type Butterfly Valves conforming to IS 13095/1991(Reaffirmed 1998) including transportation etc., complete. Makes: Audco / Kirloskar / BDK / H-Shankar / Leader/ Zolotto / Intervolve / Honeywell/ Kartar			
2209	a	250 mm. dia	1	No	21120.00
2210	b	200 mm. dia	1	No	14744.00
2211	c	150 mm dia	1	No	9563.00
2212	d	100 mm dia	1	No	6376.00
2213	e	80 mm dia	1	No	4782.00
2214	f	50 mm dia	1	No	3852.00
		Y-STAINER			
	ELEC-11.7.2 5	Supply, installation, testing and commissioning of C.I. flanged " Y " type strainer with SS Mesh, suitable flanges, nuts, bolts, gaskets etc., complete. (PN 10 Rating)			
2215	a	300 mm dia	1	No	44100.00
2216	b	250 mm dia	1	No	31612.00
2217	c	200 mm dia	1	No	25768.00
2218	d	150 mm dia	1	No	15939.00
2219	e	100 mm dia	1	No	7572.00
2220	f	80 mm dia	1	No	5313.00
2221	g	50 mm dia	1	No	3587.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		GUN METAL VALVES			
	ELEC-11.7.2 6	Supply, installation, testing and commissioning of brass / gun metal chrome finished ball valve including cost of all materials, labour charges with required machinery etc., complete. of following sizes as required. Make: Newage / Winco / Padmini / Safex.			
2222	a	50 mm dia	1	No	6342.00
2223	b	40 mm dia	1	No	4242.00
2224	c	32 mm dia	1	No	3056.00
2225	d	25 mm dia	1	No	1596.00
2226	e	20 mm dia	1	No	1313.00
		RRL HOSE PIPE			
	ELEC-11.7.2 7	Supply and fixing 63mm dia, 15 mtr long RRL hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
2227	a	Gun metal	1	No	6799.00
2228	b	SS couplings	1	No	5579.00
		CP HOSE PIPES			
	ELEC-11.7.2 8	Supply and fixing 63mm dia, 15 mtr long CP hose pipe with 63mm dia Male and Female Gun metal / SS couplings duly binded with GI wire, rivets etc conforming to IS 636 (Type -A) as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini. / Kartar			
2229	a	Gun metal	1	No	5796.00
2230	b	SS couplings	1	No	5313.00
		HOSE REEL			
2231	ELEC-11.7.2 9	Supply and fixing First - Aid Hose Reel with MS construction spray painted in Post office Red, Conforming to IS 884 with upto date amendments, complete with the following as required.	1	No	8495.00
		a) 36.6 Mtr Long 20mm (Nominal internal) dia water hose Thermoplastic / Textile reinforced / Rubber braided / Polypropylene Type - 2 as per IS:12585 Make: Eversafe / Newage / Newtech / SRI			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		b) 20mm (Nominal internal) dia gun metal globe valve and nozzle.Make: Newage / Winco / Padmini / Newtech / Safex.			
		c) Drum and brackets for fixing the equipments on wall.			
		d) Connections from riser with 25mm dia stop valve (gun metal) & MS pipe.			
		CRCA HOSE BOX			
2232	ELEC-11.7.30	Supply and fixing of hose cabinet of size 750mm X 600mm x 250mm made of No 16 gauge SWG CRCA sheet with 6mm thick glazed glass door including necessary locking arrangement suitable to accommodate 2 Nos 15 mtr long Hose pipe, 1 No branch pipe, mounted on wall OR raised brick platform and duly painted with Post office red externally and white internally with synthetic enamel paint complete in all respect, for external hydrant as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar	1	No	6195.00
		BRANCH PIPE			
	ELEC-11.7.31	Supply and fixing 63mm dia Gun metal branch pipe with 20mm (Nominal internal diameter) size Gun metal / SS nozzle conforming to IS 903, suitable for instantaneous connection to interconnect hose pipe coupling as required. Make : Mini Max / Safex / Newage / Winco / Newtech / Padmini./ Kartar			
2233	a	Gun metal	1	No	2922.00
2234	b	SS couplings	1	No	2125.00
		FIRE BRIGADE CONNECTION			
	ELEC-11.7.32	Supply and fixing ----- inlet couplings complete with cap and chain as required for 150mm dia MS pipe connection, conforming to IS 904 as required. Make: Mini Max / Safex / Newage / Winco / Newtech / Padmini / Kartar			
2235	a	4Way Fire brigade connection cast iron body with 4 Nos Gun metal male instantaneous	1	No	10143.00
2236	b	3Way Fire brigade connection cast iron body with 3 Nos Gun metal male instantaneous	1	No	8876.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2237	c	2Way Fire brigade connection cast iron body with 2 Nos Gun metal male instantaneous	1	No	7607.00
		AIR CUSHION TANK (AIR VESSEL)			
2238	ELEC-11.7.3 3	Supply and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25mm dia Gun metal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	1	No	19019.00
		SPRINKLERS			
2239	ELEC-11.7.3 4	Supply, installation, testing and commissioning of conventional Sprinkler quartzoid bulb (Standard Response) type with 15mm screwed end connection of 68°C temperature rating, K 80 and Orifice shall not be less than 6 mm. Sprinklers shall be UL listed / FM approved with Chrome finishing. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / Newtech / SHARP / Kartar	1	No	609.00
2240	ELEC-11.7.3 5	Supply, installation, testing and commissioning of conventional <u>Concealed</u> Sprinkler quartzoid bulb (Standard Response) type with 15mm screwed end connection of 68°C temperature rating, K 80 and Orifice shall not be less than 6 mm. Sprinklers shall be UL listed / FM approved with Chrome finishing. Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / SHARP / Kartar	1	No	1521.00
		BRAIDED FLEXIBLE SPRINKLER HOSE PIPE			
	ELEC-11.7.3 6	Supply, installation, testing & commissioning of stainless steel braided sprinkler flexible pipe (hose) for dropping sprinklers below false ceiling, pipe shall be 12 bar pressure rating and ----- long 25 mm dia with union / reducer collar, clamps etc., as required (Only for common area lobby) UL Listed Makes: SAFEX / HD / TYCO / VIKING / NEWAGE / SHARP / Kartar			
2241	a	1500 mm	1	No	1510.00
2242	b	1000-1200 mm	1	No	1293.00
2243	c	700-800 mm	1	No	1075.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		PRESSURE SWITCHES AND FLOW SWITCHES			
2244	ELEC-11.7.3 7	Supply, installation, testing and commissioning of Pressure Switch (PN 20 bar) of suitable range for pump sets with Ball valves, fittings like unions / colours / reducers etc., Make : Danfoss / Indfoss	1	No	3019.00
2245	ELEC-11.7.3 8	Supply, installation, testing and commissioning of flow switch on sprinkler distribution header on each floor and shall be connected to fire alarm panel through cable. Cable shall be measured separately. Makes : System Sensor / Switzer	1	No	6038.00
2246	ELEC-11.7.3 9	Supply and fixing Flow Switches in 150 mm dia MS pipe. Makes : System Sensor / Switzer	1	No	8453.00
		PRESSURE GAUGES			
2247	ELEC-11.7.4 0	Supply, installation, testing and commissioning of Pressure gauges (PN 20 bar) of suitable range for pump sets with Ball valves, Fittings like unions / colours / reducers etc.(Glistering filled) Makes : HGURU / FIEBIG	1	No	797.00
2248	ELEC-11.7.4 1	Supply, installation, testing and commissioning of Forged brass chrome finished Ball valves with fittings of screwed end type. Makes : Zoloto / Leader / Honeywell / Kartar	1	No	1392.00
2249	ELEC-11.7.4 2	Supply, installation, testing and commissioning of 25mm dia Ball valve Makes : Zoloto / Leader / Honeywell / Kartar	1	No	772.00
		AIR RELEASE VALVE			
2250	ELEC-11.7.4 3	Supply, installation, testing and commissioning of approved make 25 mm dia. With automatic air release valve with unions etc. complete. (PN 16) (Spring loaded type)	1	No	1480.00
		FIRE SAFTEY AUDIT			
2251	ELEC-11.7.4 4	Providing / Conducting complete fire audit including submission of fire audit report for the whole premises.	1	Sq Mtr	7.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		ANTI CORROSIVE BITUMINOUS PAINT			
	ELEC-11.7.4 5	Supply and wrapping the anti corrosive material for buried pipes with coating of Primer and wrapping with 4 mm thick polymer corrosion resistant tape as per IS : 10221 with 15 mm minimum overlap as per standard specifications.			
2252	a	80 mm nominal dia	1	Mtr	354.00
2253	b	100 mm nominal dia	1	Mtr	468.00
2254	c	150 mm nominal dia	1	Mtr	531.00
2255	d	200 mm nominal dia	1	Mtr	746.00
		VANE TYPE WATER FLOW DETECTOR			
	ELEC-11.7.4 6	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass / bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser / sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of following sizes as required : Makes : HD / TYCO / NEWAGE or its equivalent make as desired by the department.			
2256	a	80 mm dia	1	No	46754.00
2257	b	100 mm dia	1	No	48829.00
2258	c	150 mm dia	1	No	50853.00
		DELUGE VALVE			
	ELEC-11.7.4 7	Supplying, installation, testing & commissioning of Deluge valve with wet pilot trim (hydraulic release), electric release trim test and alarm trip complete with all accessories, fittings, pressure gauges, valves, actuator manifold etc. alarm gong including upstream and downstream main header. The valve shall be UL listed / FM approved. Makes : HD / TYCO / NEWAGE or its equivalent make as desired by the department.			
2259	a	50 mm dia	1	Set	91080.00
2260	b	80 mm dia	1	Set	93610.00
2261	c	100 mm dia	1	Set	96140.00
2262	d	150 mm dia	1	Set	116380.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2263	ELEC-11.7.4 8	Supply, installation, testing & commissioning of water curtain nozzle with 15mm screwed end connection and K 23 factor & angle of spray shall be as per detail engineering. Nozzle shall be made of brass with Chrome finished.	1	No	696.00
2264	ELEC-11.7.4 9	Supply, installation, testing & commissioning of electric release trim assembly for deluge wall with two way solenoid valve, weather proof operation on 24 volts DC supply complete as required.	1	No	7590.00
2265	ELEC-11.7.5 0	Supply, installation, testing & commissioning of adjustable rosette plate for 15mm dia in white finish UL Listed or FM approved complete as required.	1	No	253.00
		SLUICE VALVE			
	ELEC-11.7.5 1	Supply, fixing, testing & commissioning of ----- C.I. Gate valves OS &Y as per IS:14846 (PN 10 Rating) and rising spindle type with flanges, bolts, nuts, washers, gaskets etc. The valve shall be fitted with chain lock and key arrangement .			
2266	a	40 mm dia	1	Set	5693.00
2267	b	50 mm dia	1	Set	7590.00
2268	c	65 mm dia	1	Set	10120.00
2269	d	80 mm dia	1	Set	10753.00
2270	e	100 mm dia	1	Set	16445.00
2271	f	150 mm dia	1	Set	22770.00
2272	g	200 mm dia	1	Set	44275.00
2273	h	250 mm dia	1	Set	60720.00
2274	i	300 mm dia	1	Set	69575.00
		ORIFICE PLATE			
2275	ELEC-11.7.5 2	Supply and fixing orifice plate made of 6 mm thick stainless steel with orifice of required size in between flange & LANDING valve of hydrant take off point to reduce pressure to working pressure, complete as per relevant codes and approval of the local Fire Service Department.	1	No	12650.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit	Scheduled Rate
		SECTION - 12		
		GENERATORS SPECIFICATION		
	12.1	DG SET WITH STANDARD CONTROL PANEL		
	ELEC-12.1.1	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put continuous rating directly coupled Engine, Alternator and radiator with guard and mounted on a common base frame of Robust construction and complete with standard control panel having IP-52 protection, anti vibration mounts of reputed make, Acoustic Enclosure as per CPCB norms IV, sound absorbing material to restrict sound level up to 75 dB up to 1 mtr distance and etc as per the following specifications mentioned.		
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP23.		
		B.Diesel Engine : Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc. 01. Exhaust pipe of required size as per the standards. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards		

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2276	a	10 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 10 KVA output continious rating at 0.8 p.f. Batteries.	1	No	347139.00
2277	b	15 KVA, 3 Phase, 415, 50 Hz, 19 BHP, water cooled multy cylinder diesel generator set with alternator of 15 KVA output continious rating at 0.8 p.f. Batteries.	1	No	373842.00
2278	c	20 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 20 KVA output continious rating at 0.8 p.f. Batteries.	1	No	395600.00
2279	d	25 KVA, 3 Phase, 415, 50 Hz, ...BHP, water cooled multy cylinder diesel generator set with alternator of 25 KVA output continious rating at 0.8 p.f. Batteries.	1	No	473860.00
2280	e	30 KVA, 3 Phase, 415, 50 Hz, 40 to 42 BHP, water cooled multy cylinder diesel generator set with alternator of 30 KVA output continious rating at 0.8 p.f. Batteries.	1	No	528900.00
2281	f	40 KVA, 3 Phase, 415, 50 Hz, 56 BHP, water cooled multy cylinder diesel generator set with alternator of 40 KVA output continious rating at 0.8 p.f. Batteries.	1	No	613180.00
	ELEC-12.1.2	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put continuous rating directly coupled Engine, Alternator and radiator with guard and mounted on a common base frame of Robust construction and complete with standard control panel having IP-52 protection, anti vibration mounts of reputed make, Acoustic Enclosure as per CPCB norms IV, sound absorbing material to restrict sound level up to 75 dB up to 1 mtr distance and etc as per the following specifications mentioned.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.			
		B.Diesel Engine : Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton / Eicher / Ashok Leyland Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc.with standard control panel.01. Exhaust pipe of required size as per the standards.02. Diesel tank suitable for 8 to 12 Hours running capacity.03. Residential Silencer.04. SMF Batteries with leads as per the Manufacturer standards			
2282	a	58.5 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 58.5 KVA output continious rating at 0.8 p.f. Batteries.	1	No	723465.00
2283	b	82.5 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 82.5 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1013400.00
2284	c	125 KVA, 3 Phase, 415, 50 Hz, 154 BHP, water cooled multy cylinder diesel generator set with alternator of 125 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1257300.00
2285	d	160 KVA, 3 Phase, 415, 50 Hz, not less than 200 BHP, water cooled multy cylinder diesel generator set with alternator of 160 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1681875.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2286	e	200 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 200 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2101050.00
2287	f	250 KVA, 3 Phase, 415, 50 Hz, not less than 310 BHP, water cooled multy cylinder diesel generator set with alternator of 250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2296665.00
2288	g	320 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 320 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2841075.00
2289	h	400 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 400 KVA output continious rating at 0.8 p.f. Batteries.	1	No	3726000.00
2290	i	500 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4153800.00
2291	j	625 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 625 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4463250.00
2292	k	750 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 750 KVA output continious rating at 0.8 p.f. Batteries.	1	No	5313000.00
	ELEC-12.1.3	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put continuous rating directly coupled Engine, Alternator and radiator with guard and mounted on a common base frame of Robust construction and complete with standard control panel having IP-52 protection, anti vibration mounts of reputed make, Acoustic Enclosure, sound absorbing material to restrict sound level up to 75 dB up to 1 mtr distance and etc as per the following specifications mentioned.			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.			
		B.Diesel Engine : Kirloskar / Cummins Diesel Engine start, developing suitable ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc.with standard control panel.01. Exhaust pipe of required size as per the standards.02. Diesel tank suitable for 8 to 12 Hours running capacity.03. Residential Silencer.04. SMF Batteries with leads as per the Manufacturer standards			
2293	a	1010 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 1010 KVA output continious rating at 0.8 p.f. Batteries.	1	No	6643000.00
2294	b	1250 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 1250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	7969500.00
2295	c	1500 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 1500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	9563400.00
2296	d	2000 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 1500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	12568000

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2297	e	2500 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 1500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	15710000
	12.2	DG SET WITH AMF PANEL			
	ELEC-12.2.1	Supply, Transportation, erection and commissioning (Excluding Foundation) of 3 Phase, 415, 50Hz, water cooled multi cylinder diesel generator set with alternator of - - - KVA/ - - - - KW out put continuous rating directly coupled Engine, Alternator and radiator with guard and mounted on a common base frame of Robust construction and complete with AMF control panel having IP-52 protection, anti vibration mounts of reputed make, Acoustic Enclosure as per CPCB norms IV, sound absorbing material to restrict sound level up to 75 dB up to 1 mtr distance and etc as per the following specifications mentioned.			
		A. Alternator : Kirloskar / Stamford / Crompton Greaves / Leroy Somer make. The alternator of the output rating shall be 3 Phase, 415V, 50Hz, Ac , 0.8 P.F. lagging at 1500 RPM. The alternator is self excited, self regulated, and shall confirm to IS: 13364 of 1992 with regulation of +5% from no load to full load. degree of protections shall be IP21.			
		B.Diesel Engine : Kirloskar / Cummins / Mahindra & Mahindra / Greaves Cotton Diesel Engine start, developing suitable --- ----- BHP output at 1500 RPM with mechanical / electronic governing so as to enable the alternator to give - - - -KVA continuous output at 0.8 P.F. lagging at NTP conditions. The diesel engine shall be capable of providing 10% O/L for 1 Hr for every 11 Hrs of continuous running at full load. The engine with 1st filling of oil and Diesel etc. 01. Exhaust pipe of required size as per the standards. 02. Diesel tank suitable for 8 to 12 Hours running capacity. 03. Residential Silencer. 04. SMF Batteries with leads as per the Manufacturer standards			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		C. AMF Control Panel:- AMF control panel shall be fabricated with 16SWG CRCA sheet shall be totally enclosed with dust and Vermin proof, floor mounted / wall mounted type and shall be comprising the following.01. Voltmeter with selector switch.02. 4 Pole MCCB incomer of -----A rating of Schenieder / LK make for EB and DG . 03. Ammeter with selector switch with CTs. 04. PF Meter and frequency Meter. 05. Indicator lamps (set Run, Load ON) with fuses. 06. KWH Meter of required rating. 07. Set of control fuses and current transformer. 08. Input Terminal board and output Terminal Board. 09. Battery charger with transformer rectifier unit. 10. Alternator supply air break contactor of LK make.11. Main supply air break contactor of LK make. 12. Audio Visual annunciation .13. Main supply voltage set of control relays and timers with one mode selector switch, set of push buttons. 14.Control cable up to 15 Mtrs 2.5Sqmm 6 Core			
2298	a	58.5 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 58.5 KVA output continious rating at 0.8 p.f. Batteries.	1	No	927312.00
2299	b	82.5 KVA, 3 Phase, 415, 50 Hz, ... BHP, water cooled multy cylinder diesel generator set with alternator of 82.5 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1333020.00
2300	c	125 KVA, 3 Phase, 415, 50 Hz, 154 BHP, water cooled multy cylinder diesel generator set with alternator of 125 KVA output continious rating at 0.8 p.f. Batteries.	1	No	1591890.00
2301	d	160 KVA, 3 Phase, 415, 50 Hz, not less than 200 BHP, water cooled multy cylinder diesel generator set with alternator of 160 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2018370.00
2302	e	200 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 200 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2464775.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2303	f	250 KVA, 3 Phase, 415, 50 Hz, not less than 310 BHP, water cooled multy cylinder diesel generator set with alternator of 250 KVA output continious rating at 0.8 p.f. Batteries.	1	No	2713776.00
2304	g	320 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 320 KVA output continious rating at 0.8 p.f. Batteries.	1	No	3214777.00
2305	h	400 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 400 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4095000.00
2306	i	500 KVA, 3 Phase, 415, 50 Hz, not less than BHP, water cooled multy cylinder diesel generator set with alternator of 500 KVA output continious rating at 0.8 p.f. Batteries.	1	No	4481300.00
		NOTE: If only <u>supply of DG set</u> is there, deduct 2% on above cost towards, installation, testing and commisining.			
		SECTION - 13			
	13.1	UPS SYSTEMS			
	ELEC-13.1.1	Supply and installation of ----- ----- home Inverter system pure sine wave out put, single phase input / Single phase output with tubular batteries for 1 Hour Back up. Makes: Servomax / Top Power / Amar Raja / Samhitha / Microtech / Exide / Sukam / Fuji Electric			
2307	a	800VA, 12VDC	1	No	8883.00
2308	b	1400VA, 24VDC	1	No	12540.00
2309	c	2000VA, 36VDC	1	No	17765.00
	ELEC-13.1.2	Supply, Transportation and installation of -----true on line UPS system IGBT technology pure sine wave out put, with double conversion with auto and manual static by pass switch single phase input / Single phase output. Makes: Numeric / Emerson / Fuji Electric			
2310	a	2.0KVA , 72VDC / 96V DC	1	No	29072.00
2311	b	3.0KVA, 72VDC / 96V DC	1	No	39135.00
2312	c	5.0KVA, 192 / 240V DC	1	No	67795.00
2313	d	7.5KVA, 192 / 240V DC	1	No	93925.00
2314	e	10KVA, 192 / 240V DC	1	No	109579.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-13.1.3	Supply, Transportation and installation of ----- on line UPS system IGBT based rectifier with input power factor correction with isolation transformers double conversion, SNMP controls, LCD display, Pure sine wave out put, with auto static switch three phase input / Single phase output with warranty up to three years.Makes: APC / Numeric / Emerson / Fuji Electric			
2315	a	10KVA / 360V DC	1	No	235000.00
2316	b	20KVA / 360V DC	1	No	275000.00
		Note : If three phase input and three phase output is necessiated 10% extra cost may be allowed on above rates			
	13.2	UPS BATTERY RACKS AND WIRE LEADS			
	ELEC-13.2.1	Supply and providing of UPS cum battery rack -----			
2317	a	Up to 4 batteries	1	No	1485.00
2318	b	5 to 10 batteries	1	No	2750.00
2319	c	11 to 20 batteries	1	No	5060.00
	ELEC-13.2.2	Supply and fixing of ----- SMF battery including wire leads. Makes : Quanta / Racket / Exide / Amaron.			
2320	a	12V 26 AH	1	No	4301.00
2321	b	12V 42 AH	1	No	7211.00
2322	c	12V 65 AH	1	No	8855.00
2323	d	12V 100 AH	1	No	11132.00
2324	e	12V 120 AH	1	No	12018.00
	ELEC-13.2.3	Supply and fixing of ----- AMF battery including wire leads. Makes : Amar Raja (Power Zone) or Equivalent model of Exide / Panasonic / Gotech.			
2325	a	12V, 120 AH	1	No	12042.00
2326	b	12V, 150 AH	1	No	14548.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	13.3	SERVO STABILIZERS			
	ELEC-13.3.1	Supply and installation of Servo Controlled Air Cooled Voltage Stabilizer with input voltage range 340 - 480 V 3 phase, output voltage 380 / 400 / 415 Volts + / 1%, 3 phase, frequency 50 Hz +/- 6%, unbalancing load, Corrected speed 60 Volts / Sec, Efficiency 97 %, Ambience temperature 45 °C, AC Motor, Continuous duty cycle, Output waveform True production of Input, Indication lamps Mains ON , Output ON, Low Cut Off, High Cut oFF, dligital display to read ll electrical parameters, equipped with soft touch buttons for use of operation, with High and Low Voltage Protection, Single Phase Preventor, Short Circuit Protection, Single Phase Prevention and phase reversal protection etc., complete. Makes : Fuji Electric / Power Inn / Krykard			
2327	a	10 KVA	1	No	55000.00
2328	b	20 KVA	1	No	73700.00
2329	c	25 KVA	1	No	88000.00
2330	d	30 KVA	1	No	99000.00
2331	e	40 KVA	1	No	107800.00
2332	f	45 KVA	1	No	115500.00
2333	g	50 KVA	1	No	148500.00
2334	h	60 KVA	1	No	165000.00
2335	i	75 KVA	1	No	187000.00
2336	j	100 KVA	1	No	247500.00
2337	k	125 KVA	1	No	302500.00
2338	l	150 KVA	1	No	319000.00
2339	m	200 KVA	1	No	445500.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
	ELEC-13.3.2	Supply and installation of Servo Controlled Oil Cooled Voltage Stabilizer with input voltage range 340 - 480 V 3 phase, output voltage 380 / 400 / 415 Volts + / 1%, 3 phase, frequency 50 Hz +/- 6%, unbalancing load, Corrected speed 60 Volts / Sec, Efficiency 97 %, Ambience temperature 45 °C, AC Motor, Continuous duty cycle, Output waveform True production of Input, Indication lamps Mains ON , Output ON, Low Cut Off, High Cut OFF, digital display to read all electrical parameters, equipped with soft touch buttons for use of operation, with High and Low Voltage Protection, Single Phase Preventor, Short Circuit Protection, Single Phase Prevention and phase reversal protection etc., complete. Makes: Fuji Electric / Power Inn / Krykard			
2340	a	20 KVA	1	No	107800.00
2341	b	30 KVA	1	No	159500.00
2342	c	40 KVA	1	No	173800.00
2343	d	45 KVA	1	No	181500.00
2344	e	50 KVA	1	No	192500.00
2345	f	60 KVA	1	No	242000.00
2346	g	75 KVA	1	No	275000.00
2347	h	100 KVA	1	No	363000.00
2348	i	125 KVA	1	No	396000.00
2349	j	150 KVA	1	No	434500.00
2350	k	200 KVA	1	No	544500.00
2351	l	250 KVA	1	No	583000.00
2352	m	300 KVA	1	No	797500.00
2353	n	400 KVA	1	No	852500.00
2354	o	500 KVA	1	No	1017500.00
		SECTION - 14			
	14.1	PUBLIC ADDRESSING SYSTEM			
2355	ELEC-14.1.1	Supply, Installation, Testing and Commissioning of Amplifier 120 W for PA system suitable to operate on 230 V AC / 12 V DC supply etc., complete.(AHUZA / OMEGA or equivalent)	1	No	22869.00
2356	ELEC-14.1.2	Supply, Installation, Testing and Commissioning of 15 W Sound Column etc., complete with connection (AHUZA / OMEGA or equivalent)	1	No	3557.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2357	ELEC-14.1.3	Supply, Installation, Testing and Commissioning of microphone etc., complete with connections. (AHUZA / OMEGA or equivalent)	1	No	6353.00
2358	ELEC-14.1.4	Supply, Installation, Testing and Commissioning of stand for microphone etc., complete with connections.	1	No	2287.00
2359	ELEC-14.1.5	Supply, Installation, Testing and Commissioning of Table stand for microphone etc., complete with connections.	1	No	1525.00
2360	ELEC-14.1.6	Supply, Installation, Testing and Commissioning of 2 core shielded microphone cable etc., complete with connections	1	Mtr	172.00
		Supply, Installation, Testing and Commissioning of -----Sq mm speaker cable etc., complete with connections			
2361	ELEC-14.1.7	0.5 Sq mm	1	Mtr	45.00
2362	ELEC-14.1.8	0.75 Sq mm	1	Mtr	58.00
2363	ELEC-14.1.9	1.0 Sq mm	1	Mtr	64.00
2364	ELEC-14.1.10	1.5 Sq mm	1	Mtr	84.00
		SECTION - 15			
		LIFTS			
	15.1	Passenger / Goods Gearless & Machine Room less Lifts			
	ELEC-15.1.1	Supply, transportation, installation, testing and commissioning of _____ passenger / Goods Gearless & Machine Room less elevator with following specifications with connected minor civil works required for installation of Lift including all accessories, scaffolding, required channels, loading and unloading of materials etc, including comprehensive maintenance of lifts during the defect liability period. Makes: Schindler / Kone / OTIS / Mitsubishi or equivalent			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Specifications: a)Type : Machine room less b)Pit Depth :1500 mm or as per NBC c) Minimum Floor to Floor Height (Required) : As per Standard d)Travel height : 3.6 to 4.0mtrs e)Head room Height : 4.5mtrs f)Lintel Height (Required) : 2240mm from finished floor level +/- 10% g)Number of persons : --- P h)Rated Load : --- Kgs i)Number of Stops : --- j)Number of Access sides : 1 k)Floor Designations : G, 1, 2, ...			
		l)Drive Sytem : Alternating current, Voltage Frequency Drive (ACVF). m)Type of Controller : Fully collective control - Simplex / Duplex as per the site condition. n)Speed of Travel : m/s o)Car size : As per Standard p)Door width : 800/ 900/1000mm or As per Standard q)Door Height : 2000 mm or as per standard r)Rated output motor : as per standard s)Car Design : Car walls finish in Stainless stell hairline finish LED spot in ceiling. t)Car Doors : stainless steel hairline finish. Granite Flooring finish in Black sea. Deco ceiling finish in stainless steel Hairline. Full Height mirror on rear car panel.			
		u)Car Operating Panel : Mechanical push button.Door open/close and alarm buttons / Touch panel or equivalent, Visual call confirmation, Car position Indicator, Pre-announcing arrows for collective controls, 16 Segment displayv)Landing Doors : Fully automatic landing doors with stainless steel hairline finish. Center Opening or Side Opening as per the site condition			

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		w)Special Features : Closed loop control system Self Diagnostic control Overload detection Automatic evacuation to nearest floor(ARD) Light curtain on car entrance Alarm Horn Fire Switch Handrail in stainless steel finish on rear wall Auto Fan off Auto light off Intercom-3way			
2365	a	6 passenger, G+3, 1.0m/s	1	No	1369500.00
2366	b	8 passenger, G+3, 1.0m/s	1	No	1511700.00
2367	c	10 passenger, G+3, 1.0m/s	1	No	1592000.00
2368	d	13 passenger, G+3 1.0m/s	1	No	1768600.00
		Note 1 : Further, increase in floor for the above, rate per floor @ Rs. 1,00,000/- to be added			
		Note 2 : If building is above 5 floors, speed 1.5 - 1.75 Mtr / Sec. Further, for increase in speed of the motor, floor for the above, Rs. 1,50,000/- to be added			
2369	e	15/16 passenger, G+3 1.0m/s	1	No	1967600.00
2370	f	15/16 passenger, G+3 Bed cum / passenger, 1.0m/s	1	No	2062900.00
2371	g	20 passenger, G+3 1.0m/s	1	No	2836926.00
2372	h	20 passenger, G+3 Bed cum / passenger, 1.0m/s	1	No	3099330.00
2373	i	26 passenger, G+3 1.0m/s	1	No	3510000.00
		Note 1 : Further, increase in floor for the above, rate per floor @ Rs. 1,25,000/- to be added			
		Note 2 : If building is above 5 floors, speed 1.5 - 1.75 Mtr / Sec. Further, for increase in speed of the motor, floor for the above, Rs. 1,50,000/- to be added			
		Note 3 : If building is above 10 floors, speed 2.5 Mtr / Sec. Further, for increase in speed of the motor, floor for the above, Rs. 2,50,000/- to be added			
		Goods Lift			
2374	j	1000Kgs 2 stops 1.0m/s	1	No	2680650.00
2375	k	2000Kgs 2 stops 1.0m/s	1	No	3732750.00
2376	l	3000Kgs 2 stops 1.0m/s	1	No	4637850.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
		Note 1 : Further, increase in floor for the above, rate per floor @ Rs. 1,00,000/- to be added			
		NOTE 2 : Add extra Rs.1,00,000/- for Honeycomb / Moon Rock SS car finish.			
		NOTE 3 : Add Rs.20,000/- for each floor door finish of Honeycomb / Moon Rock SS car finish.			
		NOTE 4 : For Vision panel add extra Rs.40,000/- for each floor i.e., for 10 - 16 Passenger.			
		Comprehensive Maintenance of Lifts			
	ELEC-15.1.2	Comprehensive annual maintenance and monthly servicing of Lift and also attending periodical breakdown calls including repairs, replacement of wornout parts and keeping the lift in working condition at all times.			
		NOTE 1 : All the comprehensive maintenance after defect liability period of the passenger / goods lift / strecher lift / bed lift having various capacities / various speeds as per OEM guide lines and maintenance manual including car with all accessories, hoist way accessories but excluding diffused ARD battery bank system. Rate per year : 3.0 % of the lift cost upto G + 3 Floors			
		NOTE 2 : If the number of floors exceeds more than 4 floors, add Rs.350/- per month per floor.			
		SECTION - 16			
		OLD MATERIAL RATES			
	ELEC-16.1.1	Dismantled Material			
2377	a	PVC insulated alluminium cables and wires	1	Kg	13.00
2378	b	PVC insulated copper cables and wires	1	Kg	58.00
2379	c	Alluminium Materials	1	Kg	71.00
2380	d	MS / Iron poles, angle etc	1	Kg	29.00
2381	e	Copper/Brass materials	1	Kg	162.00
2382	f	PVC pipe/PVC materials.	1	Kg	6.00
2383	g	IC switches/DBs/Feeder pillars.	1	No	15.00
2384	h	All types of Ammeter/Voltmeter / any meter	1	No	29.00
2385	i	All types of ACBs/OCBs/VCBs LT	1	No	1502.00
2386	j	All types of ceiling fans/cabin fans/Bracket fans and pedastal fans etc.	1	No	173.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2387	k	All type Tube light fittings/MV/SV/MH fittings.	1	No	24.00
2388	l	All types of Air circulators/Pedastal Type Air Circulators	1	No	578.00
2389	m	All types chokes/condensors/Motor starters	1	Kg	20.00
2390	n	Lift ropes/belt types	1	Kg	23.00
2391	o	All types of electric Motors	1	HP	393.00
2392	p	All types of water pumpsets	1	HP	393.00
2393	q	All types of compressors	1	HP	578.00
2394	r	All Types of AC units (window)	1	No	2079.00
2395	s	All Types of AC units (Split ACs) ODU	1	No	2668.00
2396	t	All Types of Indoor units of Split Acs	1	No	924.00
2397	u	Copper piping of Acs	1	Kg	156.00
2398	v	water cooler instant type	1	No	1040.00
2399	w	Water cooler storage type	1	Ltr	46.00
2400	x	Refrigerator upto 165 Ltr	1	No	1677.00
2401	y	Refrigerator above 165 Ltr	1	No	2310.00
2402	z	Exhaust fans 9"	1	No	173.00
2403	aa	Exhaust fans 12"	1	No	231.00
2404	ab	Exhaust fan 15"	1	No	381.00
2405	ac	Exhaust fan 18"	1	No	462.00
2406	ad	Exhaust Fan 24"	1	No	578.00
2407	ae	Air cooler of any size without fan	1	No	578.00
2408	af	Air cooler of any size with fan	1	No	924.00
2409	ag	Transformer Oil	1	Ltr	6.00
2410	ah	DG Set	1	KVA	578.00
2411	ai	Transformer	1	KVA	231.00
2412	aj	EPABX system	1	No	924.00
2413	ak	Telephone instrument	1	No	58.00
2414	al	Water Purifier	1	No	92.00
2415	am	Invertor/UPS	1	KVA	116.00
2416	an	Voltage stabilizer	1	KVA	116.00
2417	ao	Amplifier small	1	No	462.00
2418	ap	Amplifier Big	1	No	520.00
2419	aq	Mikes	1	No	81.00
		Note: Rates of items which are not covered under above List should be caluclated on the basis of materials / equipments considering its site condition and prevailing market rates and approval should be taken from the concerned Superintending Engineer(Electrical)			
	ELEC-16.1.2	Dismantling Rates			
2420	a	Dismantling the existing ceiling fan / exhaust fan / cabin fan for clearing the site.	1	No	19.00

SL. NO.	ITEM CODE	DESCRIPTION OF ITEM	Unit		Scheduled Rate
2421	b	Dismantling the existing steel pole / RS joist pole / Girder with bracket clamps, insulators or stay from the cement concrete foundation clearing the site, refilling the pit etc.	1	No	404.00
2422	c	Dismantling the existing tubelight / SV lamp / MV lamp and making the site clear.	1	No	19.00
2423	d	Dismantling the existing geyser and making the site clear.	1	No	58.00
2424	e	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site duly removing the gutties and refilling the holes with cement mortar and painting with match colour of wall and ceiling.	1	No	23.00
2425	f	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site.	1	No	12.00
2426	g	Dismantling the existing armoured / unarmoured cable, single / multi core cable of sub main, main circuit of any system of wiring including coiling.	1	Mtr	8.00
2427	h	Dismantling the existing armoured / unarmoured under ground cable.	1	Mtr	16.00
2428	i	Dismantling the DBs and TPN switches	1	No	23.00

SECTION - 16**OLD MATERIAL RATES**

Sl.No	ELEC-16.1.1	Dismantled Material			
2377	a	PVC insulated alluminium cables and wires	1	Kg	13.00
2378	b	PVC insulated copper cables and wires	1	Kg	58.00
2379	c	Alluminium Materials	1	Kg	71.00
2380	d	MS / Iron poles, angle etc	1	Kg	29.00
2381	e	Copper/Brass materials	1	Kg	162.00
2382	f	PVC pipe/PVC materials.	1	Kg	6.00
2383	g	IC switches/DBs/Feeder pillars.	1	No	15.00
2384	h	All types of Ammeter/Voltmeter / any meter	1	No	29.00
2385	i	All types of ACBs/OCBs/VCBs LT	1	No	1502.00
2386	j	All types of ceiling fans/cabin fans/Bracket fans and pedastal fans etc.	1	No	173.00
2387	k	All type Tube light fittings/MV/SV/MH fittings.	1	No	24.00
2388	l	All types of Air circulators/Pedastal Type Air Circulators	1	No	578.00
2389	m	All types chokes/condensors/Motor starters	1	Kg	20.00
2390	n	Lift ropes/belt types	1	Kg	23.00
2391	o	All types of electric Motors	1	HP	393.00
2392	p	All types of water pumpsets	1	HP	393.00
2393	q	All types of compressors	1	HP	578.00
2394	r	All Types of AC units (window)	1	No	2079.00
2395	s	All Types of AC units (Split ACs) ODU	1	No	2668.00
2396	t	All Types of Indoor units of Split Acs	1	No	924.00
2397	u	Copper piping of Acs	1	Kg	156.00
2398	v	water cooler instant type	1	No	1040.00
2399	w	Water cooler storage type	1	Ltr	46.00
2400	x	Refrigerator upto 165 Ltr	1	No	1677.00
2401	y	Refrigerator above 165 Ltr	1	No	2310.00
2402	z	Exhaust fans 9"	1	No	173.00
2403	aa	Exhaust fans 12"	1	No	231.00
2404	ab	Exhaust fan 15"	1	No	381.00
2405	ac	Exhaust fan 18"	1	No	462.00
2406	ad	Exhaust Fan 24"	1	No	578.00
2407	ae	Air cooler of any size without fan	1	No	578.00
2408	af	Air cooler of any size with fan	1	No	924.00
2409	ag	Transformer Oil	1	Ltr	6.00
2410	ah	DG Set	1	KVA	578.00
2411	ai	Transformer	1	KVA	231.00
2412	aj	EPABX system	1	No	924.00
2413	ak	Telephone instrument	1	No	58.00
2414	al	Water Purifier	1	No	92.00
2415	am	Invertor/UPS	1	KVA	116.00
2416	an	Voltage stabilizer	1	KVA	116.00
2417	ao	Amplifier small	1	No	462.00
2418	ap	Amplifier Big	1	No	520.00
2419	aq	Mikes	1	No	81.00

		Note: Rates of items which are not covered under above List should be calculated on the basis of materials / equipments considering its site condition and prevailing market rates and approval should be taken from the concerned Superintending Engineer(Electrical)			
	ELEC-16.1.2	Dismantling Rates			
2420	a	Dismantling the existing ceiling fan / exhaust fan / cabin fan for clearing the site.	1	No	19.00
2421	b	Dismantling the existing steel pole / RS joist pole / Girder with bracket clamps, insulators or stay from the cement concrete foundation clearing the site, refilling the pit etc.	1	No	404.00
2422	c	Dismantling the existing tubelight / SV lamp / MV lamp and making the site clear.	1	No	19.00
2423	d	Dismantling the existing geyser and making the site clear.	1	No	58.00
2424	e	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site duly removing the gutties and refilling the holes with cement mortar and painting with match colour of wall and ceiling.	1	No	23.00
2425	f	Dismantling Light / Fan / Separate socket wiring with casing / conduit / batten complete with all accessories and clearing the site.	1	No	12.00
2426	g	Dismantling the existing armoured / unarmoured cable, single / multi core cable of sub main, main circuit of any system of wiring including coiling.	1	Mtr	8.00
2427	h	Dismantling the existing armoured / unarmoured under ground cable.	1	Mtr	16.00
2428	i	Dismantling the DBs and TPN switches	1	No	23.00

PART-IV

PUBLIC HEALTH WORKS

PART-IV INDEX

Public Health Works

S.No.	Description	Page No	
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1	Labour Rates & PH Items	540	579
2	Materials	580	661
3	Operation & Maintenance	662	668

Sl. No.	Description	Unit	Scheduled Rate
1	2	3	4
1	RATES OF LABOUR		
	1. Caulkar	Per Day	As per Labour rates of SoR
	2. Plumber 1st Class	Per Day	
	3. Plumber 2nd Class	Per Day	
	4. Sewer Cleaner	Per Day	
	5. Well Sinker	Per Day	
	6. Pipe line Fitter 1st Class	Per Day	
	7. Pipe line Fitter 2nd Class	Per Day	
	8. Pump Operator	Per Day	
	9. Bore Mechanic	Per Day	
	10. Light Vehicle Driver	Per Day	
	Note:The rate at relevant item in common SoR is applicable for occasional employment.		
2	RATES FOR EARTH WORK :		
a.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is more than 1.5 times the width.		To follow the relevant items of Irrigation work items as per Standard data
b.	Earth work excavation in all types soils for pipe lines, for drainage and water supply, where the depth is less than 1.5 times the width.		
c.	Earth work excavation in all types soils for open trenches, for valve pits, inspection chambers, etc.		
3.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is more than 1.5 times the width, in places where there is no habitation.		To follow the relevant items of Irrigation work items as per Standard data
a.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
b.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
c.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is 1.5 times or more than the width.		
d.	Cutting rock for pipe line trenches by hammers, knuckles and chisels including stacking where the depth is less than 1.5 times the width.		
e.	Cutting rock for works other than pipe lines trenches by hammers, knuckles and chisels including stacking.		
f.	For controlled blasting at restricted places		
	NOTE:- Rock should be measured in solids. In case it is not possible, stacks should be made in which case 40% for voids to be deducted from the stack measurements.		
4	Loading or unloading materials such as C.I. Pipes, PVC Pipes, AC Pressure Pipes, DI Pipes, SW Pipes, PVC Pipes, A.C/Specials less than 300 mm dia upto 4 m in length including stacking.		

a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
d.	P.V.C. Pipes and fittings	Per Tonne	
5	Loading or unloading materials such as C.I. Pipes, DI pipes, SW pipes, AC pressure pipes & fittings/ specials from 300 mm to 600 mm dia upto 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	Stoneware pipes & Specials	Per Tonne	
6	Loading or unloading materials such as C.I. Pipes, DI pipes, PVC pipes, AC pipes less than 300 mm dia, above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
c.	P.V.C. Pipes and fittings	Per Tonne	
7	Loading or unloading materials such as C.I. Pipes, DI pipes, AC pipes from 300 mm to 600 mm above 4 m in length including stacking.		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	To follow as per Standard data
b.	A.C. Pipes & Specials	Per Tonne	
	Note:- For loading and unloading the above materials at Railway Stations, the rates may be adopted based on the competitive quotations or the hammalae charges if prevailing.		
8.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with s/s ends carefully into trenches and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply (Ref to specifications. BIS No.3114/1994)		
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia	Per Metre	To follow as per Standard data
	1100mm dia	Per Metre	1472.00
	1200mm dia	Per Metre	1686.00

8. b.	Lowering C.I. / D.I. Pipes (all classes) and specials (fittings) with flanged ends carefully into trench and laying them true to alignment and gradient including all sundries but excluding cost and conveyance of pipes from source of supply. (Reference to specifications. BIS No.3114/1994).		
	Diameter of Pipe/Fittings in mm :		
	80mm to 750mm dia		To follow as per Standard data
	800mm dia	Per Metre	705.00
	900mm dia	Per Metre	915.00
	1000mm dia	Per Metre	1189.00
	1100mm dia	Per Metre	1466.00
	1200mm dia	Per Metre	1743.00
9. a.	Jointing CI /DI pipes & fittings with S/S ends including cost of pig lead, Spun yarn and sundries such as cost of fuel for melting lead, filling with water with lead up to 500m and testing to required pressure complete. (Reference to specifications. BIS No.3114/94/12288:1997).		
	Diameter of Pipe/Fittings in mm :		
	80mm to 800mm		To follow as per Standard data
	900mm dia	Each Joint	16194.00
	1000mm dia	Each Joint	18136.00
	1100mm dia	Each Joint	20050.00
	1200mm dia	Each Joint	21935.00
9. b.	Jointing C.I/ D.I. pipes and fittings with rubber gasket (push-on-joint), excluding the cost of the gasket but including all sundries filling with water, with a water lead up to 500m and testing to required pressure, etc. complete (Reference to specifications IS 3114/1994/12888/1997)		
	Diameter of Pipe/Fittings in mm :		
	80mm to 1000mm dia	Each Joint	To follow as per Standard data
	1100mm dia	Each Joint	1163.00
	1200mm dia	Each Joint	1259.00
10	Jointing CI/DI pipes, fittings and valves with flanged ends including cost of jointing materials such as bolts, rubber insertion, white lead including filling with water, with lead up to 500 meters and testing to required pressure complete. (Reference to specifications. BIS No.3114/1994.)		

	Diameter of pipe/Fittings/ valve in mm :		
	80mm to 750mm dia	Each Joint	To follow as per Standard data
	800mm dia	Each Joint	6480.00
	900mm dia	Each Joint	7690.00
	1000mm dia	Each Joint	8903.00
	1100mm dia	Each Joint	10142.00
	1200mm dia	Each Joint	11417.00
11a	Lowering the RCC plain ended pipes carefully into the trench laying them true to alignment and gradient, jointing RCC pipes with Cement joints including curing, the cost of jointing materials i.e., Cement Mortar (1:1.5), hemp yarn etc., and testing including filling with water with a water lead upto 500 metres as per BIS No.783/85.		
	Dia in mm	Per Metre	
	80	Per Metre	84.00
	100	Per Metre	115.00
	150	Per Metre	173.00
	200	Per Metre	231.00
	250	Per Metre	288.00
	300	Per Metre	353.00
	350	Per Metre	412.00
	400	Per Metre	470.00
	450	Per Metre	530.00
	500	Per Metre	588.00
	600	Per Metre	706.00
	700	Per Metre	823.00
	800	Per Metre	941.00
	900	Per Metre	1057.00
	1000	Per Metre	1174.00
	1100	Per Metre	1293.00
	1200	Per Metre	1412.00
	1400	Per Metre	1647.00
	1600	Per Metre	1882.00
	1800	Per Metre	2117.00
11b	Lowering the RCC S/S pipes carefully into the ready made trenches laying them true to alignment and gradient, jointing with rubber rings and testing including filling with water lead upto 500 meters excluding cost of rubber rings as per BIS No. 783/1985.		
	80mm to 600mm	Per Metre	To follow as per Standard data
	700mm dia	Per Metre	462.00
	800mm dia	Per Metre	553.00

	900mm dia	Per Metre	663.00
	1000mm dia	Per Metre	793.00
12	Lowering and Jointing G.I. pipes and specials / fittings including excavation of trench of 0.5m width and 0.50 m depth in all soils except rock requiring blasting and refilling trenches after laying and jointing pipes and also including cost of jointing materials but excluding the cost of pipes. Reference to specifications. BIS No.783/85		
a	G.I. Pipes :Dia in mm		
	15mm to 150mm	Per Metre	To follow as per Standard data
12b	Lowering, Laying, jointing of PVC/HDPE/MDPE pipes as per BIS No.7634 part-III/75 for PVC and BIS No.7634 part-II/75 for HDPE pipes including earth work excavation, testing to hydraulic test pressure including cost of water with a water lead of 500m etc., complete, but excluding road cutting (BT/CC) charges., Complete.		
	Dia (OD) in mm		
	20mm dia	Per Metre	45.00
	25mm dia	Per Metre	46.00
	32mm dia	Per Metre	51.00
	40mm dia	Per Metre	51.00
	50mm dia	Per Metre	51.00
	(ii) If the depth of excavation is more than 0.6 m separate rates to be worked out. The above rates are excluding road cutting if any.		
13	Lowering and laying in ready made trench true to alignment and gradient, jointing, and testing of Stone ware pipes including cost of jointing material such as Cement Mortar (1:1) proportion and hemp yarn but excluding cost and conveyance of pipe. (Reference to specifications BIS No. 6530/72)		
	Dia of Pipes in mm.		
	100mm to 450mm	Per Metre	To follow as per Standard data
14	Lowering, laying, jointing and testing to hydraulic test pressure including cost of water with minimum water lead of 500m for UPVC pressure pipes in ready made trenches true to alignment and gradient including all sundries but excluding cost & conveyance of pipes from source of supply and jointing materials as per BIS No. 7634 - Part III - 1975.		
	Dia of Pipes in mm.		
	63mm to 315mm	Per Metre	To follow as per Standard data
15	Laying and jointing of HDPE pipes in ready made trench by butt fusion welding as per IS:7634 - part-II/1975 as amended from time to time to the alignment and gradient and testing the pipeline to the required pressure.		

	Outer Dia of pipes in mm		
	63mm dia OD	Per Metre	46.00
	75mm dia OD	Per Metre	50.00
	90mm dia OD	Per Metre	59.00
	110mm dia OD	Per Metre	72.00
	125mm dia OD	Per Metre	86.00
	140mm dia OD	Per Metre	92.00
	160mm dia OD	Per Metre	99.00
	180mm dia OD	Per Metre	108.00
	200mm dia OD	Per Metre	117.00
	225mm dia OD	Per Metre	132.00
	250mm dia OD	Per Metre	139.00
	280mm dia OD	Per Metre	152.00
	315mm dia OD	Per Metre	237.00
	355mm dia OD	Per Metre	263.00
	400mm dia OD	Per Metre	293.00
	450mm dia OD	Per Metre	325.00
16	Lowering, keeping in position and fixing C.I / D.I sluice valves (with cap / with hand wheel & Reflex valves) excluding cost of bolts, nuts, rubber insertion, sluice valve and tail pieces		To follow as per Standard data
	Dia of Valve in mm.		
	80mm to 600mm	Each	
17	Labour charges for fixing Air valves including boring the mains and threading the bore fixing nipple etc., complete.		
	Dia of Air valve in mm.		
	25mm dia	Each	To follow as per Standard data
	40mm dia	Each	
	50mm dia	Each	248.00
	80mm dia	Each	266.00
18	Labour charges for fixing Kinetic Air Valves with isolating Sluice valves, Double Air valves/ Air Cushion valve excluding cost of jointing materials such as bolts, nuts and rubber insertions etc., complete.		
	Dia of Air valve in mm.		
	80mm dia (Double Air valves)	Each	331.00
	100mm dia (Double Air valves)	Each	386.00
	125mm dia (Double Air valves)	Each	573.00
	150mm dia (Double Air valves)	Each	627.00
	200mm dia (Double Air valves)	Each	683.00
19	Uprooting C.I./ DI Pipes by melting the lead, loosening the joints, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earth work excavation and refilling.		
	80mm to 600mm	Per Metre	To follow as per Standard data
20	Uprooting of RCC pipes including breaking the collars, loosening the joint, separating the pipes, hoisting and keeping within a lead of 10 m but excluding earthwork excavation and refilling.		

	100mm to 300mm	Per Metre	To follow as per Standard data
21	Removing old G.I. pipes and specials / fittings and cleaning, scraping the pipes, hoisting and keeping with in 50m lead but excluding earth work excavation of trenches and refilling.		
	Dia of Pipes in mm		
	15mm to 50mm	Per Metre	To follow as per Standard data
22	Cutting C.I./ DI Pipes without water in mains.		
	Dia of Pipes in mm		
	80mm to 600mm	Each cut	To follow as per Standard data
	700mm dia	Each cut	722.00
	750mm dia	Each cut	779.00
	800mm dia	Each cut	828.00
	900mm dia	Each cut	929.00
	1000mm dia	Each cut	1032.00
	1100mm dia	Each cut	1139.00
	1200mm dia	Each cut	1243.00
23	Cutting A.C. Pipes without water in mains.		
	Dia of Pipes in mm		
	80mm dia	Each cut	43.00
	100mm dia	Each cut	43.00
	125mm dia	Each cut	43.00
	150mm dia	Each cut	43.00
	200mm dia	Each cut	45.00
	250mm dia	Each cut	73.00
	300mm dia	Each cut	73.00
	350mm dia	Each cut	90.00
	400mm dia	Each cut	101.00
	450mm dia	Each cut	124.00
	500mm dia	Each cut	140.00
	600mm dia	Each cut	152.00
24	Drilling and tapping CI/ DI / GI Main and fixing brass screw down ferrule and plug.		
	10 mm to 20mm	Each Tapping	To follow as per Standard data
	25 mm to 40mm	Each Tapping	
25 (a)	Cutting road surface including stacking of excavated materials for pipe line trench work.		
	i) Cutting B.T.Road surface	1 Cum	1150.00
	ii) Cutting C.C.Road Surface	1 Cum	2392.00
	iii) Cutting Water Bound Macadam/Wet Mix Macadam Road.	1 Cum	294.00

25 (b)	Vaccum dewatering of freshly laid cement concrete floor using 100% air tight suction mat of suitable size and length,vaccum pump to maintain vaccum pressure 0.7-0.8 atmosphere as per the standard procedure,floating with power floater,vibrating using Screed vibrator, mechanical trowelling, finishing with sound edges and corners,including hire and operational charges of machinery ,labour,fuel etc,complete for finished item as directed by the Engineer-in-Charge.	1 Sqm	76.00
25 (c)	Mechanical trowelling, finishing with sound edges and corners, including hire and operational charges of machinery, labour, fuel etc, complete for finished item of work as directed by Engineer-in-Charge	1 Sqm	41.00
26	Bailing out water		
	a) Bailing out water from the pipe line trenches with oil engine driven pumpsets, including hire charges, fuel charges and wages for Driver and Helper.	HP-Hour	To follow as per I&CAD SoR
	b) Bailing out water from the pipe line trenches with Electric Driven pumpset including hire charges, current charges and wages for Driver and Helper.	HP-Hour	
27	Shoring and strutting of trenches for water and sewer main.		
	a) Single Staging from (0 to 2.5 Mts.)	1 Sqm of Shoring area	To follow as per Standard data
	b) Double staging from (2.5 m to 4.5 Mts.)	1 Sqm of Shoring area	
28	Barricading, hoarding, lighting and watching etc., for water supply and sewerage works for trenches.	1 RMT	To follow as per Standard data
29	Excavation of trenches for infiltration galleries, syphon lines and connecting mains in all soils under water including all leads, lifts, shoring, strutting, bailing out water and removal of shoring and strutting materials, after completion of pipe line work.		
	a) 0 to 1 m deep under water.	1 Cum	1566.00
	b) 1 to 2 m deep under water.	1 Cum	2242.00
	c) 2 to 5 m deep under water.	1 Cum	3365.00
	d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	1 Cum	643.00
	NOTE:- The above rates do not include rock requiring blasting or chiselling.		
30	Laying and jointing perforated RCC pipes inclusive of bailing out water and jointing with Cement fillets and all other incidental charges for infiltration gallery inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding cost of perforated pipes and collars.	Per Metre	55.00
	per every 25 mm dia/mtr.		
31	Centring and scaffolding charges for RCC members including all materials and labour charges for forming and dismantling.		
a)	for R C C Elevated Service Reservoir of staging up to 15 metre below L W L.		

	1) Slabs for thickness (150 mm to 300 mm)		4672.00
	2) Slabs for thickness above 300 mm, extra for every 50 mm thickness.	One Sqm of Centering area	559.00
	3) Side walls curved surfaces including both sides of wall per Sqm of member area.		3529.00
	4) Side wall straight surfaces including both sides of wall per Sqm of member area.		3143.00
	5) Top dome	One Sqm of Centering area	1923.00
	6) Bottom Dome.		3826.00
	7) Roof Slab.		1056.00
	8) Columns, braces and beams		1575.00
	9) Circular braces, ring beams & circular column.		1728.00
	10) Conical Slab 150 mm to 300 mm thickness		4893.00
	11) Conical Slab for above 300 mm thickness, extra for every 50mm thickness		621.00
	Note:- For RCC ELSR of staging above 15 m, the % increase in these rates shall be as follows. above 15 m - up to 18 m --- 9% above 18 m-up to 21m --- 15% above 21m- up to 24 m --- 21% above 24 m- up to 27m --- 27% above 27m --- 30%		
b)	For Ground level works/ Below the Ground level works :-		
	1) Foundations	1 Cum	To follow as per R&B SoR
	2) Slabs	1 Sqm	
	3) Beams & Lintels	1 Cum	
	4) Sun shades	1 Sqm	
	5) RCC vertical walls of plane surface including both sides of wall per Sqm of member area	1 Sqm of centering area	1305.00
	6) RCC vertical walls of circular faces including both sides of wall per Sqm of member area.		1663.00
	7) Dome		1828.00
	NOTE: The above centering charges are applicable for water retaining structures only.		
c)	Centering and scaffolding charges including labour charges for erection and dismantling of shuttering and scaffolding for CC /RCC side walls of Culverts / Storm water drains /Nalas (where sewage/Sullage flows through them and not for normal / routine nature of drain works)	1 Sqm	428.00
32	Lift or delift of materials :		
	a) Lifting of Cement concrete for RCC Elevated/Ground reservoir. For every 3m height or part thereof over the initial lift of 3 m. Rate/1 Cum.	1 Cum	201.00
	b) Delifting the materials such as stones, concrete etc., for concrete below ground level for construction of ground level reservoirs, inspection wells, test wells and sump wells etc., for every 1 m depth or part thereof beyond the initial depth of 4 meters from ground level. Rate / 1 cum	1 Cum	62.00
33	Labour charges for fixing ventilating shafts complete with all accessories.	Each	To follow as per Standard data

34	Labour charges for fixing water closets including fixing of foot rests (for all sizes).	Each	Relevant Building SoR items
35	Labour charges for fixing of flushing cistern including fixing of flush pipes, lead pipe, jointing etc., complete	Each	
36	Labour charges for fixing wash hand basin including fixing of inlet and waste pipe connections etc., complete	Each	
37	Fixing urinal with inlet and waste pipe connections etc., complete.	Each	
38	Refilling the trench for pipe line with excavated earth including watering and tamping etc., complete	10 Cum	
39 (a)	Extra allowance for isolated scattered works viz., valve pits, public fountains, meter pits and manholes, etc., complete for maintenance works including cost of material.	Each	50% extra over the basic cost of Work.
(b)	Repairs to the existing mains, interconnections, replacement of valves/specials etc., including the cutting, jointing, bailing out of water, drying, earth work excavation etc., complete, but excluding cost of pipes, valves and specials.		150% extra over the basic cost of work
40	Removal of wet silt and sludge from sullage drains, storm water drains with aid of baskets and vessels, etc with initial lift of 3 m and lead of 50 m.	1 Cum	
	Labour component		505.00
	Implements		54.00
41	Well sinking in sandy and other loose soils under water either by manual labour, divers, or dredgers, weighting the top of staining to assist sinking etc., including dewatering and other incidental charges such as hire charges for mechanical equipment etc.,		
	Upto 2 m below GL/m	Per metre	To adopt as per Standard data
	From 2 to 4 m below GL/m	Per metre	
	From 4 to 6 m below GL/m	Per metre	
	From 6 to 8 m below GL/m	Per metre	
	From 8 to 10 m below GL/m	Per metre	
	Note:-Below 10 m for every metre depth or part thereof add Rs.250/- per m. For higher dia, observed data is to be prepared and got approved.		
42	Sinking in Hard strata other than rock but in soils like limestone, gravel, clay under water including, pumping dewatering, hire charges for mechanical equipment etc., complete.		Observed Data
43	Rates for OHSRs/ELSRs including fixtures with a staging of 15m, with seismic analysis Zone -II and excluding Seigniorage charges.		
a	500 Kilo litres	Per litre	19.68
b	1000 Kilo litres	Per litre	15.99
c	1500 Kilo litres	Per litre	14.77
d	2000 Kilo litres	Per litre	13.95
e	2500 Kilo litres	Per litre	13.23

	1) The above rates are arrived with base rate of Cement Rs.5100/- per MT & Steel for Rs.57,000/- per MT (Fe-500/500D/550D from Category-A Steel Producers i.e., SAIL, VSP STEEL, TATA, Jindal Panther) for the month of May-2025		
	2) All concrete components shall be designed with minimum of M30 Design Mix.		
	3) For intermediate capacities proportional rates shall be adopted.		
	4) The foundations shall be designed for Annular Raft Footings. The above rates are applicable for Elevated Level Services Reservoirs / OHSRs for SBC of 15 T/Sqm.		
	a) For every decrease of 2.50 T/Sqm of SBC, the rate shall be increased by 2.5% on basic rate.		
	b) For every increase of 2.5 T/Sqm of SBC, the rate shall be decreased by 1.0% on basic rate up to 20 T/Sqm.		
	c) For SBC below 10T/sqm , solid raft shall be provided and for solid raft the rate shall be increased by 10% on basic rates		
	5) For staging less than 15 m, the rate shall be decreased by Rs.0.05 paise on basic rate per litre per every metre decrease in staging.		
	6) For staging above 15 m, the rate shall be increased by Rs.0.10 paise on basic rate per litre per every metre additional staging.		
	7) The above rates shall be increased / decreased due to increase/decrease in the cost of Cement by Basic rate x (Rc-5100)/5100 x 0.069		
	Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate.		
	8) The above rates shall be increased / decreased due to increase/decrease in the cost of Steel by Basic rate x (Rs-57000)/57000 x 0.135		
	Rs = Rate of Steel (Rs. per MT) (Fe-500/500D/550D from Category-A Steel Producers i.e., SAIL, VSP STEEL, TATA, Jindal Panther) at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	9 a) Rate inclusive of three coats of epoxy paint Food Grade of best quality to inner surface of the Reservoir including roof.		
	b) Rate inclusive of 2 coats of weather proof emulsion painting for external surfaces over one coat of primer of approved make, lettering, all required fixtures, Pipes, Pipe specials, valves of DI material, Valve chambers etc., for pipe connections including cost of pipes, specials and valves as per departmental directions and drawings.		
	10) The above rates adopted for a wind pressure upto "250 kg/sq m". For every 50 kg/sqm decrease in wind pressure, the rate shall be decreased by 2.5%		
	11.a)The Basic rate is adopted by considering the design for Seismic forces for Zone-II only of seismic zones.		
	b) The basic rates shall be increased by 15 % for Zone-III of seismic zones.		
	12. The ELSR/OHSR shall be designed with minimum of two rows of columns for capacities from 500 KL & upto 1000KL.		

	13. The ELSR/OHSR shall be designed with minimum of three rows of columns for capacities above 1000KL.		
	14) The basic rate is inclusive of following fixtures		
	i) Pipe connections & Specials with D.I materials		
	a) All pipe connections for Inlet, Out let (2 Nos), Over Flow, Scour pipes shall be provided with D/F DI material. b) The Valves for above pipe connections also shall be of DI material of PN 16 c) All specials such as Bends, Tees, Puddle pipes, Reducers, Duckfoot Bends, Bell mouths etc., shall be of DI material.		
	II) The sizes of the verticals for ELSR/OHSR shall be:		
	a) For 500 KL to 750 KL ELSRs Inlet Pipe -Not less than 300mm dia. Out let Pipe -Not less than 350mm dia and DI Valves 02 Nos Over Flow pipe-Not less than 350mm dia Scour Pipe -Not less than 200mm dia		
	b) For 800 KL to 1500 KLELSRs Inlet Pipe -Not less than 400mm dia. Out let Pipe -Not less than 450mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 450mm dia Scour Pipe -Not less than 200mm dia		
	c) For above 1500 KL to 2500 KL ELSRs Inlet Pipe -Not less than 400mm dia. Out let Pipe -Not less than 500mm dia and DI Valves 02 Nos Over Flow pipe -Not less than 500mm dia Scour Pipe - Not less than 200mm dia		
	iii) Manhole Frames & Covers		
	a) All man hole Frames & Covers shall be made of CI/DI materials with min. size of 0.60mX 0.60m - For Roof & Valve Chambers.		
	iv) CI/D.I Double Swan neck ventilators (min.of 150mm dia) shall be provided in top dome and slab with mosquito/fly proof nets - 8Nos minimum.		
	v) RCC Finial ventilator with fly/bird protection with Copper or Stainless Steel mesh - 1 No.		
	vi) RCC precast ladders of 0.60 m width - 2 Nos.		
	vii) RCC dog legged stair case of 1.00 m flight width and 1.20 m landing width hand railing of 1.2 m height by using Stainless Steel pipe of grade 304, with top railing of 40mm dia pipe, middle railing of 25mm dia and verticals with 40mm dia at an interval not more than 1.00m c/c. - 1 No		
	viii) The staircase shall be enclosed with brick masonry walls on three side and collapsible MS gate on front side up to 1st brace level, to prevent unauthorized entry.		
	ix) Construction of R.C.C valve chambers as per Standard Drawings with RCC cover slab fixed with CI/DI manhole Frame & Cover with lock and Key arrangement. The Mix shall not be less than VRCC M 20 grade with 150mm thick side walls, 150mm thick top slab, 150mm thick base slab over base course of 100mm thick (1:4:8) prop.		
	x) Balcony of 1.00 m width at floor slab level / middle ring beam level by using Stainless Steel pipe of grade 304 hand railing up to 1.20 m height, with top railing of 40mm dia pipe, middle railing of 25mm dia and verticals with 40mm dia at an interval not more than 1.00m c/c.		

	xi) Water Level Indicator of reputed make - Digital type (1 No) and Conventional type (1 No)		
	xii) Lightning Arrestor with all its accessories complete including earthing, with relevant IS Codes - 1 No.		
44	Rates for OHSRs/ELSRs with a staging of 12 m for Zone-II Seismic and excluding Seigniorage charges.		
a	Upto 10,000 Litres capacity	Per litre	91.19
b	20,000 Litres capacity	Per litre	54.21
c	40,000 Litres capacity	Per litre	43.66
d	60,000 Litres capacity	Per litre	31.10
e	1,00,000 Litres capacity	Per litre	27.50
f	1,20,000 Litres capacity	Per litre	24.04
g	1,50,000 Litres capacity	Per litre	21.84
h	2,00,000 Litres capacity	Per litre	20.60
i	2,50,000 Litres capacity	Per litre	19.99
j	3,00,000 Litres capacity	Per litre	19.33
k	4,00,000 Litres capacity	Per litre	16.89
l	4,50,000 Litres capacity	Per litre	15.06
	NOTE: -1) For intermediate ranges proportional rates may be adopted. All VRCC minimum of M30 grade design mix.		
	2)The above rates are applicable for Elevated Level Services Reservoirs / OHSRs with Raft Foundation and a rate of Rs.5100/- per tonne for Cement and Rs.57000/- per tonne for Steel.(i.e. from Category-A Steel Producers i.e., SAIL, VSP STEEL, TATA, Jindal Panther)		
	3) For every metre of staging less than 12 m, the rate shall be reduced by Rs.0.05 paise per litre per every metre of difference in staging.		
	4) For every metre of staging above 12 m, the rate shall be increase by Rs.0.10 paise per litre per every metre of additional in staging.		
	5)The above rates shall be increased / decreased due to increase / decrease in the cost of Cement by Basic Rate $\times (R_c - 5100) / 5100 \times 0.069$ R_c = Rate of Cement (Rs per MT) at the time of preparation of estimate		
	6)The above rates shall be increased/decreased due to increase / decrease in the cost of Steel by Basic Rate $\times (Rs - 57000) / 57000 \times 0.135$ Rs = Rate of Steel (Rs per MT) (Fe-500/500D/550D from Category-A Steel Producers i.e., SAIL, VSP STEEL, TATA, Jindal Panther)at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	7) Rate inclusive of three coats of food grade epoxy paint to inner surface of the reservoir including roof dome.		
	8) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of weather proof emulsion painting for external surfaces over one coat of primer of approved make, lettering, all required fixtures, pipes, bends, valves etc., for pipe connections but excluding cost of pipes, bends and valves as per departmental designs and drawings.		

	9) The above rates are applicable for wind pressures upto 250 kg / sq m. For decrease in wind pressure the rate has to be decreased by 2.5% per every 50 kg/sqm. If the ELSR / OHSR is to be designed for seismic forces also, cost shall be arrived by working out detailed quantities based on the designs.		
	10) For Tribal/Agency area, the above rates shall be increased by 5%.		
	11) If the ELSR is to be designed for seismic forces a) The above rates are applied upto Zone-II earth quake. b) for Zone-III earth quake the above rates are to be increased by 15%.		
	12) Fixtures include :		
	a) RCC or Aluminium ladder inside 0.60 m wide.		
	b) spiral staircase on the outside shall be provided upto 200KL ELSR. Above 200KL ELSR Capacity dog legged staircase shall be provided with staircase flight width of 1.0mts and landing width of 1.20m. S.S railing to stair case upto 1.2m height.		
	c) Lightning arrestor, including conductor and earthing etc with relevant IS codes.		
	d) RCC ventilators with copper or stainless Steel fly proof mesh.		
	e) D.I Manholes frame and cover 0.60x0.60 m as per IS specifications (light duty) - 2 Nos.		
	f) Water level indicator of good quality with ebonite/ copper float approved pattern - 1 No.		
	g) The ladder shall be with Aluminium and Verticals with HDPE of 10kg/Sqcm shall be provided for single column OHSRs only.		
	h) The increase in staging shall be at 1.0mt interval.		
	i)The railing provided to the gallery and stair case shall be with stainless Steel of grade 304 for a height of 1.20m.		
	j) The dog legged staircase shall be enclosed with brick/CRS wall on three sides and front side with PVC door of standard make up to 1st brace level from ground level to prevent unauthorized entry.		
	k) D.I swan neck ventilators shall be provided in top dome and slab-4Nos minimum.		
	l) The above rates are exclusive of all inlet, outlet connections, valves and bolts & nuts but including labour charges for hoisting, jointing with rubber insertion, nuts and bolts. All valves near inlet, outlet and for scour of ELSRs shall be D.I valves.		
45	Construction of Rapid Gravity Filtration Plant including all Civil, Mechanical and Electrical works using sand as filter media, duly following relevant IS codes in the design of plant components including trial running for 90 days etc., complete and excluding Seigniorage charges.		
	1) 2.0 MLD	Per litre	5.25
	2) 5.0 MLD	Per litre	4.19
	3) 10.0 MLD	Per litre	3.58
	4) 20.0 MLD	Per litre	3.07
	5) 30.00 MLD and above.	Per litre	2.71
	NOTE :-		
	a) For intermediate capacities proportional rates may be adopted		

	b) The above rates are applicable with Cement @ rate of Rs.5100/- MT and Steel of Rs.57,000/MT (Fe-500/500D/550D from Category-A Steel Producers i.e., SAIL, VSP STEEL, TATA, Jindal Panther)		
	c)The above rates shall be increased / decreased due to increase / decrease in the cost of Cement by Basic Rate x (Rc-5100)/5100 x 0.069 Rc = Rate of Cement (Rs per MT) at the time of preparation of estimate only		
	d)The above rates shall be increased / decreased due to increase / decrease in the cost of Steel by Basic Rate x (Rs-57000)/57000 x 0.135 Rs = Rate of Steel (Rs per MT) (Fe-500/500D/550D from Category-A Steel Producers i.e., SAIL, VSP STEEL, TATA, Jindal Panther) at the time of preparation of estimate.		
	The above formula applicable only for preparation of estimate. The price adjustment shall be adopted on the actual consumption of Steel and Cement.		
	Includes Erecting mechanical and electrical equipment, trial run for 90 days 23.50 hours per day testing the treated water for efficient standards and maintenance of records and imparting training to staff.		
	Includes Supply of 6 - Sets of completion plans and maintenance manual and brochures.		
	The components of the filtration plant will include the following		
	A) Civil Works (All works of VRCC minimum of M30 design mix)		
	1) Stilling Chamber including Aeration cascade		
	2) Pre-Settling tank shall be provided for 30 MLD and above capacities of WTP for a minimum of 1 hour capacity.		
	3) Raw water channel with stilling chamber of 1 minute retention capacity with Stainless Steel Weir of SS304L Grade material/Parshall flume and also with digital flow meter.		
	4) Flash Mixer chamber with 1 minute retention capacity with Flash mixing arrangements including SS shaft & SS Blades with gear wheel arrangements etc, Using 304L Grade Steel.		
	5) Clariflocculator / Flocculation tanks with minimum of 4 Flocculators with the components of central driven circular clarifier with scrapper & bridge arrangements made with Stainless Steel Grade 304 L tubes /angulars for durability & chemical resistant with wheel arrangements etc,. Since the Diameter of CFL is restricted, it shall not exceed 40 Metres. Minimum of 2 CFLs are required for WTPs more than 55 MLD, 3 CFLs for more than 110 MLD and so on.		
	6) Filter house, Chemical house, Alum/PAC store, Laboratory room , Chlorination plant room, toilet etc. (All structures shall be provided with RCC roof only).Chemical house & Chlorinator rooms are to be isolated.		
	7) Wash water tank of sufficient capacity to back wash 2 beds simultaneously @ 600LPM/Sqm shall be constructed independently. Receiving 2 beds shall have independent inlets and outlets		
	8) All the Doors and Windows shall be of UPVC. The entrance door shall be minimum size of 2.40 X 2.40 mts.		

	9) All pipes and valves in Plant shall be of D.I. materials. All the Connecting pipes of the plant components such as from Flash mixer to Clariflocculator/ Clarifier/Flocculation tank, to Filter beds, sludge disposal pipes shall be of D.I. material. The size of sludge disposal pipe shall be minimum of 450 mm dia with D.I D/F pipe. Valves with actuators shall be provided for all WTPs of 10 MLD and above.		
	10) The Pipe gallery way for Clear water/ Back wash water/ pipe connections shall be sufficiently spaced for easy operation, maintenance and inspection.		
	11) The bottom level of the wash water control chamber must be above G.L so as to dispose the wash water and sludge from Clariflocculator by gravity to disposal point.		
	Additional specifications		
	12) Railing for all the components (Clariflocculator, Filter House, Staircase etc.,) shall be provided with Stainless Steel of grade 304L for a height of 1.00m, with 50mm dia pipe for top horizontals, 25mm dia for middle three rows and 40mm dia verticals spaced at interval of not more than 1.00m c/c. Access shall be provided by means of stair cases located in the middle and at opposite ends of each gallery		
	13) Inspection / Path ways in filter beds: Middle pathway: Minimum of 1.50m, Side pathway: Minimum of 1.20m.		
	14) Flooring in the buildings (Filter house, Chemical House, Chlorinator Room, Laboratory) shall be provided with Non-skid tiles of approved make & quality, as per standard specifications. Dadoing with acid resistant tiles to the solution dissolving trays and solution tanks shall be provided upto 1.80mts from floor level in chemical room and Chlorination room.		
	15) The basement of the Filtration plant building shall be minimum of 0.75m above the existing nearby Road top level. 5T EOT in filter gallery shall be provided for all WTPs of 10 MLD and above .		
	16) Minimum head room of 2.00m shall be provided, at the alum/PAC mixing chambers in alum /PAC store for inspection & maintenance.		
	17) The minimum width of entrance hall for the Filter House shall be 4.50m, and Laboratory of min size .of 3.30 X 4.50m .		
	18) High efficient Air Blowers of standard make shall be installed to the design requirement with low noise pollution, environmental pollution as per PCB guide lines & Testing of blowers as per I.S norms at site.		
	19) UPVC of 10 kgf pipes shall be provided for water drain. Filter pipe manifolds shall be assembled with HDPE pipes.		
	20) Alum/PAC storage capacity shall be designed for minimum period of 90 days. Consumables shall be provided for 2115 Running Hours of WTP.		

21A) Chlorinator: Vacuum type chlorinator shall be provided with following specifications: a) Vacuum operated solution feed type Vacuum Regulator, Rotameter, Rate setting Valve, built-in NRV, Gas Overflow out let by manifolding to mount the system with the unit. b) The unit shall consists of Ejector with necessary accessories such as Check Valve, Drain Valve and Vacuum relief Valves - for control of chlorinator dosage. c) The Accessories and manifolds shall be chlorine resistant and made of high carbon Steel seamless pipes, copper tube with brass fittings of suitable size & dimensions, with diaphragm sealed chlorine pressure gauge arrangements.		
d) Water Booster Pump of pumping capacity ranging from 2 cum/hr to 12 cum/hr, with Head ranging from 16 to 35 MWC e) The water & solution carrying pipes shall be made of UPVC material of suitable size incl. all specials such as Tee's, Bends, couplings & NRVs and also Pressure Gauges of suitable range. f) Chlorine Gas detector with alarm indicator. The installation includes all necessary accessories, Civil and Mechanical works, manifold header installations, injector fixing, connection with UPVC pipes, solution pipings, fixing of motors as per standard specifications and commissioning of Chlorination plant to the required demand, with a warranty period of 5 year. The chlorinator may be of any reputed make or any make of Metito/Toshocow-Jesco/Industrial devices. Chlorine tonners shall be provided for 60 days running of WTP. Dosing room and drum hall must be isolated in the same building without internal access.		
g) Life breathing operators.		
h) Chlorine escape BA Set.*Suitable prechlorination systems shall also be provided separately.		
i) 2 to 10 MLD Plants - 1Kg/hr Chlorinator Rate .073 paisa on basic rate of WTP-for Post Chlorination		
ii) 10 MLD to 20 MLD Plants - 2 Kg/hr Chlorinator Rate .033 paisa on basic rate of WTP-for Post Chlorination		
iii) 20 MLD to 50 MLD Plants - 5 Kg/hr Chlorinator Rate .015 paisa on basic rate of WTP-for Post Chlorination		
B) Mechanical Equipment		
1) Alum/ PAC dosing equipment with SS 316 material made stirrers & paddles for chemical resistance. (Alum/PAC tanks must be bound with corrosion resistant material (Acid resistance tiles)		
2) Flash mixer equipment with SS 304L material made stirrers & paddles for chemical resistance.		
3) Filtration plant equipment instrumentation and piping.		
4) Clariflocculation equipment (with stainless Steel blades) with rotating bridge arrangement etc., The equipment consists of following components a) Flocculator Drive Mechanisms These will consist of suitable H.P geared electric motor mounted on M S Frame work on bridge platform.		

	b) Flocculating Mechanisms and raking in the flocculation compartment. These will consist of vertical shafts and arms, paddles, guides, bearings etc with stainless Steel bush bearing for the shafts at the bottom. c) Mechanism for raking in clarifier compartment with minimum of 4 flocculators in each CFL.		
	d) Revolving Bridge This will be made of suitable sections with torsion proof fabrication of required length and width of 1.22 m. The Bridge will have an outer travelling trolley. The walk way will be 1.22 m wide and shall have chequered plates. The web of the bridge structure shall perform the function of hand railing on both the sides also. The scarping plates will be fitted with the scrapper frame work with hinges and stainless Steel pins and will be fitted 12 mm thick rubber edging. The scrapers will be so adjusted as to ensure smooth and even scarping of the floor. e) Bridge Drive The Bridge will be driven by an electrically operated geared motor with suitable H.P. Two sets of ON/OFF buttons. one over the bridge and other outside of the walkway		
	f) Bridge Drive Mechanisms This will consist of two nos. of Nylon wheels of dia not less than 300 mm driven by electric geared motor. The wheels will be fitted on the trolley with necessary bearings, pedestals etc. These wheels travel along the periphery of the clariflocculator tank. g) Electrical Arrangements These will consist of electrical cables PVC insulated with copper wires run from the main switch board provided in the chemical store and run under the tank and along the central column. The cable will be connected to the central slip arrangements. The electric geared motors will be controlled from the control panel fitted on the bridge with necessary weather proof housing cabinet with necessary cables, wires, starters, switches etc .		
	5) Nylon wheels shall be provided for the bridge clariflocculator.		
	6) Wash water tank fittings and pumpsets with 100% stand by.		
	7) Air blower with motor 100% stand by and pipe connections. Air Scouring type with twin lobe rotary having required capacity and pressure as per hydraulic design having following components: Blower, Base Frame for blower and motor, Foundation Bolts, Nuts and Washers, Slide Rail and Motor Bolts, V Belts, Pulley, Guard, Suction Silencer, Discharge Silencer, Pressure gauge, Safety Relief Valve and Non Return Valve , Companion Flange, Interconnection Pipe, Flexible Bellow, Safety Valve and T Connection, First Fill of Lubricants, Anti vibration Pads, Acoustic Enclosure and Motor : CGL/KEC/ABB make. Blower room shall have 2 T chain pulley block with overhead I beam		

	A) Materials of Construction: a) Housing : C.I IS 201 FG 260 b) Rotor Shaft : S G IRON c) Shaft : EN 19 forged and heat treated d) Timing Gears : Cast Alloy Steel (20 microns) forged and heat treated. e) Pulley , Gear side , plates and covers : C.I IS 210 FG 260 f) V Belts : Reinforced rubber g) Base plate : MS Enamel Painted h) Belt Guard : MS Enamel Painted i) Fasteners : As per IS 1363/ IS 1367		
	8) Spares & Tools and the same shall be handed over after 5 years defect liability period.		
	9) Gaseous Chlorination with cylinders has to be provided with protection measures.		
	C) Electrical Equipment		
	1) Necessary power supply wiring to motors and switches bus bar connections as per IE Rules.		
	2) Internal wiring and illumination and fittings and fixtures for internal and external lighting exhaust fans, ceiling fans etc.		
	3) All cables shall be with of copper material, Cable ducts shall be covered with MS / Aluminium chequered plate.		
	4) Yard lighting shall be provided at 6 locations with required fixtures..		
	5) Power generator of suitable capacity with generator room shall be provided to run the plant in emergency situations like event of power failure.		
	D) Equipment for Flow measurements		
	1) Equipment for Flow of Conductivity, Turbidity, Ph value, Residual Chlorine with recording & data storage facility (Computer based) & Alarm by SMS or other methods.		
	2) Off - Site Supervisory and Data Acquisition (OSSADA) system for Raw water & Clear water flows by installing Digital Flow meters and Turbidity meters to measure the flow & Turbidity at Raw water Channel and at each filter bed individually and combined for measuring the quantities of water treated with a facility to record and store the readings & also to send messages to the assigned designatories about the variations/ deficiencies in the flow including alerts for back wash requirements of filter beds, and recovery of data for the past 360 days. All the Digital Flow Meters & Pressure Gauges shall be provided of standard approved make.		
	Hardware:		
	i) Wall mounted Sensor House for measuring Raw water & Clear water flow from Filter bed out lets with accessories.		
	ii) Electrode Type: General type, Scraper type or replaceable type Electrode made with material of SS external Ultra Touch Sensors as per requirement.		

	iii) Customised Application Requirement : Sensors with Interface logic control board with serial interfaces, On - sensor Board Buffer, Timer, RS485 Communication, Analog to Digital Sensing Sensor Circuit, 32 Sensors Sensing Tags, Interval Power Supply System , LCD 16c/2L, Filter Bed Working Status Indication LED, Filter Bed Wash Indication Button and memory of Data Storage for 30Days , status of Filter Bed Level indicator, Rating, Reading on LCD Display, Menu Driven Data for sending to Onsite Big Display, operated with Battery Power of any reputed make or any equivalent make.		
	iv) Customised Application Requirement: Power Sensors Interface logic control board with support 8 Power Sensing tags, Central System Interfacing Communication, On - board analog to Digit Convert Integrate Circuit of any reputed make or any equivalent make.		
	v) Customised Application Requirement: Centralized System with two serial interfaces, 3 Nos of Add-On ports, One external DC Power Socket, On - Board Buffer, On - Board Timer, On - Board RS485 Communication, On - Board RS 232 Communication, On - Board GPRS/GSM Module, On - Board Voice Chip, On - Board Power Sensing Module, LCD 16c/2L, Filter Bed Wash Precaution Indication with Stop Button, Memory of Data Storage for 30 Days, Total Bed Rating, Reading display on LCD Display, Menu Driven, Menu Navigate Keypad, sending data to the Web Server, Communication with GPRS , operated with Battery Power of any reputed make or any equivalent make.		
	Software:		
	The software shall be designed with Web Domain with Data Base Server and Web Name as per the directions of the Departmental Authorities		
	The application of Software for Web design & Desktop shall meet the following requirements:		
	Onsite Display: Letters with size of 1.5' Seven Segment LED Display with Interface for each Filter Bed, for Onsite Display, by displaying the Bed Levels, Ratings, Readings in 3 Columns , for each bed of the plant in successive rows and cumulative results at the bottom of the screen.		
	Off Site Display: Letters with size of 1.5' seven Segment LED Display with Interface GPRS/GSM Modules Offsite Display, with Display of Bed Total Rating, Total Cumulative Reading as specified on On-site Display Features.		
	The system shall have also the features of Onsite Bed Wash Voice Precautions for Bed Levels, Readings, Ratings, Bed Capacity Readings and Ratings and Bed Low Level Triggering, before & after Bed wash.		
	The software shall also have the features of sending messages to the mobiles of the Departmental designatories indicating Bed Low Levels, Power Supply timings, Bed Wash timings and its status, Power Supply timings and its status Grid View Table, Motor Working time and its status Grid View Table, all trigger events and schedule information and including all Snap View Reports, all Daily, Monthly, Yearly Reports, all Power Working Reports, all Power Events Information etc.,		

Sewage Treatment plants			
46	Construction of STPs with Sequential Batch Reactor Technology (SBR TECHNOLOGY)		Rs. in Lakhs
A	Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactorily trial run for 3 months of ____ MLD capacity STP with Sequential Batch Reactor (SBR) Technology consisting of Inlet Chamber, Screen Chamber, Grit Chamber, Distribution Chamber and SBR Basins, Sludge Sump, Chlorine Contact Tank/ UV Disinfection, Chlorinator Room/ UV Channel, Sludge Dewatering Equipment, necessary piping work with required valves, gates, drains, pathways, Administration Block cum Laboratory, Laboratory Equipments inclusive of mandatory spare parts and instrumentation, Internal Roads, Pathways, compound wall, Tools and Plants, complete as turnkey job with all involved civil, electrical, instrumentation and mechanical works inclusive of following items, units as per detailed specifications for civil, electrical and mechanical components etc., complete to achieve the norms prescribed by the Hon'ble NGT / CPCB/ TGPCB (pH-5.5 to 9.0, BOD < 10ppm, COD<50 ppm, TSS<20ppm, Total Nitrogen < 10, Total Phosphorous < 1.0, Faecal Coliform (Most Probable Number) < 100) to get recyclable quality of water for industrial/agricultural purposes/ discharge into water bodies as well as land disposal/ applications. The Coagulant Dosing System shall be provided. All units shall be interconnected with administration building by suitable RCC overhead walkways. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
	UNITS INCLUDED:		
A	PRIMARY TREATMENT		
1	Inlet Chamber: Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) inlet chamber for the peak flow as per CPHEEO Manual including necessary excavation in all types of strata (excluding rock) including walkway all around the periphery, Inlet chamber having minimum Hydraulic Retention Time of 60 seconds, each compartment shall be provided with steel gates with extension rod, head stock operating wheels. SS pipe railing etc. including providing and making necessary arrangements to connect the flow to screen chamber by approach channel as per approved drawings and as directed by the Engineer in Charge.		

2	Screen Chamber: Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) 2 Nos. approach channels (min 4.5 m long), mechanically cleaned bar rack screen (6 mm clear opening 10 mm flats). Escalator screens, with 100% standby manual fine screen (10 mm clear opening) MOC SS316, CI sluice gates (one before screen & one after screen) designed as per CPHEEO Manual, including inlet pipe/channel from inlet chamber, outlet pipe/channel to grit chamber, free board of 500mm minimum, RCC walkway 1.2m wide with SS pipe railing. RCC stair case of 1.2 m width from GL to screen chamber with operating platform and belt conveyor system including panel & push bottom switch at local level as well as MCC room for two way control. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
3	Grit Chamber: Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) Grit Chamber - Detritus upto 5 MLD with 100% standby, vortex type / aerated type above 5 MLD with 100% standby, mechanically operated capable of removing 100% of 0.2 mm size particle and above, having specific gravity 2.40, Hydraulic Retention Time of 1 minute at average flow, horizontal velocity not exceeding 0.30 m/sec at peak flow with suitable arrangement of separation of grit from putrescible solids. Inlet and outlet channels of required sizes shall be provided to connect the flow to connecting unit etc. complete including Hydraulic testing for water tightness of structure having minimum Free Board of 300 mm, wash out arrangement to Grit chamber and platform of 1.2 m width, RCC walkway with SS pipe railing shall be provided. A pit for collecting grit conveyed by conveyor shall be provided. It should be suitable to handle the grit for carting. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
4	Parshall flume having head loss limited to 150 mm with necessary flow measuring devices/meter consisting of digital indicator in LPS & MLD		

B	SECONDARY TREATMENT		
5	SBR Basins:Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) SBR basins for biological removal of BOD along with built-in nitrification-de-nitrification. Bio-P removal in compartments to handle combine flow of 1 Dry Weather average incoming flow and recirculation flow including construction of selector compartments and providing 1.2 m wide clear approach walkways with SS Railing, expansion joints wherever necessary, including foundations etc. as per specifications. F/M ratio shall be 0.15, complete with air blowers, fine diffused aeration grid with Fixed type installation equipment and Free board of 500 mm and Side Water Depth as per technology provider. Dissolved Oxygen level in basin to be maintained minimum 2 mg/l complete with "Oxygen Uptake Rate" control system and all related instruments. Stainless steel SS 304 decanters and automation works, MLSS concentrations shall be 3000-6000 mg/l, MLVSS to MLSS ratio shall be 0.6-0.7. HRT shall be minimum of 13.5 hrs and SRT suitable for fully digested sludge. SBR process shall have independent steps like Fill & aeration, Settling (Sedimentation/clarification), Decanting as per the design of the technology provider. Suitable decanting depth shall be provided as per design. The decanting device shall be a rotating moving arm device with top mounted gear box, drive, scum guard, down comers, collection pipe, bearings. The following types of decanter assemblies are not acceptable: Rope Driven Decanters, Floating Decanters, GRP Products, Valve Arrangement. The system should work on a gravity influent condition. No influent/effluent equalization tanks or flash filling is accepted. It should have all other related works. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge. SRT shall be suitably provided to achieve N, P removal. Suitable capacity sludge pumps to be installed in SBR basins for pumping sludge into sludge thickener, wherever required. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

6	Process Air Blowers or Aspirator Aerator: The Plant should be based on Dissolved Oxygen/Oxygen Uptake Rate Control with VFD driven Aeration Device along with acoustic hood. The Aeration System shall be designed for 110 % Capacity of the design Air requirement. The aeration Blower/aeration Device shall be having 50% installed standby unit. Air diffuser shall be of disc/tubular type, fixed. The wetted part of the aeration system of non-corrosive materials such as UPVC (upto 200mm dia) /SS 304 (for dia more than 200mm). The non wetted part of the aeration system shall be of MS material. Blowers shall be housed in process air blower building. The minimum area of building is 20 sq.m, and height of 5m (min). Surface aerators are not acceptable. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
C	DISINFECTION WITH GAS CHLORINATOR OR UV DISINFECTION		
7a	Chlorine Contact Tank: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) Chlorine contact chamber of adequate capacity to deal with 1 DWF average flow. The chlorine contact tank shall be designed for a hydraulic retention time of minimum 30 minutes, during average flow to achieve 99.99% coliform reduction. Chlorine dose shall be maintained as per standard provisions, including designing, providing and constructing water supply provision for chlorination, including providing dewatering and by pass arrangement jointing to final effluent mains and outlet weir etc. complete. The effluent quality shall match with the standards laid down by Hon'ble NGT norms/ CPCB/ TGPCB and as per obligatory provision and as detailed specification. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
7b	Chlorinator and Chlorinator Room/Tonner Room: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) Chlorinator room of required size with 2 Nos. (1 working + 1 stand by) of vacuum type chlorinators with auto switch over facility and having capacity for dosage of adequate chlorine to ensure 99.99% coliform reduction as per obligatory provisions and detailed specifications. The chlorinator equipment shall include cost of chlorine cylinders/tonner, piping, valves, measuring and controlling equipment, safety devices, lifting equipment, etc. complete as per IS -10553 (part II) 1982. The tonner room should have minimum 3 MT capacity Hoist for loading and unloading facility. Tonner storage should be distinctly isolated and should be for minimum storage space as directed in the design specification and as per gas laws 1981 and factory act shall be provided.		

	All other matching amenities shall be provided, Minimum 5 MT gantry rail shall be provided for full length of tonner room at 6 m height from level of tonner room, with outlet chamber and treated effluent outlet channel etc. complete as per detailed specification. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
8a	UV DISINFECTION SYSTEM : Designing, Providing and Installation of a UV disinfection system complete with UV Lamp banks, power distribution centres, System Control Cabinet (CC) with minimum 7” HMI, Level Controller(s), Integrated Lamp bank rack-systems for easy installation and maintenance as required as per the US EPA UV Disinfection Guidance Manual (2006) and IUVA Uniform Protocol for complete disinfection to suit the effluent norms specified above. MoC for submerged components : SS 316 L, For non submerged components and coming in contact with sewage : SS 316, All wiring exposed to UV light shall be rubber coated. Effluent Level Controller: a. Motorized Weir Gate or equivalent. Ultrasonic Water Level Sensor: One low water level sensor for each UV channel, before and after UV. Low Water Level Sensor: One low water level sensor for each UV lamp bank that can shut off the UV lamps in case of water level drops and lamps would be in air. The secondary treated sewage shall be led to UV channel for disinfection. The UV system shall comprise of a complete and operational open channel, gravity flow, ultraviolet (UV) disinfection system. The system shall be complete with UV Lamp (Low Pressure High Output (LPHO) UV Lamps shall be minimum 350 W low pressure amalgam design with minimum UVC efficiency of 50%), electrical cabinets housing the electronic ballasts, power distribution, and system control, UV detection system, automatic mechanical wiping system and water level control device(s) / weir, etc. Suitable outlet arrangement shall be provided to ensure required submergence of UV lamps at all times. The objective of the UV is to disinfect the secondary OR final treated effluent and having minimum 99.99% disinfection efficiency (i.e. 3-Log reduction or better as required to achieve the fecal coliform level as specified in treated sewage outlet quality requirement) for destruction of all coli forms and other pathogenic micro-organisms. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
8b	UV Channel: Channel to be constructed in M30 grade RCC. The inside surface of the UV Channel shall be provided with 20 mm thick water proof plaster in Cement mortar 1:3. The bottom of the tank shall be provided with 50 mm thick screeding. The outside surface shall be provided with 20 mm thick double coat Sand phased plaster in cement mortar 1:3 with paint as per civil specification. Min. 1.2 m walkway on sides and operating platforms as required shall be provided. Min. 1 m high GI/SS handrails shall be provided. An RCC shed with lifting arrangement for UV system as per design shall be provided. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

D	Sludge treatment		
9.1	Sludge Thickner with equipments: Design, construction, testing and commissioning of VRCC M 30 grade sludge thickener-gravity type (picket fence) with Solids loading rate of 25-35 kg/m ² /day with inlet & outlet pipes, central feed well, sludge it & sludge removal arrangement, grouting wherever necessary with walkway all around of 1.20m with SS pipe railing interconnecting DI pipes all complete as per specifications having bottom slope 1:6 & min 4.5m Side Water Depth with necessary fixed bridge scraper arrangement as per detailed specifications & necessary intet & outlet arrangement. All other arrangement as per detailed specifications (Sludge thickener not required for capacity upto 10 MLD, one for more than 10 MLD upto 50 MLD and two units for more than 50 MLD), Min sludge concentration in thickened sludge shall be 5%. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge. MoC for MS frame: Mild Steel Epoxy Coating All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
9.2	Sludge Holding Sump cum pump house: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) sludge sump cum pump house of appropriate size with suitable capacity pump sets, suitable ceiling height over sump for discharging sludge to centrifuge using DI pipe with High Alumina coating complete as per detailed specification. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
9.3	Sludge Dewatering Equipment Room with Centrifuge / belt press / screw press / Filter Press / Combi machine: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) Sludge Dewatering Equipment Room and installation of Centrifuge / belt press / screw press / Filter Press / Combi- machine to handle the sludge flow as per specifications, with appropriate inlet and outlet provision, sludge dewatering unit drain etc. complete as per specifications. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
9.4	Sludge/ filtrate Pumps		
	a) Capacity to pump sludge in 1 hour with 100% standby (20-25% efficiency, "C" value to be adopted 50% than that of water to calculate friction loss)		
	b) Filtrate from thickening and dewatering to be conveyed only by PVC 10 Kg/sq.cm		
10	Valves/gates		
a	Suitable diameter of DI D/F PN 16 shall be provided for Inlet, Outlet, wash water inlet as per approved make/brand.		
b	All types of gauges and meters shall be provided as per the requirement for O&M as per design and specifications of approved make/brand.		
c	Necessary Instrumentation and control as per specifications		

11	Outfall Sewer:Design, construction, testing and commissioning of appropriate outfall sewer of RCC S/S NP3 pipe with High Alumina Coating to discharge treated effluent from outlet chamber after chlorination tank to the disposal point of outlet battery limit of STP including necessary chambers for inspection and cleaning, including necessary excavation, dewatering, refilling, concrete encasing/bedding concrete, steps to reach the disposal/ nallah bed level, pitching and energy dissipation chamber in nallah portion etc. complete up to 100 m length RCC S/S NP3 pipe line and including all above items.All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
12	By pass arrangements: Design, construction, testing and commissioning of suitable capacity of RCC S/S NP3 pipes with High Alumina Coating with manholes and CI sluice gates (MH to be raised above TWL of adjacent unit) All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
13	Piping work in DI K7 Class including DI Sluice valves, DI Reflux Valves, MS Gates: Providing laying and jointing pipes other than those already included in the above items for interconnection by-pass drains etc of all units including adequate numbers of manhole chambers. The item includes excavation, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The items includes required channels with gates for interconnection of units by pass drains etc. for all units as directed etc. complete as per detailed specifications All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
14	Administrative Building cum Laboratory (G+1) (minimum built up area of 100 sqm): Designing, providing and constructing administrative building, office cum Laboratory including stores. This shall be a bulding having appropriate carpet area and ground foor and a first floor complete as per specifications including necessary excavation, foundation, all structural components in VRCC M20 grade, Brick masonry (in CM 1:3) with flyash blocks, outside plastering 20mm thick in 2 coats (16 mm in CM 1:6 and 4 mm in CM 1:4), inside and ceiling plastering 12 mm thick in CM 1:3, inside and outside painting with acrylic emulsion paint 2 coats over primer coat, Aluminium door and window with glass panels, virtified tiles flooring and skirting and all other allied items, fixtures, fastening, electrification arrangement, water supply arrangement etc. complete as per approved drawings and as directed by the Engineer in Charge.		
a	a) Ground floor to accommodate administrative office & laboratory		
b	b) First floor to accommodate Office of the Plant in Charge, air monitoring equipments to measure wind direction & speed, hydrogen sulphide concentration etc.		

c	Laboratory equipments: Laboratory equipment (as per CPHEEO manual/ standard practice)		
d	Beautification, telephone and intercom arrangement and wireless system, Furniture and Office Equipments, Office furniture (Make: Godrej or similar approved quantity) as per specifications/ standard practice		
e	Ventilation and Safety equipments as per standard practice		
15	Sanitary/ Toilet blocks: Carpet area-15 square meter minimum up to 25 MLD and 25 square meter above 25 MLD (or as specified)		
16	Maintenance Workshop of size as per standard practice		
17	Air blower Building with Air Blowers: Capable of delivering adequate free air for aeration device with suitable pressure (50% standby)		
18	MCC Room of suitable size inside with safety measures, approval of various statutory/central/ foreign authority as applicable) shall be executed. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
19	Electric Installation		
19.1	Both internal and external lighting including entire plant area (as specified).		
19.2	Supplying and installation of Transformer of required capacity for all the STP components, wetwell, internal and external lighting along with necessary wiring etc. complete as per standard specifications		
19.3	Redundant PLC SCADA for full automation to be installed for full plant.		
19.4	DG room with DG sets of required capacity for all the STP components, wetwell, internal and external lighting, as per electric load and specifications (50% energy requirement)		
20	General Infrastructure Development: Designing, providing and constructing general infrastructure development such as internal CC roads of minimum 4.5 mtr wide, internal and external lighting, pathways of minimum 1.5 m wide to access at STP units and Entrance Gate in MS etc. all complete as per specifications, approved drawings and directed by Engineer in Charge		
21	Internal roads: Cement Concrete pavements of M30 grade with minimum 3 m internal road and 4.5m for Main road to connect all units from main gate of plot.		

22	Compound Wall as per the plant layout with footings, columns at 3.6m spacing, plinth beam, brick wall with flyash blocks, internal and external plastering, painting with acrylic emulsion paints 2 coats over primer coat, along the boundary of STP site for a minimum length of 150m. If the compound wall length is increased by over 150m, the extra length shall be paid by the department as per actual measurements, specifications. Work shall be executed as per specifications, approved drawings and as directed by the Engineer in Charge. Water retaining wall cost is extra for the site HFL is above ground Level		
23	Green Belt (33% landscaping area) as per standard practice		
24	OCEMS: Supply, Delivery, Installation and Commissioning of Online Continuous Effluent Monitoring System (OCEMS) Instruments measuring the parameters pH, Chemical Oxygen Demand (COD), Total Suspended Solids(TSS), Biological Oxygen Demand (BOD), Residual Chlorine etc. and Smart Controller and Data logger, UPS backup. Flow reading from the existing flow meter and UV reading The specification of the Controllers, Probes/Sensors, Server for centralized data connectivity for the OCEMS, Calibration of OCEMS, OCEMS Function check, Continuous Validation of OCEMS shall be designed, manufactured, constructed and tested in accordance with latest revision of the relevant Standards, CPHEEO manual and in compliance with the latest guidelines for Online Continuous Effluent Monitoring Systems (OCEMS) of CPCB, Hon'ble NGT.		
	NOTES: 1. Fine screens (SS 316) are of mechanically cleaned type for working unit and manual bar screen type (SS316) for standby unit. For STP capacities upto 2 MLD, manual screens shall be considered for working and standby units. 2. Upto 5 MLD Capacity STP chlorination may be done by using sodium hypochlorite solution. Above 5 MLD capacity Disinfection - Gas chlorinator/ UV Disinfection to be provided. 3. The cost of sewage pumping station and rising main is not included 4. Makes of equipment shall be approved by concerned department. 5. Grade of steel used is Fe 500/500D/550D Category-A Steel from major Steel Manufacturers including PSUs with minimum installed Production Capacity above 10 Lakh MT Per annum (SAIL, VSP STEEL, TATA, JINDAL PANTHER) for all components. 6. Sulphate Resistant Cement shall be used for all the water retaining structures. 7. Peak factor shall be considered as 3.00 for contributory population upto 20,000; 2.50 for population above 20,001 to 50,000; 2.25 for population above 50,001 to 7,50,000 and 2.00 for population above 7,50,001.		

	8. The rates mentioned above STP are considering sites falling in Seismic Zone upto II. For sites falling in seismic zone III shall be increased by 3%. 9. SBC considered is 10 t/m². Soil stabilization if required shall be paid extra as per actuals. 10. The agency shall submit detailed designs and drawings for all the components and the same shall be approved by the department concerned prior to grounding the work. 11. Hydraulic design of the plant shall be considered with free fall discharge of treated sewage to local water body (above HFL), Hydraulic loss shall be worked out for peak flow condition and shall not exceed 4.5m in any circumstances unless otherwise site specific condition and approved by the department. 12. Scope includes excavation, refiling and carting away any unwanted material as directed by the Engineer in Charge. 13. All other details shall be as per design criteria and detailed specifications as approved by the Engineer in Charge. 14. QAPof equipment shall be approved by concerned department. 15. Base Rates considered for Ordinary Portland Cement (OPC) is Rs. 5100/MT, Sulphate Resistant Cement (SRC) is Rs. 7000/MT and Category A Steel is Rs. 57,000/MT. These rates shall be considered as base rates for considering Price Variation. However, monthly variation in cement and steel shall not be considered while sanctioning the estimates for this component.		
1	0.5 MLD	Per MLD	288.47
2	1 MLD	Per MLD	234.80
3	2 MLD	Per MLD	223.63
4	3 MLD	Per MLD	212.45
5	4 MLD	Per MLD	201.29
6	5 MLD	Per MLD	191.60
7	10 MLD	Per MLD	167.28
8	15 MLD	Per MLD	156.72
9	20 MLD	Per MLD	151.23
10	25 MLD	Per MLD	146.02
11	30 MLD	Per MLD	140.89
12	35 MLD	Per MLD	137.58
13	40 MLD	Per MLD	134.73
14	45 MLD	Per MLD	131.64
15	50 MLD	Per MLD	128.50
16	60 MLD	Per MLD	122.23
17	70 MLD	Per MLD	119.72
18	80 MLD	Per MLD	117.63
19	90 MLD	Per MLD	115.55
20	100 MLD	Per MLD	113.47
21	150 MLD	Per MLD	107.10
22	200 MLD	Per MLD	100.83
23	250 MLD	Per MLD	97.18
24	300 MLD	Per MLD	93.57

47	Construction of STPs with Moving Bed Bio Reactor Technology (MBBR)		Rs. in Lakhs
A	Designing, providing, constructing, hydraulic testing, commissioning and giving satisfactorily trial run for 3 months of ____ MLD capacity STP with Moving Bed Bio Reactor (MBBR) Technology consisting of Inlet Chamber, Screen Chamber, Grit Chamber and MBBR (Based on technologies providing attached growth on plastic media kept suspended in the sewage due to low density of plastic & provided with diffused air for aeration with tank), Secondary Clarifier, Sludge collection sump, Gravity Sludge Thickener, Chlorine Contact Tank/ UV Disinfection, Chlorinator Room/ UV Channel, Sludge Dewatering Equipment, Tertiary Treatment involving Coagulant Dosing System/ Flash Mixer + Flocculation + Settling Tank/ Clariflocculator, Pressure Sand Filters, all necessary piping work with required valves, gates, drains, pathways, Administration Block cum Laboratory, Laboratory Equipments, inclusive of mandatory spare parts and instrumentation, Internal Roads, Pathways, compound wall, Tools and Plants, complete as turnkey job with all involved civil, electrical, instrumentation and mechanical works inclusive of following items, units as per detailed specifications for civil, electrical and mechanical components etc., complete to achieve the norms prescribed by the Hon'ble NGT / CPCB/ TGPCB (pH-5.5 to 9.0, BOD < 10ppm, COD<50 ppm, TSS<20ppm, Total Nitrogen < 10, Total Phosphorous < 1.0, Faecal Coliform (Most Probable Number) < 100) to get recyclable quality of water for industrial/agricultural purposes/ discharge into water bodies as well as land disposal/ applications.		
	The Coagulant Dosing System shall be provided mandatorily for chemical phosphorous removal. All units shall be interconnected with administration building by suitable RCC overhead walkways. Min. freeboard of 300mm shall be maintained unless otherwise asked for 600mm stipulated for specific units. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
	UNITS INCLUDED		
A	Primary Treatment		
1	Inlet Chamber: Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) inlet chamber for the peak flow as per CPHEEO Manual including necessary excavation in all types of strata (excluding rock) including walkway all around the periphery, Inlet chamber having minimum Hydraulic Retention Time of 60 seconds, each compartment shall be provided with steel gates with extension rod, head stock operating wheels. SS pipe railing etc. including providing and making necessary arrangements to connect the flow to screen chamber by approach channel as per approved drawings and as directed by the Engineer in Charge.		

2	Screen Chamber: Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) 2 Nos. approach channels (min 4.5 m long), mechanically cleaned bar rack screen (6 mm clear opening 10 mm flats). Escalator screens, with 100% standby manual fine screen (10 mm clear opening) MOC SS316, CI sluice gates (one before screen & one after screen) designed as per CPHEEO Manual, including inlet pipe/channel from inlet chamber, outlet pipe/channel to grit chamber, free board of 500mm minimum, RCC walkway 1.2m wide with SS pipe railing. RCC stair case of 1.2 m width from GL to screen chamber with operating platform and belt conveyor system including panel & push bottom switch at local level as well as MCC room for two way control. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
3	Grit Chamber: Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) Grit Chamber - Detritus upto 5 MLD with 100% standby, vortex type / aerated type above 5 MLD with 100% standby, mechanically operated capable of removing 100% of 0.2 mm size particle and above, having specific gravity 2.40, Hydraulic Retention Time of 1 minute at average flow, horizontal velocity not exceeding 0.30 m/sec at peak flow with suitable arrangement of separation of grit from putrescible solids. Inlet and outlet channels of required sizes shall be provided to connect the flow to connecting unit etc. complete including Hydraulic testing for water tightness of structure having minimum Free Board of 300 mm, wash out arrangement to Grit chamber and platform of 1.2 m width, RCC walkway with SS pipe railing shall be provided. A pit for collecting grit conveyed by conveyor shall be provided. It should be suitable to handle the grit for carting. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
4	Parshall flume having head loss limited to 150 mm with necessary flow measuring devices/meter consisting of digital indicator in LPS & MLD		
B	SECONDARY TREATMENT		
5	Distribution chamber: Distribution chamber with CI sluice gates for each basin of MBBR and bypass chamber, min. 3m x 2m of required depth, operating platform, DI pipes to connect to MBBR basins. Bypass pipe from distribution chamber upto inlet of Chlorine Contact Tank shall be provided in RCC NP3 S/S pipes with HAC lining with manholes. Distribution chamber shall be provided if necessary and all arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

6	MBBR Tank (Minimum 2 Nos) Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) biological reactor tank for removal of BOD and T-N to handle the average flow & having hydraulics suitable to handle peak flow conditions having minimum Hydraulic Retention Time of 6.0 hours (Aerobic Detention Time 4.5 Hrs & Anoxic Detention Time - 1.5 Hrs) with suitable 1.2m wide walkway etc. as per specifications. The tank shall be equipped with inlet & outlet arrangement, process air blowers for supply of air, PP (virgin plastic material of minimum 600 m2 specific surface area/ m3) carrier bio media etc. FB of 500mm & Side water depth as required should be complete as per detailed specifications. The outlet of tank shall be provided with strainer (SS-304) for preventing escape of Media from the tank. Volume of the bio media shall not be less than 20% of the volume of the tank. Process air blowers of rotary twin lobe shall be capable of providing adequate oxygen for biological process to maintain minimum DO of 2 mg/lit in MBBR basin and also to keep media in suspension. In addition there would be internal sludge recirculation facility from Aerobic Tank to Anoxic Tank as per standard Design practice. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
7	Process Air Blowers or Aspirator Aerators: The Plant should be based on Dissolved Oxygen/Oxygen Uptake Rate Control with VFD driven Aeration Device along with acoustic hood. The Aeration System shall be designed for 110 % Capacity of the design Air requirement. The aeration Blower/aeration Device shall be having 50% installed standby unit. Air diffuser shall be of disc/tubular type, fixed. The wetted part of the aeration system of non-corrosive materials such as UPVC (upto 200mm dia) /SS 304 (for dia more than 200mm). The non wetted part of the aeration system shall be of MS material. Blowers shall be housed in process air blower building. The minimum area of building is 20 sq.m, and height of 5m (min). Surface aerators are not acceptable. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

8	Secondary Clarifier Design, construction, testing and commissioning of VRCC M30 grade (with sulphate resistant cement) water tight secondary clarifier as per design guidelines by CPHEEO manual. The settler shall be provided with a scraper mechanism in MS with epoxy painting for collecting the settled solids at the bottom. The sludge will be collected in sludge thickener by gravity/ pumping & supernatant will flow over a weir & will be collected in a launder. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge. Return Sludge pump House - wet well with minimum HRT of 60 minutes upto flow of 80% of return sludge capacity and depth of sludge to be limited to 2m, separate panel room outside wet well, 100% standby pumps. Return sludge pump house shall be provided if necessary and all arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
C	Tertiary Treatment Coagulant Dosing System/ Flash Mixer + Flocculation + Settling Tank/ Clariflocculator. The design values of the tertiary treatment units are to be considered from CPHEEO Manual on Water Supply & Treatment		
9	Flash Mixer Rapid mixing device design confirming to IS: 7090 of 1985, Detention time 60 sec, velocity gradient 300-400 sec ⁻¹ with fans gear and motor assembly as per approved designs and drawings. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
10	Coagulant Dosing System Dosing Tanks- 2 Nos. with mixing, carrying, dosing with piping arrangement. Chemical Storage area as per approved specifications, designs and drawings.		
11	Flocculation Tank RCC Hopper bottom units having slope > 45 Deg as per hydraulic and process design with detention period 20 minutes with flocculator paddles with gear and motor assembly as per design. Flocculator design conforming to IS: 7208-1974 (Type-C). Surface loading rate 8000 litre/hour/sq.m and depth 2.5m using PVC media with supporting arrangement and sludge collecting pipes as per detail specifications. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
12	Filter Feed Sump & Pumps		
13	Pressure Sand Filters for STP capacities less than 10MLD		

14	Rapid Sand Gravity Filters with shed (Applicable to plant capacity above 10MLD only) Filter House (RCC framed structure with infill brick masonry walls) and RCC filter beds with sand and gravel bedding as per hydraulic and process design adopting 6000 Liters/hour/sq.m. Filtration rate with 2m water above sand media with under drainage system and inlet, outlet, backwash (rate 600LPM per Sq.m.) piping, pipe gallery, platform min. 5.5m in width and valves/gates arrangement as per design and detail specifications All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
	a. Filter Sand		
	Effective size 0.45 to 0.7 mm, uniformity coefficient not more than 1.7 nor less than 1.3, depth of sand 0.75m, free board 50cm, gravel 0.45m in depth, sand and gravel conforming to IS: 8491 (I)- 77, backwash by air wash (if specified) and hard wash by water, standard appurtenances (to be specified), rate of flow controller, filter gauge, sand expansion guage, etc.		
	Wash Water Tank Wash Water tanks of capacity equal to 2% of designed quantity of filtered water in a day (+) 10% with 8 to 10 Mtr. Head (as specified)		
	Wash Water Pumps Wash Water Pumps with 100% Standby		
	Air Blowers Capable of delivering 750 to 833 LPM per sq.m of free air flow area at 0.35 to 0.4 Kg/sq.m at the under drains (100% standby). (For capacity of FP more than 10 MLD)		
15	Valves/Gates Inlet, outlet, wash water inlet- outlet and all types and sizes of DI valves/gates as per design of specified make/brand.		
	All types gauges and meters required for filter operations and backwashing etc.		
	The filtration system could also be well tested cloth media disk filtration		
C	DISINFECTION WITH GAS CHLORINATOR OR UV DISINFECTION		
16a	Chlorine Contact Tank: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) Chlorine contact chamber of adequate capacity to deal with 1 DWF average flow. The chlorine contact tank shall be designed for a hydraulic retention time of minimum 30 minutes, during average flow to achieve 99.99% coliform reduction. Chlorine dose shall be maintained as per standard provisions, including designing, providing and constructing water supply provision for chlorination, including providing dewatering and by pass arrangement jointing to final effluent mains and outlet weir etc. complete. The effluent quality shall match with the standards laid down by Hon'ble NGT norms/ CPCB/ TGPCB and as per obligatory provision and as detailed specification. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

16b	Chlorinator and Chlorinator Room/Tonner Room: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) Chlorinator room of required size with 2 Nos. (1 working + 1 stand by) of vacuum type chlorinators with auto switch over facility and having capacity for dosage of adequate chlorine to ensure 99.99% coliform reduction as per obligatory provisions and detailed specifications. The chlorinator equipment shall include cost of chlorine cylinders/tonner, piping, valves, measuring and controlling equipment, safety devices, lifting equipment, etc. complete as per IS -10553 (part II) 1982. The tonner room should have minimum 3 MT capacity Hoist for loading and unloading facility. Tonner storage should be distinctly isolated and should be for minimum storage space as directed in the design specification and as per gas laws 1981 and factory act shall be provided. All other matching amenities shall be provided, Minimum 5 MT gantry rail shall be provided for full length of tonner room at 6 m height from level of tonner room, with outlet chamber and treated effluent outlet channel etc. complete as per detailed specification. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
17a	UV DISINFECTION SYSTEM: Designing, Providing and Installation of a UV disinfection system complete with UV Lamp banks, power distribution centres, System Control Cabinet (CC) with minimum 7” HMI, Level Controller(s), Integrated Lamp bank rack-systems for easy installation and maintenance as required as per the US EPA UV Disinfection Guidance Manual (2006) and IUVA Uniform Protocol for complete disinfection to suit the effluent norms specified above. MoC for submerged components : SS 316 L, For non submerged components and coming in contact with sewage : SS 316, All wiring exposed to UV light shall be rubber coated. Effluent Level Controller: a. Motorized Weir Gate or equivalent. Ultrasonic Water Level Sensor: One low water level sensor for each UV channel, before and after UV. Low Water Level Sensor: One low water level sensor for each UV lamp bank that can shut off the UV lamps in case of water level drops and lamps would be in air. The secondary treated sewage shall be led to UV channel for disinfection. The UV system shall comprise of a complete and operational open channel, gravity flow, ultraviolet (UV) disinfection system. The system shall be complete with UV Lamp (Low Pressure High Output (LPHO) UV Lamps shall be minimum 350 W low pressure amalgam design with minimum UVC efficiency of 50%), electrical cabinets housing the electronic ballasts, power distribution, and system control, UV detection system, automatic mechanical wiping system and water level control device(s) / weir, etc. Suitable outlet arrangement shall be provided to ensure required submergence of UV lamps at all times.		

	The objective of the UV is to disinfect the secondary OR final treated effluent and having minimum 99.99% disinfection efficiency (i.e. 3-Log reduction or better as required to achieve the fecal coliform level as specified in treated sewage outlet quality requirement) for destruction of all coli forms and other pathogenic micro-organisms. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
17b	UV Channel: Channel to be constructed in M30 grade RCC. The inside surface of the UV Channel shall be provided with 20 mm thick water proof plaster in Cement mortar 1:3. The bottom of the tank shall be provided with 50 mm thick screeding. The outside surface shall be provided with 20 mm thick double coat Sand phased plaster in cement mortar 1:3 with paint as per civil specification. Min. 1.2 m walkway on sides and operating platforms as required shall be provided. Min. 1 m high GI/SS handrails shall be provided. An RCC shed with lifting arrangement for UV system as per design shall be provided. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
D	Sludge treatment		
18	Raw Sludge Pump House Sump with minimum HRT of 30 minutes & depth of sludge limited to 2 m, 4.5 m minimum diameter, separate panel room outside the pump house. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
19	Sludge Thickner with equipments: Design, construction, testing and commissioning of VRCC M 30 grade sludge thickener-gravity type (picket fence) with Solids loading rate of 25-35 kg/m ² /day with inlet & outlet pipes, central feed well, sludge it & sludge removal arrangement, grouting wherever necessary with walkway all around of 1.20m with SS pipe railing interconnecting DI pipes all complete as per specifications having bottom slope 1:6 & min 4.5m Sewage Water Depth with necessary fixed bridge scraper arrangement as per detailed specifications & necessary intet & outlet arrangement. All other arrangement as per detailed specifications, Min sludge concentration in thickened sludge shall be 5%.MoC for MS frame: Mild Steel Epoxy Coating All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

20	Sludge Holding Sump cum pump house: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) sludge sump cum pump house of appropriate size with suitable capacity pump sets, suitable ceiling height over sump for discharging sludge to centrifuge using DI pipe with High Alumina coating complete as per detailed specification. Agitators/Mixers shall be provided in sump for keeping sludge in suspension. The pump shall be of Helical Screw pumps, 100% standby. Agitators/Mixers shall be provided in sump for keeping sludge in suspension. The pump shall be of Helical Screw pumps, 100% standby. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
21	Sludge Dewatering Equipment Room with Centrifuge / belt press / screw press / Filter Press / Combi machine: Design, construction, testing and commissioning of VRCC M 30 grade (with sulphate resistant cement) Sludge Dewatering Equipment Room and installation of Centrifuge / belt press / screw press / Filter Press / Combi- machine to handle the sludge flow as per specifications, with appropriate inlet and outlet provision, sludge dewatering unit drain etc. complete as per specifications. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
22	Sludge/ filtrate Pumps		
	a) Capacity to pump sludge in 1 hour with 100% standby (20-25% efficiency, "C" value to be adopted 50% than that of water to calculate friction loss)		
	b) Filtrate from thickening and dewatering to be conveyed only by PVC 10 Kg/sq.cm		
23	Valves/gates		
	Suitable diameter of DI D/F PN 16 shall be provided for Inlet, Outlet, wash water inlet as per approved make/brand.		
	All types of gauges and meters shall be provided as per the requirement for O&M as per design and specifications of approved make/brand.		
	Necessary Instrumentation and control as per specifications		
24	Outfall Sewer: Design, construction, testing and commissioning of appropriate outfall sewer of RCC S/S NP3 pipe with High Alumina Coating to discharge treated effluent from outlet chamber after chlorination tank to the disposal point of outlet battery limit of STP including necessary chambers for inspection and cleaning, including necessary excavation, dewatering, refilling, concrete encasing/bedding concrete, steps to reach the disposal/ nallah bed level, pitching and energy dissipation chamber in nallah portion etc. complete up to 100 m length RCC S/S NP3 pipe line and including all above items. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		

25	By pass arrangements: Design, construction, testing and commissioning of suitable capacity of RCC S/S NP3 pipes with High Alumina Coating with manholes and CI sluice gates (MH to be raised above TWL of adjacent unit)		
26	Piping work in DI K7 Class including DI Sluice valves, DI Reflux Valves, MS Gates: Providing laying and jointing pipes other than those already included in the above items for interconnection by-pass drains etc of all units including adequate numbers of manhole chambers. The item includes excavation, refilling and hydraulic testing of pipes, valves, gates, accessories and cost of jointing materials. The items includes required channels with gates for interconnection of units by pass drains etc. for all units as directed etc. complete as per detailed specifications. All arrangements shall be as per approved drawings and as directed by the Engineer in Charge.		
27	Administrative Building cum Laboratory (G+1) (minimum built up area of 100 sqm): Designing, providing and constructing administrative building, office cum Laboratory including stores. This shall be a building having appropriate carpet area and ground floor and a first floor complete as per specifications including necessary excavation, foundation, all structural components in VRCC M20 grade, Brick masonry (in CM 1:3) with flyash blocks, outside plastering 20mm thick in 2 coats (16 mm in CM 1:6 and 4 mm in CM 1:4), inside and ceiling plastering 12 mm thick in CM 1:3, inside and outside painting with acrylic emulsion paint 2 coats over primer coat, Aluminium door and window with glass panels, vitrified tiles flooring and skirting and all other allied items, fixtures, fastening, electrification arrangement, water supply arrangement etc. complete as per approved drawings and as directed by the Engineer in Charge.		
	a) Ground floor to accommodate administrative office & laboratory		
	b) First floor to accommodate Office of the Plant in Charge, air monitoring equipments to measure wind direction & speed, hydrogen sulphide concentration etc.		
	Laboratory equipments: Laboratory equipment (as per CPHEEO manual/ standard practice)		
	Beautification, telephone and intercom arrangement and wireless system, Furniture and Office Equipments, Office furniture (Make: Godrej or similar approved quantity) as per specifications/ standard practice		
	Ventilation and Safety equipments as per standard practice		
28	Sanitary/ Toilet blocks: Carpet area-15 square meter minimum up to 25 MLD and 25 square meter above 25 MLD (or as specified)		
29	Maintenance Workshop of size as per standard practice		
30	Air blower Building with Air Blowers: Capable of delivering adequate free air for aeration device with suitable pressure (50% standby)		

31	MCC Room of suitable size inside with safety measures, approval of various statutory/central/foreign authority as applicable) shall be executed.		
32	Electric Installation		
	Both internal and external lighting including entire plant area (as specified).		
	Supplying and installation of Transformer of required capacity for all the STP components, wetwell, internal and external lighting along with necessary wiring etc. complete as per standard specifications		
	Instrumentation shall be provided in the plant which includes level sensors, DO sensor, residual chlorine analyser, pressure gauges, flow meters. level switches, pressure indicating and temperature transmitters, alarms, etc., MCC Panels shall be provided as per requirement.		
	DG room with DG sets of required capacity for all the STP components, wetwell, internal and external lighting, as per electric load and specifications (50% energy requirement)		
33	General Infrastructure Development: Designing, providing and constructing general infrastructure development such as internal CC roads of minimum 4.5 mtr wide, internal and external lighting, pathways of minimum 1.5 m wide to access at STP units and Entrance Gate in MS etc. all complete as per specifications, approved drawings and directed by Engineer in Charge		
34	Internal roads: Cement Concrete pavements of M30 grade with minimum 3 m internal road and 4.5m for Main road to connect all units from main gate of plot.		
35	Compound Wall as per the plant layout with footings, columns at 3.6m spacing, plinth beam, brick wall with flyash blocks, internal and external plastering, painting with acrylic emulsion paints 2 coats over primer coat, along the boundary of STP site for a minimum length of 150m. If the compound wall length is increased by over 150m, the extra length shall be paid by the department as per actual measurements, specifications. Work shall be executed as per specifications, approved drawings and as directed by the Engineer in Charge. Water retaining wall cost is extra for the site HFL is above ground Level		
36	Green Belt (33% landscaping area) as per standard practice		

37	OCEMS: Supply, Delivery, Installation and Commissioning of Online Continuous Effluent Monitoring System (OCEMS) Instruments measuring the parameters pH, Chemical Oxygen Demand (COD), Total Suspended Solids(TSS), Biological Oxygen Demand (BOD), Residual Chlorine etc. and Smart Controller and Data logger, UPS backup. Flow reading from the existing flow meter and UV reading The specification of the Controllers, Probes/Sensors, Server for centralized data connectivity for the OCEMS, Calibration of OCEMS, OCEMS Function check, Continuous Validation of OCEMS shall be designed, manufactured, constructed and tested in accordance with latest revision of the relevant Standards, CPHEEO manual and in compliance with the latest guidelines for Online Continuous Effluent Monitoring Systems (OCEMS) of CPCB, Hon'ble NGT.		
	NOTES: 1. Fine screens (SS 316) are of mechanically cleaned type for working unit and manual bar screen type (SS316) for standby unit. For STP capacities upto 2 MLD, manual screens shall be considered for working and standby units. 2. Upto 5 MLD Capacity STP chlorination may be done by using sodium hypochlorite solution. Above 5 MLD capacity Disinfection - Gas chlorinator/ UV Disinfection to be provided. 3. The cost of sewage pumping station and rising main is not included 4. Makes of equipment shall be approved by concerned department. 5. Grade of steel used is Fe 500/500D/550D Category-A Steel from major Steel Manufacturers including PSUs with minimum installed Production Capacity above 10 Lakh MT Per annum (SAIL, VSP STEEL, TATA, JINDAL PANTHER) for all components. 6. Sulphate Resistant Cement shall be used for all the water retaining structures. 7. Peak factor shall be considered as 3.00 for contributory population upto 20,000; 2.50 for population above 20,001 to 50,000; 2.25 for population above 50,001 to 7,50,000 and 2.00 for population above 7,50,001. 8. The rates mentioned above STP are considering sites falling in Seismic Zone upto II. For sites falling in seismic zone III shall be increased by 3%. 9. SBC considered is 10 t/m². Soil stabilization if required shall be paid extra as per actuals. 10. The agency shall submit detailed designs and drawings for all the components and the same shall be approved by the department concerned prior to grounding the work.		

	11. Hydraulic design of the plant shall be considered with free fall discharge of treated sewage to local water body (above HFL), Hydraulic loss shall be worked out for peak flow condition and shall not exceed 4.5m in any circumstances unless otherwise site specific condition and approved by the department. HFL is considered at NGL. 10% of Taol capex cost will be adopted for every 1m Raise in HFL. 12. Scope includes excavation, refiling and carting away any unwanted material as directed by the Engineer in Charge. 13. All other details shall be as per design criteria and detailed specifications as approved by the Engineer in Charge. 14. QAP of equipment shall be approved by concerned department. 15. Base Rates considered for Ordinary Portland Cement (OPC) is Rs. 5100/MT, Sulphate Resistant Cement (SRC) is Rs. 7000/MT and Category A Steel is Rs. 57,000/MT. These rates shall be considered as base rates for considering Price Variation. However, monthly variation in cement and steel shall not be considered while sanctioning the estimates for this component.		
1	0.5 MLD Treatment Plant		235.11
2	1 MLD Treatment Plant		193.64
3	2 MLD Treatment Plant		159.48
4	3 MLD Treatment Plant		142.36
5	4 MLD Treatment Plant		131.35
6	5 MLD Treatment Plant		123.39
7	10 MLD Treatment Plant		101.62
8	15 MLD Treatment Plant		90.72
9	20 MLD Treatment Plant		83.69
10	25 MLD Treatment Plant		78.63

1. R.C.C. PLAIN ENDED PIPES

Sl. No.	Description				
1	Manufacture, Supply and Delivery of R.C.C. Spun / Vibrated Cast (Reinforced) Plain ended pipes conforming to B.I.S 458/2003, Ex-factory, Excluding transportation & taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Metre	182		
	100 mm dia	Metre	211		
	150 mm dia	Metre	251		
	200 mm dia	Metre	297		
	225 mm dia	Metre	320		
	250 mm dia	Metre	344		
	300 mm dia	Metre	490	1090	1130
	350 mm dia	Metre	614	1379	1404
	400 mm dia	Metre	708	1523	1557
	450 mm dia	Metre	863	1739	1759
	500 mm dia	Metre	953	1904	2185
	600 mm dia	Metre	1404	2846	3400
	700 mm dia	Metre	1804	3554	4566
	800 mm dia	Metre	2226	4693	5988
	900 mm dia	Metre	2802	5912	7449
	1000 mm dia	Metre	3395	7318	10162
	1100 mm dia	Metre	4045	8654	11796
	1200 mm dia	Metre	4815	10201	13803
	1400 mm dia	Metre	6541	13218	19166
	1600 mm dia	Metre	7624	17195	23290
	1800 mm dia	Metre	9956	22832	31293
	2000mm dia	Metre		27742	38225
	2200mm dia	Metre		33097	45774
	2400mm dia	Metre		38453	53322

Note : All the prices are ex-works. Taxes extra as applicable at the time of supply.
The above rates of RCC Plain ended pipes are based on the following raw materials cost.
Cement Rs.5100/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.55000/- per MT. (excluding all taxes).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2

R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S. Rods = $(S2 - S1) / 1000 \times Ws$.

R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$.

S1 = Rs.55000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs.5100/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

Ws = Weight of MS Rods required (Kg.) per metre of pipe as per IS:458/2003.

Wc = Weight of Cement required (Kg.) per metre of pipe.

2. R.C.C. COLLARS

Sl.No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Collars conforming to B.I.S. 458/2003 (rate per each collar) suitable for R.C.C. Plain ended pipes including transportation but excluding taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Each	54		
	100 mm dia	Each	56		
	150 mm dia	Each	59		
	200 mm dia	Each	79		
	225 mm dia	Each	79		
	250 mm dia	Each	91		
	300 mm dia	Each	121	173	173
	350 mm dia	Each	145	211	211
	400 mm dia	Each	161	244	244
	450 mm dia	Each	253	319	319
	500 mm dia	Each	290	383	383
	600 mm dia	Each	394	500	500
	700 mm dia	Each	509	680	680
	800 mm dia	Each	724	858	858
	900 mm dia	Each	862	997	997
	1000 mm dia	Each	1006	1253	1253
	1100 mm dia	Each	1237	1586	1586
	1200 mm dia	Each	1505	1984	1984
	1400 mm dia	Each	1941	2516	2516
	1600 mm dia	Each	2476	3230	3230
	1800 mm dia	Each	2616	4170	4170

Note: Taxes extra as applicable at the time of supply.

The above rates of RCC Collars suitable to plain ended pipes are based on the following raw materials cost.

Cement. Rs.5100/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.55,000/- per MT. (excluding all taxes).

The revised cost of RCC collars due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2

R1 = Variation (increase / decrease) in cost (Rs. per each) due to change in the cost of M.S. Rods = $(S2 - S1) / 1000 \times Ws$. R2 = Variation (increase / decrease) in cost (Rs. per each) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$.

S1 = Rs.55000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs. 5100/-, C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Ws = Weight of MS Rods required (Kg.) per each collar.

Wc = Weight of Cement required (Kg.) per each collar.

3. R.C.C. S/S PIPES (Non - Pressure)

Sl. No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes conforming to B.I.S. 458/2003 at ex-factory (rate per metre of effective length) Excluding transportation & taxes.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Metre	225		
	100 mm dia	Metre	253		
	150 mm dia	Metre	297		
	200 mm dia	Metre	357		
	225 mm dia	Metre	391		
	250 mm dia	Metre	417		
	300 mm dia	Metre	584	1374	1471
	350 mm dia	Metre	750	1786	1818
	400 mm dia	Metre	831	1980	2015
	450 mm dia	Metre	1034	2185	2202
	500 mm dia	Metre	1190	2503	2722
	600 mm dia	Metre	1674	3511	3669
	700 mm dia	Metre	2179	4485	4789
	800 mm dia	Metre	2791	5939	6278
	900 mm dia	Metre	3526	7474	7875
	1000 mm dia	Metre	4267	8488	9491
	1100 mm dia	Metre	5030	10033	10982
	1200 mm dia	Metre	5720	11845	12861
	1400 mm dia	Metre	8089	15695	18257
	1600 mm dia	Metre	10002	20412	22221
	1800 mm dia	Metre	11349	27085	29854
	2000mm dia	Metre		32816	36093
	2200mm dia	Metre		39165	43203
	2400mm dia	Metre		45513	50315

Note: All the prices are ex-works, Taxes extra as applicable at the time of supply. The above rates of RCC S/S Non-Pressure pipes are based on the following raw materials cost
Cement. Rs.5100/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.55000/- per MT. (excluding all taxes).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula. Revised Cost = Cost as per the above table +R1+R2

R1= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S. Rods =(S2-S1)/1000 X Ws.

R2= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement =(C2-C1)/1000 X Wc.

S1 = Rs.55000/- , S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs.5100/- , C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate Ws=Weight of MS Rods required (Kg.) per metre of pipe as per IS:458/2003.

Wc= Weight of Cement required (Kg.) per metre of pipe.

4. R.C.C. S/S PIPES (Pressure)

Sl.No.	Description				
1	2				
1	Manufacture, Supply and Delivery of R.C.C. Socket and Spigot pipes conforming to B.I.S. 458/2003 Ex-factory (rate per metre of effective length) Excluding transportation, taxes & duties.				
	Size	Unit	Rate in Rs.		
			P1 - Class	P2 - Class	P3 - Class
	80 mm dia	Metre	286	327	370
	100 mm dia	Metre	326	388	450
	150 mm dia	Metre	447	583	722
	200 mm dia	Metre	521	748	989
	225 mm dia	Metre	587	854	1107
	250 mm dia	Metre	642	918	1173
	300 mm dia	Metre	871	1326	1665
	350 mm dia	Metre	1084	1830	2391
	400 mm dia	Metre	1288	2416	3141
	450 mm dia	Metre	1394	2867	3894
	500 mm dia	Metre	1832	3145	4454
	600 mm dia	Metre	2511	4685	6231
	700 mm dia	Metre	3339	6226	7963
	800 mm dia	Metre	4183	7489	9693
	900 mm dia	Metre	5064	8870	
	1000 mm dia	Metre	6351	10247	
	1100 mm dia	Metre	7614		
	1200 mm dia	Metre	8961		

Note: All the prices are ex-works, Taxes extra as applicable at the time of supply.
The above rates of RCC S/S Pressure pipes are based on the following raw materials cost.

Cement. Rs.5100/- per MT (excluding all taxes).

Steel (M.S. Rods) - Rs.55000/- per MT. (excluding all taxes).

The revised cost of RCC pipes due to increase / decrease in the cost of raw materials shall be as per the following formula.

Revised Cost = Cost as per the above table + R1 + R2

R1 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of M.S. Rods = $(S2 - S1) / 1000 \times Ws$.

R2 = Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement = $(C2 - C1) / 1000 \times Wc$.

S1 = Rs.55000/- S2 = Cost of M S Rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs. 5100/-, C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Ws = Weight of MS Rods required (Kg) per metre of pipe as per IS: 458 / 2003.

Wc = Weight of Cement required (Kg) per metre of pipe.

5. RUBBER RINGS TO SUIT R.C.C. S/S PIPES

Sl. No.	Description				
1	2				
1	Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S. 5382/1985.				
	Size	Unit	Rate in Rs.		
			NP - 2 Class	NP - 3 Class	NP - 4 Class
	80 mm dia	Each	34		
	100 mm dia	Each	43		
	150 mm dia	Each	76		
	200 mm dia	Each	88		
	225 mm dia	Each	99		
	250 mm dia	Each	109		
	300 mm dia	Each	134	174	174
	350 mm dia	Each	155	205	205
	400 mm dia	Each	172	233	233
	450 mm dia	Each	194	265	265
	500 mm dia	Each	254	303	303
	600 mm dia	Each	333	442	442
	700 mm dia	Each	452	527	527
	800 mm dia	Each	574	639	639
	900 mm dia	Each	717	865	865
	1000 mm dia	Each	839	1043	1043
	1100 mm dia	Each	1009	1335	1335
	1200 mm dia	Each	1616	1679	1679
	1400 mm dia	Each	1777	1847	1847
	1600 mm dia	Each	2214	2255	2255
	1800 mm dia	Each	2756	2880	2880
	2000mm dia	Each		3287	3287
	2200mm dia	Each		3695	3695
	2400mm dia	Each		4102	4102
2	Manufacture, Supply and Delivery of Rubber rings to suit R.C.C. Socket and Spigot pipes conforming to B.I.S 5382/ 1985 (rate per each rubber ring) including transportation but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S. 5382/1985.				
	Size		P1 - Class	P2 - Class	P3 - Class
	80 mm dia	Each	34	34	34
	100 mm dia	Each	43	45	45
	150 mm dia	Each	76	76	76
	200 mm dia	Each	88	88	88
	225 mm dia	Each	99	100	102
	250 mm dia	Each	109	112	116
	300 mm dia	Each	134	142	147
	350 mm dia	Each	155	178	194

	400 mm dia	Each	172	233	238
	450 mm dia	Each	194	267	274
	500 mm dia	Each	254	303	317
	600 mm dia	Each	333	375	381
	700 mm dia	Each	452	496	527
	800 mm dia	Each	574	635	635
	900 mm dia	Each	717	800	
	1000 mm dia	Each	839	965	
	1100 mm dia	Each	1009		
	1200 mm dia	Each	1258		

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

6. CONVEYANCE OF R.C.C. PLAIN ENDED PIPES

Sl.No.	Description	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	2	3	4	5	6
1	Conveyance of R.C.C Spun / Vibrated Cast (Reinforced) Plain ended pipes on all weathered roads including loading, unloading and stacking (per metre)				
		NP - 2 Class		NP - 3 Class & NP - 4 Class	
	80 mm dia	4.65	0.20		
	100 mm dia	6.10	0.20		
	150 mm dia	9.16	0.40		
	200 mm dia	12.22	0.40		
	225 mm dia	13.80	0.60		
	250 mm dia	15.39	0.60		
	300 mm dia	21.50	0.81	59.67	1.65
	350 mm dia	30.63	1.84	64.31	1.84
	400 mm dia	33.67	2.04	76.65	2.47
	450 mm dia	44.43	2.47	82.73	2.84
	500 mm dia	47.46	2.84	90.30	2.84
	600 mm dia	68.95	4.48	136.30	6.32
	700 mm dia	87.24	6.32	151.56	7.36
	800 mm dia	102.63	6.32	182.20	7.36
	900 mm dia	117.87	6.32	238.95	13.87
	1000 mm dia	174.63	13.04	287.85	13.87
	1100 mm dia	191.48	13.04	312.38	15.10
	1200 mm dia	217.46	13.87	349.12	15.10
	1400 mm dia	261.89	13.87	474.83	15.70
	1600 mm dia	303.25	13.87	569.77	15.70
	1800 mm dia	349.12	13.87	759.65	22.03
	2000 mm dia				
	2200 mm dia				
	2400 mm dia				

7. CONVEYANCE OF R.C.C. S/S PIPES

Sl.No.	Description	Rate upto 5 Kms Lead including Loading, unloading & stacking	Rate for every additional 1 KM lead or part thereof.	Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
1	Conveyance of R.C.C. Spun / Vibrated Cast (Reinforced) Socket and Spigot pipes on all weathered roads including loading, unloading and stacking (per metre of effective length).				
	Size	NP - 2 & P1 Class		NP - 3 & NP - 4 Class	
	80 mm dia	6.10	0.19		
	100 mm dia	6.10	0.36		
	150 mm dia	10.73	0.36		
	200 mm dia	13.80	0.74		
	225 mm dia	15.39	0.74		
	250 mm dia	16.83	1.68		
	300 mm dia	27.57	1.85	70.39	2.22
	350 mm dia	32.23	2.04	76.65	2.59
	400 mm dia	32.23	2.40	94.94	4.84
	450 mm dia	46.02	2.59	104.09	4.84
	500 mm dia	50.51	2.78	114.83	5.21
	600 mm dia	65.90	4.84	154.75	7.42
	700 mm dia	81.16	5.21	208.31	14.65
	800 mm dia	111.79	7.98	246.62	14.65
	900 mm dia	166.93	14.26	284.81	14.65
	1000 mm dia	189.89	14.26	300.20	14.65
	1100 mm dia	214.40	14.65	321.68	14.65
	1200 mm dia	238.95	14.65	359.87	15.01
	1400 mm dia	297.13	14.65	482.39	15.01
	1600 mm dia	352.30	15.01	569.77	16.12
	1800 mm dia	436.50	15.01	759.65	22.05
		P2 - Class		P3 - Class	
	80 mm dia	6.10	0.19	6.10	0.19
	100 mm dia	6.10	0.36	6.10	0.36
	150 mm dia	10.73	0.36	10.73	0.36
	200 mm dia	13.80	0.74	18.44	1.68
	225 mm dia	18.44	1.68	21.50	1.85
	250 mm dia	19.89	1.85	26.00	2.04
	300 mm dia	38.33	2.22	44.43	2.40
	350 mm dia	47.46	2.59	61.26	2.78
	400 mm dia	56.63	2.78	81.16	4.84
	450 mm dia	72.01	4.65	101.04	4.84
	500 mm dia	81.16	4.84	122.51	7.22
	600 mm dia	107.27	4.84	177.68	9.27
	700 mm dia	160.84	9.81	258.82	14.65
	800 mm dia	212.83	13.91	330.84	14.65
	900 mm dia	258.82	14.65		
	1000 mm dia	318.51	15.01		

8. A.C. PIPES

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo No.146/T2/SoR/2014-15/2014, dt:30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl.No	Description					
1	Manufacture, Supply of A.C*. Pressure pipes (mazza process) as per BIS No: 1592/2003 as amended from time to time duly marked with BIS mark, including cost of material, incidental handling, loading and packing charges but are exclusive of transportation, unloading, stacking at departmental stores, and excluding taxes. The pipes shall be tested at factory premises conforming to IS code 1592/2003.					
	Size	Unit	Rate in Rs.			
				Class - 15	Class - 20	Class - 25
	80 mm dia	Rate/Metre		216	237	295
	100 mm dia	Rate/Metre		284	360	441
	125 mm dia	Rate/Metre		369	457	578
	150 mm dia	Rate/Metre		517	648	811
	200 mm dia	Rate/Metre		856	1099	1395
	250 mm dia	Rate/Metre		1087	1411	1766
	300 mm dia	Rate/Metre		1520	1981	2531
	350 mm dia	Rate/Metre		1850	2406	3036
	400 mm dia	Rate/Metre		2404	3148	3907
	450 mm dia	Rate/Metre		2861	3798	4756
	500 mm dia	Rate/Metre		3527	4641	5830
	600 mm dia	Rate/Metre		5016	6554	8352
	700 mm dia	Rate/Metre		6601	8953	11577
	750 mm dia	Rate/Metre		7521	10336	13246
	800 mm dia	Rate/Metre		8606	11711	15029
	850 mm dia	Rate/Metre		9656	13172	16923
	900 mm dia	Rate/Metre		10763	14718	18930
	1000 mm dia	Rate/Metre		13288	18068	23278
2	Lowering, laying and jointing of AC pressure pipes with AC couplings or CID joints complete with Rubber rings in readymade trenches true to alignment and gradient including filling with water lead upto 500 mts and testing to required pressure including all sundries but excluding cost of jointing materials and conveyance from source of supply as per BIS No. 6530/1972					
	80 mm dia	Rate/Metre		42	42	42
	100 mm dia	Rate/Metre		62	62	62
	125 mm dia	Rate/Metre		67	67	67
	150 mm dia	Rate/Metre		80	80	80
	200 mm dia	Rate/Metre		105	105	105
	250 mm dia	Rate/Metre		126	126	126
	300 mm dia	Rate/Metre		156	156	156
	350 mm dia	Rate/Metre		264	264	264
	400 mm dia	Rate/Metre		397	397	397

	450 mm dia	Rate/Metre		482	482	482
	500 mm dia	Rate/Metre		613	613	613
	600 mm dia	Rate/Metre		659	659	659
	700 mm dia	Rate/Metre		736	736	736
	750 mm dia	Rate/Metre		819	819	819
	800 mm dia	Rate/Metre		862	862	862
	850 mm dia	Rate/Metre		919	919	919
	900 mm dia	Rate/Metre		1004	1004	1004
	1000 mm dia	Rate/Metre		1032	1032	1032
	1. The above rates of AC Pipes are based on the Cement cost of Rs.5100/- per MT (excluding all taxes). 2. The above rates of AC pipes are based on the Fiber cost of Rs.78,500/- per M.T (excluding all taxes) For any Increase/ Decrease in the rate of cement, the price of AC pipe per Rmt shall be increased/decreased as under. $W \times 0.85 \times IC$ Where W = Weight of pipe in Kg's/Rmt IC = Increase/Decrease in cost of cement/Kg For any increase/decrease in the rate of fiber, the price of AC pipe per Rmt shall be increased/Decreased as under : $W \times 0.15 \times IF$ Where : W=: Weight of pipe in Kg's/Rmt IF = Increase /Decrease in cost of fiber/Kg					
Note:	1) The Fiber rates are to be obtained from A.C. Pipe manufacturer of "Mazza" process. 2) The cement rate shall be communicated by the sub-committee of Board of Chief engineers. 3)The taxes as applicable shall be added as per rules at the time of preparation of estimate					
2	Transportation of AC pressure pipes at site of work anywhere in Telangana State on motor able roads for full truck loads including transit insurance, unloading, and stacking at site of work etc. Complete (AC Couplings and Rubber rings are to be supplied free of transportation charges).				5% on the basic cost of corresponding AC Pressure pipes.	

*Under any Circumstances the A.C. pipes shall not be procured for laying new water lines, except O&M works.

9. A.C. COUPLINGS

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo No.146/T2/SoR/2014-15/2014, dt:30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl.No	Description					
1	2					
1	Manufacture, Supply of A.C* Couplings suitable to A.C*.Pressure pipes (mazza process) as per BIS: 1592/2003 excluding cost of rubber rings to suit AC* pressure pipes including cost of material, incidental handling, packing, transportation and unloading at site transit risk, but excluding taxes and testing of joints as per IS Code.					
	Size	Unit	Rate in Rs.			
				Class - 15	Class - 20	Class - 25
	80 mm dia	Rate/Each		101	107	124
	100 mm dia	Rate/Each		129	142	168
	125 mm dia	Rate/Each		164	179	215
	150 mm dia	Rate/Each		190	237	294
	200 mm dia	Rate/Each		350	385	489
	250 mm dia	Rate/Each		409	516	654
	300 mm dia	Rate/Each		534	691	890
	350 mm dia	Rate/Each		689	892	1137
	400 mm dia	Rate/Each		1064	1388	1773
	450 mm dia	Rate/Each		1274	1678	2154
	500 mm dia	Rate/Each		1518	2028	2589
	600 mm dia	Rate/Each		1874	2354	3010
	700 mm dia	Rate/Each		2462	3316	4311
	750 mm dia	Rate/Each		2778	3797	4900
	800 mm dia	Rate/Each		3151	4273	5530
	850 mm dia	Rate/Each		3511	4779	6200
	900 mm dia	Rate/Each		3885	5313	6899
	1000 mm dia	Rate/Each		4742	6459	8419

1. The above rates of AC Coupling are based on the Cement cost of Rs.5100/- per MT (Excluding all taxes).

2. The above rates of AC Coupling are based on the Fiber cost of Rs.78,500/- per M.T (Excluding all taxes)

For any Increase/ Decrease in the rate of cement, the price of AC Coupling per Each shall be increased/decreased as under.

$W \times 0.85 \times IC$ Where W = Weight of Coupling in Kgs/Each, IC = Increase/Decrease in cost of cement/kg. For any increase/decrease in the rate of fiber, the price of AC Coupling per Each shall be increased/Decreased as under :

$W \times 0.15 \times IF$ Where : W= Weight of Coupling in Kgs/Each, IF = Increase /Decrease in cost of fiber/kg. The Fiber rates are to be obtained from A.C. Pipe manufacturer of "Mazza" process. The cement rate shall be communicated by the sub-committee of Board of Chief engineers.

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

10. RUBBER RINGS TO SUIT A.C. COUPLINGS

The PH & ME department banned the usage of RCC & AC pipes for water supply works vide Memo No.146/T2/SoR/2014-15/2014, dt:30.06.2014. However ENC (RWS) requested in the SoR meeting on 06.05.2015 to incorporate A.C pipes rates in SoR for carrying out O&M works, accordingly the following rates are adopted.

Sl. No.	Description		
1	2		
1	Schedule of rate for supply of Rubber rings manufactured as per BIS: 5382/1988 with BIS Mark embossed per each set suitable for A.C* Couplings including cost of material, incidental, handling, packing, transportation and unloading at site transit risk etc., but excluding taxes. The Rubber Rings shall be tested at the factory premises conforming to B.I.S 5382/1988		
	Size	Unit	Rate in Rs.
			Class - 15, 20 & 25
	80 mm dia	Each Set	89
	100 mm dia	Each Set	110
	125 mm dia	Each Set	142
	150 mm dia	Each Set	180
	200 mm dia	Each Set	187
	250 mm dia	Each Set	217
	300 mm dia	Each Set	217
	350 mm dia	Each Set	246
	400 mm dia	Each Set	301
	450 mm dia	Each Set	353
	500 mm dia	Each Set	408
	600 mm dia	Each Set	464
	700 mm dia	Each Set	960
	750 mm dia	Each Set	999
	800 mm dia	Each Set	1074
	850 mm dia	Each Set	1195
	900 mm dia	Each Set	1257
	1000 mm dia	Each Set	1393

Note: The taxes as applicable shall be added as per rules at the time of preparation of estimate.

11. PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES

Sl.No.	Description							
1	Manufacture, Supply, Delivery of Pre-stressed (Non-cylinder) concrete pipes conforming to IS 784/2001 ex-factory excluding transportation & taxes, for the following field test pressures.(the manufacture shall design the pipes as per the IS Code 784-2001)							
	Size	Unit	Rate					
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
			6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
	350 mm dia	Metre	3161	3172	3188	3211	3280	3397
	400 mm dia	Metre	3393	3420	3460	3515	3585	3644
	450 mm dia	Metre	3603	3624	3672	3754	3857	3946
	500 mm dia	Metre	3901	3924	3964	4060	4154	4283
	600 mm dia	Metre	4488	4529	4588	4746	4910	5070
	700 mm dia	Metre	5268	5357	5497	5674	5853	6115
	800 mm dia	Metre	6405	6566	6738	6968	7197	7571
	900 mm dia	Metre	7356	7569	7791	8155	8441	9093
	1000 mm dia	Metre	8680	8956	9244	9544	9894	10649
	1100 mm dia	Metre	9746	10064	10419	10775	11186	12075
	1200 mm dia	Metre	10963	11381	11778	12077	12220	13916
	1300 mm dia	Metre	12441	12915	13389	13867	15179	15823
	1400 mm dia	Metre	14412	14966	15532	16471	17578	18402
	1500 mm dia	Metre	16289	16942	17565	19155	19920	22258
	1600 mm dia	Metre	18347	19058	19775	21747	22546	24823
	1700 mm dia	Metre	19693	20512	21325	23393	25884	27096
	1800 mm dia	Metre	21789	23253	24665	26866	27886	30873
	1900 mm dia	Metre	23280	24636	26995	28611	31204	33688
	2000 mm dia	Metre	25621	27297	28891	31656	35140	36561
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of rubber rings, cost of transportation of water and emptying pipe line after completion of field testing etc.							
	350 mm dia	Metre	277	277	277	277	277	277
	400 mm dia	Metre	299	299	299	299	299	299

	450 mm dia	Metre	345	345	345	345	345	345
	500 mm dia	Metre	367	367	367	367	367	367
	600 mm dia	Metre	452	452	452	452	452	452
	700 mm dia	Metre	529	529	529	529	529	529
	800 mm dia	Metre	600	600	600	600	600	600
	900 mm dia	Metre	656	656	656	656	656	656
	1000 mm dia	Metre	758	758	758	758	758	758
	1100 mm dia	Metre	851	851	851	851	851	851
	1200 mm dia	Metre	943	943	943	943	943	943
	1300 mm dia	Metre	1069	1069	1069	1069	1069	1069
	1400 mm dia	Metre	1210	1210	1210	1210	1210	1210
	1500 mm dia	Metre	1312	1312	1312	1312	1312	1312
	1600 mm dia	Metre	1471	1471	1471	1471	1471	1471
	1700 mm dia	Metre	1601	1601	1601	1601	1601	1601
	1800 mm dia	Metre	1693	1693	1693	1693	1693	1693
	1900 mm dia	Metre	1788	1788	1788	1788	1788	1788
	2000 mm dia	Metre	1883	1883	1883	1883	1883	1883
3	Conveyance of pre-stressed (Non-cylinder) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes.(minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)							
	350 mm dia	PerKM/M	2.00	2.00	2.00	2.00	2.00	2.00
	400 mm dia	PerKM/M	2.00	2.00	2.00	2.00	2.00	2.00
	450 mm dia	PerKM/M	2.42	2.42	2.42	2.42	2.42	2.42
	500 mm dia	PerKM/M	2.54	2.54	2.54	2.54	2.54	2.54
	600 mm dia	PerKM/M	2.84	2.84	2.84	2.84	2.84	2.84
	700 mm dia	PerKM/M	4.69	4.69	4.69	4.69	4.69	4.69
	800 mm dia	PerKM/M	4.69	4.69	4.69	4.69	4.69	4.69
	900 mm dia	PerKM/M	4.69	4.69	4.69	4.69	4.69	4.69
	1000 mm dia	PerKM/M	7.53	7.53	7.53	7.53	7.53	7.53
	1100 mm dia	PerKM/M	7.53	7.53	7.53	7.53	7.53	7.53

	1200 mm dia	PerKM/M	14.33	14.33	14.33	14.33	14.33	14.33
	1300 mm dia	PerKM/M	14.49	14.49	14.49	14.49	14.49	14.49
	1400 mm dia	PerKM/M	14.49	14.49	14.49	14.49	14.49	14.49
	1500 mm dia	PerKM/M	14.49	14.49	14.49	14.49	14.49	14.49
	1600 mm dia	PerKM/M	16.19	16.19	16.19	16.19	16.19	16.19
	1700 mm dia	PerKM/M	16.19	16.19	16.19	16.19	16.19	16.19
	1800 mm dia	PerKM/M	16.61	16.61	16.61	16.61	16.61	16.61
	1900 mm dia	PerKM/M	17.30	17.30	17.30	17.30	17.30	17.30
	2000 mm dia	PerKM/M	17.30	17.30	17.30	17.30	17.30	17.30
4	Cost of Machine End pair (Socket +Spigot) with 100mm length MS Barrel on each side of Socket and Spigot for providing M.S Specials on PSC pipelines excluding cost of M.S Specials & Taxes but including cost of conveyance to site etc., complete.							
	350 mm dia	Per Pair	12346.00	12346.00	12346.00	12346.00	12346.00	12346.00
	400 mm dia	Per Pair	14163.00	14163.00	14163.00	14163.00	14163.00	14163.00
	450 mm dia	Per Pair	15986.00	15986.00	15986.00	15986.00	15986.00	15986.00
	500 mm dia	Per Pair	17823.00	17823.00	17823.00	17823.00	17823.00	17823.00
	600 mm dia	Per Pair	21209.00	21209.00	21209.00	21209.00	21209.00	21209.00
	700 mm dia	Per Pair	24863.00	24863.00	24863.00	24863.00	24863.00	24863.00
	800 mm dia	Per Pair	28423.00	28423.00	28423.00	28423.00	28423.00	28423.00
	900 mm dia	Per Pair	32264.00	32264.00	32264.00	32264.00	32264.00	32264.00
	1000 mm dia	Per Pair	34977.00	34977.00	34977.00	34977.00	34977.00	34977.00
	1100 mm dia	Per Pair	38635.00	38635.00	38635.00	38635.00	38635.00	38635.00
	1200 mm dia	Per Pair	42129.00	42129.00	42129.00	42129.00	42129.00	42129.00
	1300 mm dia	Per Pair	45586.00	45586.00	45586.00	45586.00	45586.00	45586.00
	1400 mm dia	Per Pair	54165.00	54165.00	54165.00	54165.00	54165.00	54165.00
	1500 mm dia	Per Pair	63950.00	63950.00	63950.00	63950.00	63950.00	63950.00
	1600 mm dia	Per Pair	71475.00	71475.00	71475.00	71475.00	71475.00	71475.00
	1700 mm dia	Per Pair	80478.00	80478.00	80478.00	80478.00	80478.00	80478.00
	1800 mm dia	Per Pair	92305.00	92305.00	92305.00	92305.00	92305.00	92305.00

	1900 mm dia	Per Pair	107087.00	107087.00	107087.00	107087.00	107087.00	107087.00
	2000 mm dia	Per Pair	125416.00	125416.00	125416.00	125416.00	125416.00	125416.00
5	Cost of M.S Flanges including cost of bolts, nuts, rubber packing etc., complete and flange thickness conforming to IS:7322-1985 and flange dimensions conforming to IS:1538-1993 excluding cost of MS specials including cost and conveyance to site etc., complete.							
	Diameter and thickness	Unit	Rate	Diameter and thickness	Unit	Rate		
	80 mm dia x 15 mm thick	Each Flange	884.00	500mm dia x 20 mm thick	Each Flange	9059.00		
	100 mm dia x 15 mm thick	Each Flange	1219.00	600 mm dia x 20 mm thick	Each Flange	11403.00		
	125 mm dia x 15 mm thick	Each Flange	1465.00	700 mm dia x 25 mm thick	Each Flange	16095.00		
	150 mm dia x 15 mm thick	Each Flange	1954.00	750 mm dia x 25 mm thick	Each Flange	17702.00		
	200 mm dia x 15 mm thick	Each Flange	2439.00	800 mm dia x 25 mm thick	Each Flange	19825.00		
	250 mm dia x 15 mm thick	Each Flange	3177.00	900 mm dia x 25 mm thick	Each Flange	22767.00		
	300 mm dia x 15 mm thick	Each Flange	3616.00	1000 mm dia x 25 mm thick	Each Flange	26828.00		
	350 mm dia x 18 mm thick	Each Flange	5242.00	1050 mm dia x 25 mm thick	Each Flange	28497.00		
	400 mm dia x 18 mm thick	Each Flange	6549.00	1100 mm dia x 25 mm thick	Each Flange	30733.00		
	450 mm dia x 18 mm thick	Each Flange	7615.00	1200 mm dia x 32 mm thick	Each Flange	40712.00		

Note: a) The above rate of PSC pipes are based on the HT wire cost of Rs.63,750/-MT (excluding all taxes). and cement price of Rs.5100/- per MT (excluding all taxes)

The rates may be revised depending upon the increase/decrease in the cost of HT wire and cement. as per the following method. The cost of HT wire may be obtained from reputed firms like SAIL/TATA/ SS Ltd. etc.,

Revised Cost =Cost as per the above table +R1+R2.

R1= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of HT Wire =(H2-H1)/1000 X Wh.

R2= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of Cement =(C2-C1)/1000 X Wc.

H1 = Rs.63,750/- H2 = Cost of HT Wire (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs. 5100/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Wh=Weight of HT Wire required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per metre of pipe.

The rates for MS flanges are considering MS Plates of Rs.61000/- per MT. Price variation to be released on actual weight of flange.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate.

12. PRE-STRESSED (CYLINDER) CONCRETE PIPES

Sl No.	Description										
1	2										
1	Pre-stressed (Cylinder type) concrete pipes conforming to IS 784/2001 @ ex-factory cost of pipes, excluding transportation, laying, jointing, testing, bends, tees, specials & taxes. For the following field test pressures.(the manufacture shall design the pipes as per the IS Code 784-2001).										
	Size	Unit	Rate in Rs.								
			4 Kg/cm2	6 Kg/cm2	8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2	18 Kg/cm2	20 Kg/cm2
	400 mm dia	Metre	5967	5967	5967	5967	5997	6063	6167	6270	6350
	450 mm dia	Metre	6495	6495	6495	6523	6600	6695	6809	6866	6930
	500 mm dia	Metre	6943	6943	7007	7074	7135	7222	7318	7393	7467
	600 mm dia	Metre	7972	8054	8140	8238	8326	8411	8559	8670	8770
	700 mm dia	Metre	9081	9190	9313	9426	9548	9659	9864	9992	10151
	800 mm dia	Metre	10389	10522	10667	10822	10967	11111	11326	11528	11701
	900 mm dia	Metre	11794	11983	12165	12358	12550	12741	13240	13492	13789
	1000 mm dia	Metre	14154	14382	14611	14852	15081	15318	15977	16311	16646
	1100 mm dia	Metre	15698	15974	16262	16539	16827	17102	17908	18277	18721
	1200 mm dia	Metre	17449	17785	18108	18445	18793	19128	20084	20561	21033
	1300 mm dia	Metre	19503	19898	20293	20689	21086	21824	22636	23214	23850
	1400 mm dia	Metre	21857	22345	22844	23389	24346	24988	25898	26166	27254
	1500 mm dia	Metre	25545	26145	26658	27183	28214	28801	29587	30776	31432
	1600 mm dia	Metre	28767	29569	30250	31350	32018	32755	34103	34844	35584
	1700 mm dia	Metre	30935	31813	32485	33737	34489	36065	36933	37777	38628
	1800 mm dia	Metre	33872	34845	36753	37936	39093	41262	43100	44046	45013
	1900 mm dia	Metre	39280	40123	41607	42520	44383	45427	46510	47571	48628
	2000 mm dia	Metre	41337	42880	43904	44939	47016	48166	49369	50539	51719

2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diapher cloth, cost of transportation of water and emptying pipe line after completion of field testing etc.										
	400 mm dia	Metre	563	563	563	563	563	563	563	563	563
	450 mm dia	Metre	660	660	660	660	660	660	660	660	660
	500 mm dia	Metre	720	720	720	720	720	720	720	720	720
	600 mm dia	Metre	842	842	842	842	842	842	842	842	842
	700 mm dia	Metre	960	960	960	960	960	960	960	960	960
	800 mm dia	Metre	1103	1103	1103	1103	1103	1103	1103	1103	1103
	900 mm dia	Metre	1242	1242	1242	1242	1242	1242	1242	1242	1242
	1000 mm dia	Metre	1361	1361	1361	1361	1361	1361	1361	1361	1361
	1100 mm dia	Metre	1544	1544	1544	1544	1544	1544	1544	1544	1544
	1200 mm dia	Metre	1683	1683	1683	1683	1683	1683	1683	1683	1683
	1300 mm dia	Metre	1802	1802	1802	1802	1802	1802	1802	1802	1802
	1400 mm dia	Metre	1982	1982	1982	1982	1982	1982	1982	1982	1982
	1500 mm dia	Metre	2201	2201	2201	2201	2201	2201	2201	2201	2201
	1600 mm dia	Metre	2382	2382	2382	2382	2382	2382	2382	2382	2382
	1700 mm dia	Metre	2683	2683	2683	2683	2683	2683	2683	2683	2683
	1800 mm dia	Metre	2844	2844	2844	2844	2844	2844	2844	2844	2844
	1900 mm dia	Metre	3103	3103	3103	3103	3103	3103	3103	3103	3103
	2000 mm dia	Metre	3303	3303	3303	3303	3303	3303	3303	3303	3303
3	Conveyance of Pre-stressed (Cylinder type) concrete pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)										
	400 mm dia	Per KM/M	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
	450 mm dia	Per KM/M	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
	500 mm dia	Per KM/M	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
	600 mm dia	Per KM/M	2.71	2.71	2.71	2.71	2.71	2.71	2.71	2.71	2.71
	700 mm dia	Per KM/M	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26
	800 mm dia	Per KM/M	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26
	900 mm dia	Per KM/M	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26	4.26
	1000 mm dia	Per KM/M	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81

	1100 mm dia	Per KM/M	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81
	1200 mm dia	Per KM/M	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48
	1300 mm dia	Per KM/M	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48
	1400 mm dia	Per KM/M	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48
	1500 mm dia	Per KM/M	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48
	1600 mm dia	Per KM/M	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48	13.48
	1700 mm dia	Per KM/M	16.19	16.19	16.19	16.19	16.19	16.19	16.19	16.19	16.19
	1800 mm dia	Per KM/M	16.19	16.19	16.19	16.19	16.19	16.19	16.19	16.19	16.19
	1900 mm dia	Per KM/M	16.19	16.19	16.19	16.19	16.19	16.19	16.19	16.19	16.19
	2000 mm dia	Per KM/M	17.19	17.19	17.19	17.19	17.19	17.19	17.19	17.19	17.19

Note: The rates of PCCP pipes which were incorporated in the SoR are based on the following raw materials cost.

HT Wire: - Rs.63750/- (excluding all taxes)

HR Coil (Hot Rolled): - Rs.60500/- (excluding all taxes)

Cement Cost Rs. 5100/- .per MT (excluding all taxes)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials (landed price) as per the following method.

Revised Cost =Cost as per the above table +R1+R2+R3.

R1= Variation (increase / decrease) in cost (Rs. per metre)due to change in the cost of HT Wire =(H2-H1)/1000 X Wh.

R2= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HR Coil =(R2-R1)/1000 X Wr.

R3= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement =(C2-C1)/1000 X Wc .

H1 = Rs.63750/- H2 = Cost of HT Wire (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

R1 = Rs.60500/- R2 = Cost of HR Coil (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs. 5100/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Wh=Weight of HT Wire required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per meter of pipe.

Wr = Weight of HR Coil required (kg) per metre of pipe.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate

13. BAR WRAPPED STEEL CYLINDER (BWSC) PIPES

Sl.No	Description											
1	Bar Wrapped Steel Cylinder (BWSC) pipes conforming to IS 15155 - 2002, ex-factory excluding transportation, taxes and duties etc., for bar wrapped steel cylinder pipes for the following field test pressures.											
	Size	Unit	Rate in Rs.									
			4 -12 Kg/cm ²	14 Kg/cm ²	16 Kg/cm ²	18 Kg/cm ²	20 Kg/cm ²	22 Kg/cm ²	24 Kg/cm ²	26 Kg/cm ²	28 Kg/cm ²	30 Kg/cm ²
	250 mm dia	Metre	2802	2802	2802	2802	2802	2802	3088	3193	3239	3390
	300 mm dia	Metre	3142	3142	3142	3142	3142	3290	3712	3858	3947	4136
	350 mm dia	Metre	3794	3794	3794	3859	4054	4262	4458	4653	4861	5041
	400 mm dia	Metre	4186	4186	4277	4541	4786	5047	5290	5551	5769	6033
	450 mm dia	Metre	4695	4735	5071	5384	5720	5981	6315	6557	6840	7335
	500 mm dia	Metre	5097	5461	5853	6267	6619	7076	7445	7771	8299	8767
	600 mm dia	Metre	6366	6822	7395	7940	8524	9104	9804	10458	11093	11583
	700 mm dia	Metre	7716	8556	9299	10063	10968	11769	12527	13743	14439	15029
	800 mm dia	Metre	9239	10424	11400	12464	13718	14704	16024	17132	18041	19001
	900 mm dia	Metre	11270	12609	13818	15137	16491	18089	19301	20793	22248	23638
	1000 mm dia	Metre	13309	14992	16776	18454	19939	21322	23119	24872	27222	28582
	1100 mm dia	Metre	17803	18191	19984	21975	23903	25711	28369	29922	32411	34291
	1200 mm dia	Metre	19452	20818	22990	25251	27542	29738	32702	35652	38356	40276
2	Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding and fixing of polypropylene diaher cloth, cost of transportation of water and emptying pipe line after completion of field testing.											
	250 mm dia	Metre	383	383	383	383	383	383	383	383	383	383
	300 mm dia	Metre	452	452	452	452	452	452	452	452	452	452
	350 mm dia	Metre	532	532	532	532	532	532	532	532	532	532
	400 mm dia	Metre	596	596	596	596	596	596	596	596	596	596
	450 mm dia	Metre	596	596	596	596	596	596	596	596	596	596
	500 mm dia	Metre	747	747	747	747	747	747	747	747	747	747
	600 mm dia	Metre	918	918	918	918	918	918	918	918	918	918
	700 mm dia	Metre	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
	800 mm dia	Metre	1217	1217	1217	1217	1217	1217	1217	1217	1217	1217

	900 mm dia	Metre	1430	1430	1430	1430	1430	1430	1430	1430	1430	1430
	1000 mm dia	Metre	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580
	1100 mm dia	Metre	1857	1857	1857	1857	1857	1857	1857	1857	1857	1857
	1200 mm dia	Metre	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079
3	Conveyance of Bar Wrapped Steel Cylinder (BWSC) pipes and accessories including loading at factory, un-loading at site and stacking for the following sizes. (minimum distance of 100 km to be considered if the distance is less by 100 km from factory to site)											
	250 mm dia	Per KM/M	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
	300 mm dia	Per KM/M	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
	350 mm dia	Per KM/M	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
	400 mm dia	Per KM/M	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
	450 mm dia	Per KM/M	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
	500 mm dia	Per KM/M	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39
	600 mm dia	Per KM/M	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53	2.53
	700 mm dia	Per KM/M	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84
	800 mm dia	Per KM/M	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74
	900 mm dia	Per KM/M	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02	4.02
	1000 mm dia	Per KM/M	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64
	1100 mm dia	Per KM/M	10.32	10.32	10.32	10.32	10.32	10.32	10.32	10.32	10.32	10.32
	1200 mm dia	Per KM/M	14.43	14.43	14.43	14.43	14.43	14.43	14.43	14.43	14.43	14.43

Note: The above rates of BWSC pipes are based on the following raw materials' cost.

HR Plates - Rs.60500/- per MT (excluding all taxes), M.S. Wire rods - Rs.55000/- per MT (excluding all taxes) Cement Cost Rs. 5100/- per MT (excluding all taxes)

The rates may be revised depending upon the increase/ decrease in the cost of raw materials as per the following method.

Revised Cost = Cost as per the above table + R1+R2+R3.

R1= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of HR Plate = $(H2-H1)/1000 \times Wh$.

R2= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of wire rods = $(W2-W1)/1000 \times Ww$.

R3= Variation (increase / decrease) in cost (Rs. per metre) due to change in the cost of Cement = $(C2-C1)/1000 \times Wc$.

H1 = Rs. 60500/- H2 = Cost of HR Plate (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

W1 = Rs. 55000/- W2 = Cost of Wire rods (Rs. Per MT excluding all taxes) at the time of preparation of estimate.

C1 = Rs. 5100/- C2 = Cost of Cement (Rs. Per MT excluding all taxes) at the time of preparation of estimate

Wh=Weight of HR Plate required (Kg.) per metre of pipe. Wc= Weight of Cement required (Kg.) per metre of pipe.

Ww = Weight of wire rods required (kg) per metre of pipe.

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

14. M.S. PIPES

Sl.No.	Description	Unit	Thickness in mm	Rate in Rs.
1	2	3	4	5
1	Manufacture, supply and delivery of M.S Pipes conforming to IS 3589/2001 including in lining with cement mortar (1:2) 15mm thick using 4 numbers of 6mm dia M.S.Rings at each end of the pipe and out coating with cement mortar (1:3) 30mm thick by shortcreting or gunetting duly providing wire mesh of size 50x50x3mm including cost of all materials, labour charges, transportation to anywhere in T.G, but excluding all taxes.			
	500 mm dia	Metre	8.00	11360
	500 mm dia	Metre	10.00	13456
	600 mm dia	Metre	8.00	13495
	600 mm dia	Metre	10.00	15987
	700 mm dia	Metre	8.00	15579
	700 mm dia	Metre	10.00	18509
	800 mm dia	Metre	8.00	17636
	800 mm dia	Metre	10.00	20951
	800 mm dia	Metre	12.00	24277
	900 mm dia	Metre	8.00	19766
	900 mm dia	Metre	10.00	23417
	900 mm dia	Metre	12.00	27118
	1000 mm dia	Metre	8.00	21916
	1000 mm dia	Metre	10.00	26003
	1000 mm dia	Metre	12.00	30091
	1000 mm dia	Metre	14.00	34127
	1100 mm dia	Metre	10.00	28392
	1100 mm dia	Metre	12.00	32865
	1100 mm dia	Metre	14.00	37339
	1100 mm dia	Metre	16.00	41890
	1200 mm dia	Metre	10.00	30977
	1200 mm dia	Metre	12.00	35836
	1200 mm dia	Metre	14.00	40636
	1200 mm dia	Metre	16.00	45503
	1200 mm dia	Metre	18.00	50363
	1300 mm dia	Metre	10.00	33433
	1300 mm dia	Metre	12.00	38610
	1300 mm dia	Metre	14.00	43855
	1300 mm dia	Metre	16.00	49179
	1300 mm dia	Metre	18.00	54426
	1300 mm dia	Metre	20.00	59681

	1400 mm dia	Metre	10.00	35886
	1400 mm dia	Metre	12.00	41517
	1400 mm dia	Metre	14.00	47149
	1400 mm dia	Metre	16.00	52842
	1400 mm dia	Metre	18.00	58484
	1400 mm dia	Metre	20.00	64194
	1400 mm dia	Metre	22.00	69825
	1500 mm dia	Metre	10.00	38406
	1500 mm dia	Metre	12.00	44424
	1500 mm dia	Metre	14.00	50374
	1500 mm dia	Metre	16.00	56394
	1500 mm dia	Metre	18.00	62489
	1500 mm dia	Metre	20.00	68506
	1500 mm dia	Metre	22.00	74673
	1500 mm dia	Metre	24.00	80691
	1600 mm dia	Metre	10.00	40935
	1600 mm dia	Metre	12.00	47264
	1600 mm dia	Metre	14.00	53729
	1600 mm dia	Metre	16.00	60134
	1600 mm dia	Metre	18.00	66547
	1600 mm dia	Metre	20.00	72952
	1600 mm dia	Metre	22.00	79433
	1600 mm dia	Metre	24.00	85976
	1600 mm dia	Metre	26.00	92469
	1700 mm dia	Metre	10.00	43320
	1700 mm dia	Metre	12.00	50171
	1700 mm dia	Metre	14.00	56961
	1700 mm dia	Metre	16.00	63685
	1700 mm dia	Metre	18.00	70613
	1700 mm dia	Metre	20.00	77404
	1700 mm dia	Metre	22.00	84194
	1700 mm dia	Metre	24.00	91133
	1700 mm dia	Metre	26.00	98001
	1700 mm dia	Metre	28.00	104867
	1800 mm dia	Metre	10.00	45901
	1800 mm dia	Metre	12.00	53087
	1800 mm dia	Metre	14.00	60247
	1800 mm dia	Metre	16.00	67425
	1800 mm dia	Metre	18.00	74601
	1800 mm dia	Metre	20.00	81848
	1800 mm dia	Metre	22.00	89102
	1800 mm dia	Metre	24.00	96278
	1800 mm dia	Metre	26.00	103593
	1800 mm dia	Metre	28.00	110855
	1900 mm dia	Metre	10.00	48366
	1900 mm dia	Metre	12.00	55913
	1900 mm dia	Metre	14.00	63475
	1900 mm dia	Metre	16.00	71023

	1900 mm dia	Metre	18.00	78595
	1900 mm dia	Metre	20.00	86235
	1900 mm dia	Metre	22.00	93859
	1900 mm dia	Metre	24.00	101429
	1900 mm dia	Metre	26.00	109131
	1900 mm dia	Metre	28.00	116771
	2000 mm dia	Metre	10.00	50809
	2000 mm dia	Metre	12.00	58759
	2000 mm dia	Metre	14.00	66700
	2000 mm dia	Metre	16.00	74649
	2000 mm dia	Metre	18.00	82660
	2000 mm dia	Metre	20.00	90609
	2000 mm dia	Metre	22.00	98626
	2000 mm dia	Metre	24.00	106652
	2000 mm dia	Metre	26.00	114664
	2000 mm dia	Metre	28.00	122691
	2000 mm dia	Metre	30.00	130786
	2100 mm dia	Metre	12.00	61658
	2100 mm dia	Metre	14.00	69994
	2100 mm dia	Metre	16.00	78314
	2100 mm dia	Metre	18.00	86658
	2100 mm dia	Metre	20.00	95053
	2100 mm dia	Metre	22.00	103450
	2100 mm dia	Metre	24.00	111862
	2100 mm dia	Metre	26.00	120267
	2100 mm dia	Metre	28.00	128680
	2100 mm dia	Metre	30.00	137153
	2100 mm dia	Metre	32.00	145627
	2100 mm dia	Metre	34.00	154126
	2200 mm dia	Metre	12.00	64506
	2200 mm dia	Metre	14.00	73211
	2200 mm dia	Metre	16.00	81941
	2200 mm dia	Metre	18.00	90723
	2200 mm dia	Metre	20.00	99505
	2200 mm dia	Metre	22.00	108227
	2200 mm dia	Metre	24.00	117018
	2200 mm dia	Metre	26.00	125878
	2200 mm dia	Metre	28.00	134599
	2200 mm dia	Metre	30.00	143458
	2200 mm dia	Metre	32.00	152328
	2200 mm dia	Metre	34.00	161264
	2200 mm dia	Metre	36.00	170063
	2300 mm dia	Metre	12.00	67368
	2300 mm dia	Metre	14.00	76460
	2300 mm dia	Metre	16.00	85604
	2300 mm dia	Metre	18.00	94772
	2300 mm dia	Metre	20.00	103888
	2300 mm dia	Metre	22.00	113057
	2300 mm dia	Metre	24.00	122226

	2300 mm dia	Metre	26.00	131471
	2300 mm dia	Metre	28.00	140589
	2300 mm dia	Metre	30.00	149834
	2300 mm dia	Metre	32.00	159080
	2300 mm dia	Metre	34.00	168402
	2300 mm dia	Metre	36.00	177659
	2400 mm dia	Metre	12.00	70194
	2400 mm dia	Metre	14.00	79669
	2400 mm dia	Metre	16.00	89163
	2400 mm dia	Metre	18.00	98781
	2400 mm dia	Metre	20.00	108258
	2400 mm dia	Metre	22.00	117812
	2400 mm dia	Metre	24.00	127455
	2400 mm dia	Metre	26.00	137009
	2400 mm dia	Metre	28.00	146580
	2400 mm dia	Metre	30.00	156134
	2400 mm dia	Metre	32.00	165775
	2400 mm dia	Metre	34.00	175485
	2400 mm dia	Metre	36.00	185115
	2500 mm dia	Metre	14.00	82978
	2500 mm dia	Metre	16.00	92842
	2500 mm dia	Metre	18.00	102782
	2500 mm dia	Metre	20.00	112723
	2500 mm dia	Metre	22.00	122727
	2500 mm dia	Metre	24.00	132668
	2500 mm dia	Metre	26.00	142609
	2500 mm dia	Metre	28.00	152627
	2500 mm dia	Metre	30.00	162516
	2500 mm dia	Metre	32.00	172534
	2500 mm dia	Metre	34.00	182627
	2500 mm dia	Metre	36.00	192646
	2600 mm dia	Metre	14.00	86266
	2600 mm dia	Metre	16.00	96516
	2600 mm dia	Metre	18.00	106776
	2600 mm dia	Metre	20.00	117102
	2600 mm dia	Metre	22.00	127429
	2600 mm dia	Metre	24.00	137809
	2600 mm dia	Metre	26.00	148146
	2600 mm dia	Metre	28.00	158550
	2600 mm dia	Metre	30.00	168877
	2600 mm dia	Metre	32.00	179281
	2600 mm dia	Metre	34.00	189694
	2600 mm dia	Metre	36.00	200175
	2600 mm dia	Metre	38.00	210580
	2600 mm dia	Metre	40.00	221061
	2600 mm dia	Metre	42.00	231552
	2700 mm dia	Metre	18.00	110846
	2700 mm dia	Metre	20.00	121481
	2700 mm dia	Metre	22.00	132195

	2700 mm dia	Metre	24.00	142917
	2700 mm dia	Metre	26.00	153691
	2700 mm dia	Metre	28.00	164535
	2700 mm dia	Metre	30.00	175323
	2700 mm dia	Metre	32.00	186046
	2700 mm dia	Metre	34.00	196837
	2700 mm dia	Metre	36.00	207705
	2700 mm dia	Metre	38.00	218505
	2700 mm dia	Metre	40.00	229372
	2700 mm dia	Metre	42.00	240163
	2800 mm dia	Metre	18.00	114828
	2800 mm dia	Metre	20.00	125937
	2800 mm dia	Metre	22.00	137036
	2800 mm dia	Metre	24.00	148135
	2800 mm dia	Metre	26.00	159236
	2800 mm dia	Metre	28.00	170404
	2800 mm dia	Metre	30.00	181633
	2800 mm dia	Metre	32.00	192734
	2800 mm dia	Metre	34.00	203911
	2800 mm dia	Metre	36.00	215095
	2800 mm dia	Metre	38.00	226350
	2800 mm dia	Metre	40.00	237526
	2800 mm dia	Metre	42.00	248840
	2900 mm dia	Metre	18.00	118965
	2900 mm dia	Metre	20.00	130373
	2900 mm dia	Metre	22.00	141860
	2900 mm dia	Metre	24.00	153354
	2900 mm dia	Metre	26.00	164837
	2900 mm dia	Metre	28.00	176384
	2900 mm dia	Metre	30.00	187947
	2900 mm dia	Metre	32.00	199441
	2900 mm dia	Metre	34.00	211058
	2900 mm dia	Metre	36.00	222682
	2900 mm dia	Metre	38.00	234321
	2900 mm dia	Metre	40.00	245894
	2900 mm dia	Metre	42.00	257534
	3000 mm dia	Metre	18.00	122894
	3000 mm dia	Metre	20.00	134826
	3000 mm dia	Metre	22.00	146629
	3000 mm dia	Metre	24.00	158501
	3000 mm dia	Metre	26.00	170372
	3000 mm dia	Metre	28.00	182304
	3000 mm dia	Metre	30.00	194263
	3000 mm dia	Metre	32.00	206134
	3000 mm dia	Metre	34.00	218143
	3000 mm dia	Metre	36.00	230145
	3000 mm dia	Metre	38.00	242103
	3000 mm dia	Metre	40.00	254129
	3000 mm dia	Metre	42.00	266139

2	Cost of Laying, Jointing, Hydrostatic Filed Test Pressure, Including Cost of Site Welding, Jointing Materials And Cost of Transportation of Water Including Emptying Pipe Line After Completion Of Field Testing.			Rate in Rs.
	500 mm dia	Metre	8.00	949
	500 mm dia	Metre	10.00	972
	600 mm dia	Metre	8.00	1173
	600 mm dia	Metre	10.00	1197
	700 mm dia	Metre	8.00	1481
	700 mm dia	Metre	10.00	1510
	800 mm dia	Metre	8.00	1705
	800 mm dia	Metre	10.00	1738
	800 mm dia	Metre	12.00	1789
	900 mm dia		8.00	2070
	900 mm dia	Metre	10.00	2107
	900 mm dia	Metre	12.00	2168
	1000 mm dia	Metre	8.00	2290
	1000 mm dia	Metre	10.00	2330
	1000 mm dia	Metre	12.00	2397
	1000 mm dia	Metre	14.00	2428
	1100 mm dia	Metre	10.00	2404
	1100 mm dia	Metre	12.00	2475
	1100 mm dia	Metre	14.00	2509
	1100 mm dia	Metre	16.00	2578
	1200 mm dia	Metre	10.00	2478
	1200 mm dia	Metre	12.00	2556
	1200 mm dia	Metre	14.00	2593
	1200 mm dia	Metre	16.00	2666
	1200 mm dia	Metre	18.00	2742
	1300 mm dia	Metre	10.00	2555
	1300 mm dia	Metre	12.00	2640
	1300 mm dia	Metre	14.00	2679
	1300 mm dia	Metre	16.00	2761
	1300 mm dia	Metre	18.00	2840
	1300 mm dia	Metre	20.00	2949
	1400 mm dia	Metre	10.00	2809
	1400 mm dia	Metre	12.00	2900
	1400 mm dia	Metre	14.00	2940
	1400 mm dia	Metre	16.00	3026
	1400 mm dia	Metre	18.00	3114
	1400 mm dia	Metre	20.00	3148
	1400 mm dia	Metre	22.00	3332

	1500 mm dia	Metre	10.00	2877
	1500 mm dia	Metre	12.00	2972
	1500 mm dia	Metre	14.00	3017
	1500 mm dia	Metre	16.00	3108
	1500 mm dia	Metre	18.00	3201
	1500 mm dia	Metre	20.00	3325
	1500 mm dia	Metre	22.00	3359
	1500 mm dia	Metre	24.00	3487
	1600 mm dia	Metre	10.00	2943
	1600 mm dia	Metre	12.00	3046
	1600 mm dia	Metre	14.00	3095
	1600 mm dia	Metre	16.00	3193
	1600 mm dia	Metre	18.00	3293
	1600 mm dia	Metre	20.00	3420
	1600 mm dia	Metre	22.00	3515
	1600 mm dia	Metre	24.00	3672
	1600 mm dia	Metre	26.00	3845
	1700 mm dia	Metre	10.00	3016
	1700 mm dia	Metre	12.00	3124
	1700 mm dia	Metre	14.00	3175
	1700 mm dia	Metre	16.00	3278
	1700 mm dia	Metre	18.00	3385
	1700 mm dia	Metre	20.00	3521
	1700 mm dia	Metre	22.00	3662
	1700 mm dia	Metre	24.00	3815
	1700 mm dia	Metre	26.00	3983
	1700 mm dia	Metre	28.00	4162
	1800 mm dia	Metre	10.00	3339
	1800 mm dia	Metre	12.00	3451
	1800 mm dia	Metre	14.00	3507
	1800 mm dia	Metre	16.00	3612
	1800 mm dia	Metre	18.00	3728
	1800 mm dia	Metre	20.00	3871
	1800 mm dia	Metre	22.00	4019
	1800 mm dia	Metre	24.00	4182
	1800 mm dia	Metre	26.00	4360
	1800 mm dia	Metre	28.00	4546
	1900 mm dia	Metre	10.00	3821
	1900 mm dia	Metre	12.00	3945
	1900 mm dia	Metre	14.00	4000
	1900 mm dia	Metre	16.00	4115
	1900 mm dia	Metre	18.00	4235
	1900 mm dia	Metre	20.00	4385
	1900 mm dia	Metre	22.00	4541
	1900 mm dia	Metre	24.00	4711
	1900 mm dia	Metre	26.00	4897
	1900 mm dia	Metre	28.00	5100
	2000 mm dia	Metre	10.00	4830

	2000 mm dia	Metre	12.00	4958
	2000 mm dia	Metre	14.00	5016
	2000 mm dia	Metre	16.00	5136
	2000 mm dia	Metre	18.00	5261
	2000 mm dia	Metre	20.00	5420
	2000 mm dia	Metre	22.00	5471
	2000 mm dia	Metre	24.00	5650
	2000 mm dia	Metre	26.00	5847
	2000 mm dia	Metre	28.00	6057
	2000 mm dia	Metre	30.00	6395
	2100 mm dia	Metre	12.00	5568
	2100 mm dia	Metre	14.00	5632
	2100 mm dia	Metre	16.00	5755
	2100 mm dia	Metre	18.00	5891
	2100 mm dia	Metre	20.00	6056
	2100 mm dia	Metre	22.00	6229
	2100 mm dia	Metre	24.00	6414
	2100 mm dia	Metre	26.00	6620
	2100 mm dia	Metre	28.00	6646
	2100 mm dia	Metre	30.00	6996
	2100 mm dia	Metre	32.00	7047
	2100 mm dia	Metre	34.00	7459
	2200 mm dia	Metre	12.00	6207
	2200 mm dia	Metre	14.00	6274
	2200 mm dia	Metre	16.00	6403
	2200 mm dia	Metre	18.00	6522
	2200 mm dia	Metre	20.00	6543
	2200 mm dia	Metre	22.00	6703
	2200 mm dia	Metre	24.00	6899
	2200 mm dia	Metre	26.00	7114
	2200 mm dia	Metre	28.00	7345
	2200 mm dia	Metre	30.00	7704
	2200 mm dia	Metre	32.00	7917
	2200 mm dia	Metre	34.00	8121
	2200 mm dia	Metre	36.00	8631
	2300 mm dia	Metre	12.00	7048
	2300 mm dia	Metre	14.00	7115
	2300 mm dia	Metre	16.00	7252
	2300 mm dia	Metre	18.00	7399
	2300 mm dia	Metre	20.00	7577
	2300 mm dia	Metre	22.00	7790
	2300 mm dia	Metre	24.00	7972
	2300 mm dia	Metre	26.00	8195
	2300 mm dia	Metre	28.00	8240
	2300 mm dia	Metre	30.00	8610
	2300 mm dia	Metre	32.00	8837
	2300 mm dia	Metre	34.00	8988
	2300 mm dia	Metre	36.00	9573
	2400 mm dia	Metre	12.00	8485

	2400 mm dia	Metre	14.00	8556
	2400 mm dia	Metre	16.00	8699
	2400 mm dia	Metre	18.00	8850
	2400 mm dia	Metre	20.00	9039
	2400 mm dia	Metre	22.00	9235
	2400 mm dia	Metre	24.00	9446
	2400 mm dia	Metre	26.00	9679
	2400 mm dia	Metre	28.00	9930
	2400 mm dia	Metre	30.00	10200
	2400 mm dia	Metre	32.00	10435
	2400 mm dia	Metre	34.00	10731
	2400 mm dia	Metre	36.00	11116
	2500 mm dia	Metre	14.00	10450
	2500 mm dia	Metre	16.00	10597
	2500 mm dia	Metre	18.00	10789
	2500 mm dia	Metre	20.00	10953
	2500 mm dia	Metre	22.00	11155
	2500 mm dia	Metre	24.00	11374
	2500 mm dia	Metre	26.00	11619
	2500 mm dia	Metre	28.00	11879
	2500 mm dia	Metre	30.00	12156
	2500 mm dia	Metre	32.00	12458
	2500 mm dia	Metre	34.00	12777
	2500 mm dia	Metre	36.00	13112
	2600 mm dia	Metre	14.00	10678
	2600 mm dia	Metre	16.00	10833
	2600 mm dia	Metre	18.00	10998
	2600 mm dia	Metre	20.00	11197
	2600 mm dia	Metre	22.00	11409
	2600 mm dia	Metre	24.00	11639
	2600 mm dia	Metre	26.00	11891
	2600 mm dia	Metre	28.00	12159
	2600 mm dia	Metre	30.00	12451
	2600 mm dia	Metre	32.00	12761
	2600 mm dia	Metre	34.00	13092
	2600 mm dia	Metre	36.00	13439
	2600 mm dia	Metre	38.00	13814
	2600 mm dia	Metre	40.00	14205
	2600 mm dia	Metre	42.00	14612
	2700 mm dia	Metre	18.00	11092
	2700 mm dia	Metre	20.00	11303
	2700 mm dia	Metre	22.00	11521
	2700 mm dia	Metre	24.00	11760
	2700 mm dia	Metre	26.00	12022
	2700 mm dia	Metre	28.00	12301
	2700 mm dia	Metre	30.00	12603
	2700 mm dia	Metre	32.00	12922
	2700 mm dia	Metre	34.00	13267
	2700 mm dia	Metre	36.00	13629
	2700 mm dia	Metre	38.00	14014

	2700 mm dia	Metre	40.00	14416
	2700 mm dia	Metre	42.00	14912
	2800 mm dia	Metre	18.00	11328
	2800 mm dia	Metre	20.00	11541
	2800 mm dia	Metre	22.00	11768
	2800 mm dia	Metre	24.00	12019
	2800 mm dia	Metre	26.00	12287
	2800 mm dia	Metre	28.00	12574
	2800 mm dia	Metre	30.00	12885
	2800 mm dia	Metre	32.00	13221
	2800 mm dia	Metre	34.00	13576
	2800 mm dia	Metre	36.00	13817
	2800 mm dia	Metre	38.00	14212
	2800 mm dia	Metre	40.00	14636
	2800 mm dia	Metre	42.00	15077
	2900 mm dia	Metre	18.00	12890
	2900 mm dia	Metre	20.00	13115
	2900 mm dia	Metre	22.00	13347
	2900 mm dia	Metre	24.00	13605
	2900 mm dia	Metre	26.00	13883
	2900 mm dia	Metre	28.00	14185
	2900 mm dia	Metre	30.00	14507
	2900 mm dia	Metre	32.00	14849
	2900 mm dia	Metre	34.00	15216
	2900 mm dia	Metre	36.00	15607
	2900 mm dia	Metre	38.00	16015
	2900 mm dia	Metre	40.00	16448
	2900 mm dia	Metre	42.00	16904
	3000 mm dia	Metre	18.00	12995
	3000 mm dia	Metre	20.00	13223
	3000 mm dia	Metre	22.00	13466
	3000 mm dia	Metre	24.00	13730
	3000 mm dia	Metre	26.00	14022
	3000 mm dia	Metre	28.00	14330
	3000 mm dia	Metre	30.00	14663
	3000 mm dia	Metre	32.00	15019
	3000 mm dia	Metre	34.00	15399
	3000 mm dia	Metre	36.00	15799
	3000 mm dia	Metre	38.00	16224
	3000 mm dia	Metre	40.00	16673
	3000 mm dia	Metre	42.00	17142

The above rates of MS Spiral pipes are based on the following raw materials cost.

MS Plates = Rs.61000/- Per MT (excluding all taxes). The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method.

Revised Cost = Cost as per the above table "R₁". R₁= Variation (Increase/Decrease) in cost (Rs. Per metre) due to change in cost of MS Plates = $(M_2 - M_1) / 1000 \times W_m$, M₁= Rs.61000/- , M₂= Cost of MS Plates (Rs. Per MT excluding all taxes) at the time of preparation of estimate, W_m=Weight of MS Plates required (Kg) per meter of pipe.

Note: The duties and taxes as applicable shall be added as per rules at the time of preparation of estimate.

15. HDPE PIPES (PE - 100 GRADE) FOR WATER SUPPLY

Sl. No	Description	6.0 kg/ sqcm (SDR 21)	8.0 kg/ sqcm (SDR 17)	10.0 kg/ sqcm (SDR 13.6)	12.5 kg/ sqcm (SDR 11)	16.0 kg/ sqcm (SDR 9)
1	2	3	4	5	6	7
I	Manufacture, Supply,& delivery of High Density Polyethylene pipes (PE-100 Grade) for water supply conforming to IS 4984-2016 including transportation to any where in T.G, but excluding GST and specials etc.,complete(Supply upto 90 mm dia in coil & above 90 mm dia straight length in 6 Metres.)					
		Rate per Metre in Rs.				
	OD 20 mm					34
	OD 25 mm					41
	OD 32 mm			40	55	66
	OD 40 mm		53	62	82	101
	OD 50 mm	65	81	97	126	158
	OD 63 mm	101	121	150	203	247
	OD 75 mm	141	177	214	285	351
	OD 90 mm	203	247	302	399	508
	OD 110 mm	341	371	446	605	743
	OD 125 mm	396	476	581	780	952
	OD 140 mm	494	598	727	983	1208
	OD 160 mm	650	784	952	1281	1557
	OD 180 mm	815	985	1202	1612	1968
	OD 200 mm	1016	1219	1478	1998	2436
	OD 225 mm	1302	1572	1923	2524	3071
	OD 250 mm	1608	1942	2370	3129	3799
	OD 280 mm	2008	2433	3005	3928	4781
	OD 315 mm	2537	3088	3758	4950	6044
	OD 355 mm	3187	3868	4702	6287	7710
	OD 400 mm	4131	4997	6068	7969	9739
	OD 450 mm	5153	6216	7583	10074	12210
	OD 500 mm	6345	7683	9353	12478	14661
	OD 560 mm	7365	8902	10804	13958	
	OD 630 mm	9264	11257	13683	16529	
	OD 710 mm	11844	14281	17355		
	OD 800 mm	14992	18141	22145		
	OD 900 mm	18995	22965			
	OD 1000 mm	23467				

Note:-

Taxes extra as applicable at the time of supply.

The resin cost adopted for the above rates are

For PE - 100 grade Rs. 96,710/- per MT. (Excluding Taxes)

The variation in cost of HDPE pipes due to increase / decrease in raw material cost shall be allowed as per the following price variation formula.

Price variation formula as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre Excluding Taxes

P1 = Existing pipe price in Rs. Per Metre Excluding Taxes

A2 = Revised price of raw material Rs. Per MT Excluding Taxes

A1 = Existing price of raw material Rs. Per MT Excluding Taxes

M = Weight of pipe in Kgs per Metre as per weight chart.

16. H.D.P.E FITTINGS

	Manufacture, Supply, & Delivery of HDPE fittings conforming to IS 4984 - 1995 including transportation to anywhere in T.G. Excluding taxes.	Rate per Each in Rs.
I (a)	PIPE ENDS LONG NECK	
	OD 50 mm	48
	OD 63 mm	61
	OD 75 mm	74
	OD 90 mm	95
	OD 110 mm	131
	OD 125 mm	237
	OD 140 mm	238
	OD 160 mm	333
	OD 180 mm	472
	OD 200 mm	607
	OD 225 mm	695
	OD 250 mm	815
	OD 280 mm	911
	OD 315 mm	1051
	OD 355 mm	2196
	OD 400 mm	2927
	OD 450 mm	4870
	OD 500 mm	5421
(b)	MS FLANGES	
	OD 50 mm	86
	OD 63 mm	111
	OD 75 mm	139
	OD 90 mm	151
	OD 110 mm	157
	OD 125 mm	215
	OD 140 mm	234
	OD 160 mm	307
	OD 180 mm	434
	OD 200 mm	559
	OD 225 mm	700
	OD 250 mm	828
	OD 280 mm	938
	OD 315 mm	1103
	OD 355 mm	1868
	OD 400 mm	2316

	OD 450 mm	3026
	OD 500 mm	3464
(c)	END CAPS	
	OD 50 mm	32
	OD 63 mm	40
	OD 75 mm	50
	OD 90 mm	66
	OD 110 mm	76
	OD 125 mm	102
	OD 140 mm	120
	OD 160 mm	184
	OD 180 mm	300
	OD 200 mm	326
	OD 225 mm	341
	OD 250 mm	485
	OD 280 mm	496
	OD 315 mm	678
	OD 355 mm	1045
	OD 400 mm	1829
	OD 450 mm	2941
	OD 500 mm	5421
(d)	REDUCERS	
	OD 50 mm x 63 mm	46
	OD 63 mm x 75 mm	66
	OD 75 mm x 90 mm	108
	OD 90 mm x 110 mm	149
	OD 110 mm x 125 mm	226
	OD 125 mm x 140 mm	313
	OD 140 mm x 160 mm	435
	OD 160 mm x 180 mm	603
	OD 180 mm x 200 mm	779
	OD 200 mm x 225 mm	957
	OD 225 mm x 250 mm	1305
	OD 250 mm x 280 mm	1854
	OD 280 mm x 315 mm	2620
	OD 315 mm x 355 mm	3005
	OD 355 mm x 400 mm	4241
	OD 400 mm x 450 mm	4401
	OD 450 mm x 500 mm	5641

(e)	TEES	
	OD 50 mm	63
	OD 63 mm	100
	OD 75 mm	120
	OD 90 mm	211
	OD 110 mm	252
	OD 125 mm	377
	OD 140 mm	519
	OD 160 mm	896
	OD 180 mm	1215
	OD 200 mm	1675
	OD 225 mm	2377
	OD 250 mm	3253
	OD 280 mm	4557
	OD 315 mm	6492
	OD 355 mm	9258
	OD 400 mm	13563
	OD 450 mm	19264
	OD 500 mm	26457
(f)	BENDS	
	OD 50 mm	40
	OD 63 mm	87
	OD 75 mm	115
	OD 90 mm	196
	OD 110 mm	256
	OD 125 mm	381
	OD 140 mm	500
	OD 160 mm	744
	OD 180 mm	1071
	OD 200 mm	1451
	OD 225 mm	2055
	OD 250 mm	2818
	OD 280 mm	4065
	OD 315 mm	5621
	OD 355 mm	7792
	OD 400 mm	11753
	OD 450 mm	17278
	OD 500 mm	23424

II	Supply and Fixing Electro Fusion Tapping saddle complying with BS EN 12201-3-2011, PN 12.5 rating & WRAS approved raw material as per BS 6920, manufactured from virgin resin of PE-80/PE-100 having blue/black colour using food grade compounded raw material for usage in drinking water system and having working pressure of 10 bar. The cost shall include testing of all materials, labour, inspection charges, transportation upto site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding of all taxes.	Rate per Each in Rs.
	SIZE	Rs.
	(Main pipe outer diameter in mm & Tapping size in Inches)	
	63x1/2"	253
	63 x3/4"	294
	63 x1"	338
	75 x1/2"	266
	75 x3/4"	306
	75 x1	336
	90 x1/2"	280
	90 x3/4"	318
	90 x1"	348
	90 x 1 1/4"	348
	90 x 1 1/2"	348
	90 x2"	348
	110x1/2"	280
	110 x3/4"	318
	110 x1"	348
	110 x 1 1/4"	348
	110x1 1/2"	348
	110x2"	348
	125x1/2"	280
	125x3/4"	340
	125x1"	370
	125x1 1/4"	370
	125x1 1/2"	370
	125x2"	370
	140x1/2"	280
	140x3/4"	324

	140x1"	360
	140x1 1/4"	360
	140x1 1/2"	360
	140x2"	360
	160 x1/2"	294
	160 x3/4"	342
	160 x1"	372
	160 x 1 1/4"	372
	160 x 1 1/2"	372
	160 x 2"	372
	200 x 1/2"	294
	200 x 3/4"	355
	200 x 1"	385
	200 x 1 1/4"	385
	200 x 1 1/2"	385
	200x 2"	385
	250 x 1/2"	372
	250 x3/4"	408
	250 x1"	444
	250 x 1 1/4"	444
	250 x1 1/2"	444
	250 x 2"	444
	315 x 1/2"	396
	315 x3/4"	432
	315x1"	492
	315x1 1/4"	492
	315x1 1/2"	492
	315x2"	492

S.No.	Description	
III	HOUSE SERVICE CONNECTIONS (COMPRESSION FITTINGS)	
A	Supply and Fixing of Compression Fittings shall comply with ISO 17885 - 2015, PN-16 rating and manufactured from virgin resin of PE-80 having blue colour. Raw material must be WRAS Approved as per BS 6920 for effect on water quality intended for human consumption. Compression fittings should have moulded-in SS 304 threaded insert outlet with thread dimension conforming to IS 554/ISO 7. The cost shall include testing of all materials, labour, inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding all taxes.	Rate per each in Rs.
1	Compression Male/ Female threaded adapter with SS Insert D20mmx1/2"	108
2	Compression Male/Female threaded adapter with SS Insert D25mmx3/4"	144
3	Compression Male/Female threaded adapterwith SS Insert D32mmx1"	201
4	Compression Male/Female threaded elbow with SS Insert D20mmx1/2"	111
5	Compression Male/Female threaded elbow with SS Insert D25mmx3/4"	150
6	Compression Male/Female threaded elbow with SS Insert D32mmx1"	208
7	Double compression elbow 20mm	50
8	Double compression elbow 25mm	69
9	Double compression elbow 32mm	99
B	HOUSE SERVICE CONNECTIONS (Composite Strap Saddle for DI/CI Pipes)	
	Supply and Fixing of Composite Strap Saddle shall be of wrap around design, PN-16 rating. Body shall be manufactured using virgin compounded PE80/PE100 polymer with Stainless steel 304 grade stirrup plate mounted with PE straps(Engineering plastic) with Nut bolt joint. Sealing between the saddle and mains shall be obtained by using an elastomer seal(Underneath projection for self interlocking).The cost shall include testing of all materials, labour, inspection charges, transportation up to site, transit insurance, loading, unloading, stacking, providing and fixing etc. Complete as specified and directed by the Departmental Engineers, but excluding all taxes.	
	(Main pipe outer diameter in mm & Tapping size in Inches)	
1	100X1/2"	473
2	100X3/4"	527
3	100X1"	562
4	150X1/2"	494
5	150X3/4"	548
6	150X1"	583
7	200X1/2"	515
8	200X3/4"	569
9	200x1"	604
C	HOUSE SERVICE CONNECTIONS (Regulating Brass ferrule)	
	The cost shall include testing of all materials, labour, Inspection charges, Transportation upto site, transit insurance, loading, unloading,stacking,providing and fixing etc. complete as specified and directed by departmental engineers, but excluding of all taxes.	
1	1/2"	143
2	3/4"	234
3	1"	408

D	Electrofusion Couplers	
1	EF Coupler D20mm PE 100BK 4PIN	34
2	EF Coupler D25mm PE 100BK 4PIN	36
3	EF Coupler D32mm PE 100BK 4PIN	38
4	EF Coupler D40mm PE 100BK 4PIN	65
5	EF Coupler D50mm PE 100BK 4PIN	80
6	EF Coupler D63mm PE 100BK 4PIN	95
7	EF Coupler D75mm PE 100BK 4PIN	214
8	EF Coupler D90mm PE 100BK 4PIN	221
9	EF Coupler D110mm PE 100BK 4PIN	288
10	EF Coupler D125mm PE 100BK 4PIN	384
11	EF Coupler D140mm PE 100BK 4PIN	1111
12	EF Coupler D160mm PE 100BK 4PIN	985
13	EF Coupler D180mm PE 100BK 4PIN	1070
14	EF Coupler D200mm PE 100BK 4PIN	1287
15	EF Coupler D225mm PE 100BK 4PIN	1220
16	EF Coupler D250mm PE 100BK 4PIN	1636
17	EF Coupler D280mm PE 100BK 4PIN	2064
18	EF Coupler D315mm PE 100BK 4PIN	3005
E	EF ELBOW 90 Degree	
1	EF Elbow D20mm PE 100BK 4PIN	80
2	EF Elbow D25mm PE 100BK 4PIN	90
3	EF Elbow D32mm PE 100BK 4PIN	100
4	EF Elbow D40mm PE 100BK 4PIN	108
5	EF Elbow D63mm PE 100BK 4PIN	206
6	EF Elbow D75mm PE 100BK 4PIN	274
7	EF Elbow D90mm PE 100BK 4PIN	540
8	EF Elbow D110mm PE 100BK 4PIN	762
9	EF Elbow D125mm PE 100BK 4PIN	863
F	EF ELBOW 45 Degree	
1	EF Elbow D75mm PE 100BK 4PIN	309
2	EF Elbow D90mm PE 100BK 4PIN	615
G	EF EQUAL TEE	
1	EF Equal Tee D20mm PE 100BK 4PIN	75
2	EF Equal Tee D25mm PE 100BK 4PIN	82
3	EF Equal Tee D32mm PE 100BK 4PIN	96
4	EF Equal Tee D40mm PE 100BK 4PIN	127
5	EF Equal Tee D63mm PE 100BK 4PIN	307
6	EF Equal Tee D75mm PE 100BK 4PIN	402
7	EF Equal Tee D90mm PE 100BK 4PIN	573
8	EF Equal Tee D110mm PE 100BK 4PIN	645
9	EF Equal Tee D125mm PE 100BK 4PIN	1107
H	EF REDUCER	
1	EF Reducer D25X20mm PE 100BK 4PIN	40
2	EF Reducer D32X20mm PE 100BK 4PIN	44
3	EF Reducer D32X25mm PE 100BK 4PIN	49
4	EF Reducer D40X32mm PE 100BK 4PIN	62

5	EF Reducer D63X32mm PE 100BK 4PIN	103
6	EF Reducer D63X40mm PE 100BK 4PIN	109
7	EF Reducer D63X50mm PE 100BK 4PIN	114
8	EF Reducer D75X63mm PE 100BK 4PIN	242
9	EF Reducer D90X50mm PE 100BK 4PIN	334
10	EF Reducer D90X63mm PE 100BK 4PIN	474
11	EF Reducer D90X75mm PE 100BK 4PIN	495
12	EF Reducer D110X63mm PE 100BK 4PIN	570
13	EF Reducer D110X75mm PE 100BK 4PIN	593
14	EF Reducer D110X90mm PE 100BK 4PIN	616
15	EF Reducer D125X63mm PE 100BK 4PIN	737
16	EF Reducer D125X90mm PE 100BK 4PIN	793
I	EF END CAP	
1	EF End Cap D20mm PE 100BK 4PIN	72
2	EF End Cap D25mm PE 100BK 4PIN	74
3	EF End Cap D32mm PE 100BK 4PIN	76
4	EF End Cap D40mm PE 100BK 4PIN	200
5	EF End Cap D50mm PE 100BK 4PIN	259
6	EF End Cap D63mm PE 100BK 4PIN	176
7	EF End Cap D75mm PE 100BK 4PIN	412
8	EF End Cap D90mm PE 100BK 4PIN	529
9	EF End Cap D110mm PE 100BK 4PIN	626
10	EF End Cap D125mm PE 100BK 4PIN	686
11	EF End Cap D140mm PE 100BK 4PIN	1463
J	PP Clamp Saddle shall comply with AS/NZS 4793 or relevant international standards-Mechanical tapping saddles for water works purposes and designed for use with PVC/PE pipe as per IS 4985/ IS 4984 respectively. These saddles should be contoured to fit around the pipe. PP Saddles shall be blue with moulded SS female threaded outlets. Seal shall be thermoplastic elastomer rubber suitable for drinking water and SS nut-bolt-washer. Maximum working pressure rating of 10 bar.	Rate per each in Rs.
1	63X1/2"	133
2	63X3/4"	133
3	63X1"	133
4	75X1/2"	155
5	75X3/4"	155
6	75X1"	155
7	90X1/2"	177
8	90X3/4"	177
9	90X1"	177
10	110X1/2"	213
11	110X3/4"	213
12	110X1"	213
13	125X1/2"	254
14	125X3/4"	254
15	125X1"	254
16	140X1/2"	302
17	140X3/4"	302

18	140X1"	302
19	160X1/2"	361
20	160X3/4"	371
21	160X1"	371
22	180X1/2"	377
23	180X3/4"	471
24	180X1"	524
25	200X1/2"	398
26	200X3/4"	492
27	200X1"	545

Note: The above rates (Items from D to J) are exclusive of GST.

17. PVC PIPES

Sl. No.	Description	4.0 Kgs/cm ²	6.0 Kgs/cm ²	10.0 Kgs/cm ²
1	2	3	4	5
1	Manufacture, Supply and Delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (3 rd revision) with bell ends (Socket) as per specification in light Grey/Natural Ivory Grey/ Any other Color (except White) inclusive of transportation to the sub-divisional stores anywhere in TG excluding Taxes.			
	DIA IN MM Rate/Metre	Rs.	Rs.	Rs.
	20			17
	25			24
	32			34
	40		35	55
	50		51	84
	63	56	82	122
	75	82	112	177
	90	113	163	252
	110	165	233	376
	125	214	298	489
	140	266	383	607
	160	351	498	797
	180	447	640	1020
	200	543	780	1243
	225	726	1048	1666
	250	841	1284	2025
	280	1102	1621	2562
	315	1394	2037	3232
	355	1832	2658	
	400	2310	3380	

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs.73,500/- per MT (Basic rate excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre, P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT, A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Metre as per weight chart.

18. NON- PRESSURE P.V.C.U PIPES

Code No	Description	Rate per Meter in Rs.
1	2	3
	Manufacture, Supply, & Delivery of unplasticized Non-pressure polyvinyl chloride(PVC-U) pipes of dark (any shade of brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) <u>with solvent cement jointing</u> as per specification inclusive of transportation to the sub-divisional stores anywhere in T.G, excluding Taxes.	
	Pipe Series (S25)	
	OD 160 mm	295
	OD 200 mm	452
	OD 250mm	699
	OD 315 mm	1104
	Pipe Series (S20)	
	OD 125 mm	232
	OD 160 mm	367
	OD 200 mm	557
	OD 250mm	869
	OD 315 mm	1365
	Pipe Series (S16.5)	
	OD 110 mm	202
	OD 125 mm	272
	OD 160 mm	427
	OD 200 mm	663
	OD 250mm	1025
	OD 315 mm	1623

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs. 73,500/- per MT (Basic rate, excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre

P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Meter as per weight chart.

19. NON- PRESSURE P.V.C.U PIPES

Code No	Description	Rate per Meter in Rs.
1	2	3
	Manufacture, supply, & delivery of un-plasticized Non-Pressure Polyvinyl Chloride(PVC-U) pipes of dark (any shade of Brown) for use in underground drainage & sewerage system conforming to IS 15328/2003) <u>with Elastomeric Seal Ring Joints</u> (Ringtite PVC Pipes)as per specification inclusive of transportation to the Sub-Divisional stores any where in T.G, excluding Taxes.	
	Pipe Series (S25)	
	OD 160 mm	317
	OD 200 mm	482
	OD 250mm	746
	OD 315 mm	1175
	Pipe Series (S20)	
	OD 125 mm	247
	OD 160 mm	389
	OD 200 mm	592
	OD 250mm	922
	OD 315 mm	1448
	Pipe Series (S16.5)	
	OD 110 mm	216
	OD 125 mm	290
	OD 160 mm	455
	OD 200 mm	701
	OD 250mm	1090
	OD 315 mm	1718

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

The resin cost adopted for the above rates is Rs. 73,500/- per MT (Basic rate excluding Taxes)

The variation in cost of PVC pipes due to increase / decrease in raw material cost shall be allowed subject to the following price variation formula.

The price variation formula to be adopted is as follows:

$P2 = P1 + (A2 - A1) / 1000 \times M \times 0.95$ (for increase in raw material cost)

$P2 = P1 - (A1 - A2) / 1000 \times M \times 0.95$ (for decrease in raw material cost)

P2 = Revised pipe price in Rs. Per Metre

P1 = Existing pipe price in Rs. Per Metre

A2 = Revised price of raw material Rs. Per MT

A1 = Existing price of raw material Rs. Per MT

M = Weight of pipe in Kgs per Metre as per weight chart.

20. CENTRIFUGALLY CAST (SPUN) IRON PRESSURE PIPES

Sl. No.	Description	Unit	Rate in Rs.		
1	2	3	4	5	6
I	Socket and Spigot Centrifugally Cast (Spun) Iron pressure pipes for water, Gas and Sewage conforming to specification No: IS 1536/2001 (third revision) with amdt. No: 1 & 2 in standard lengths of 3.66 m, 4 m, 4.5m, 5 m, 5.5 m & 6 m and details given below, suitable either for lead jointing or rubber gasket (push on) jointing at purchasers option at ex-factory excluding transportation & taxes.		LA Class (Rs)	A Class (Rs)	B Class (Rs)
	Nominal dia (in MM)				
	80	Rmt	1316	1429	1536
	100	Rmt	1614	1775	1896
	125	Rmt	2064	2254	2428
	150	Rmt	2534	2775	2990
	200	Rmt	3702	4018	4345
	250	Rmt	4988	5431	5875
	300	Rmt	6430	7033	7618
	350	Rmt	8171	8863	9614
	400	Rmt	9947	10870	11732
	450	Rmt	12017	13202	14240
	500	Rmt	14149	15410	16673
	600	Rmt	18771	20493	22197
	700	Rmt	24495	26761	28913
	750	Rmt	27435	29995	32539
	800	Rmt	30709	33460	36196
	900	Rmt	37417	42107	44234
	1000	Rmt	44952	49104	53071
II	Conveyance of Centrifugally Cast (Spun) Iron Pressure Pipes and accessories including loading at Factory, un-loading at site and stacking for the following sizes. (The Minimum distance/lead in Km for destination below 100 Km to be taken as 100 Km)		Class		
	SIZE IN MM	UNIT	LA	A	B
	80	Per KM/RMT	0.34	0.34	0.34
	100	Per KM/RMT	0.34	0.34	0.34
	125	Per KM/RMT	0.50	0.50	0.50
	150	Per KM/RMT	0.50	0.50	0.50
	200	Per KM/RMT	0.85	0.85	0.85
	250	Per KM/RMT	1.04	1.04	1.04
	300	Per KM/RMT	1.39	1.39	1.39
	350	Per KM/RMT	1.90	1.90	1.90

	400	Per KM/RMT		2.22	2.22	2.22
	450	Per KM/RMT		2.59	2.59	2.59
	500	Per KM/RMT		3.09	3.09	3.09
	600	Per KM/RMT		3.09	3.09	3.09
	700	Per KM/RMT		3.09	3.09	3.09
	750	Per KM/RMT		5.16	5.16	5.16
	800	Per KM/RMT		8.76	8.76	8.76
	900	Per KM/RMT		8.76	8.76	8.76
	1000	Per KM/RMT		8.76	8.76	8.76

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$$P2 = P1 + (R2 - R1) / 1000 * M * 1.0$$

Where M = Weight of pipe in kg per metre.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron (Rs per MT excluding Taxes) at the time of preparation of estimate.

R1 = Price of Pig Iron (Rs per MT excluding Taxes) at the time of preparation of SoR

= Rs.51,000/-

21. DUCTILE IRON PRESSURE PIPES

Sl. No.	Description	Unit	Rate in Rs.	
1	2	3	4	5
1	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage with <u>Socket Spigot ends</u> conforming to IS.: 8329/2000 in standard working lengths of 4, 5 5.5 & 6 meter for classification K9 & K7 suitable for push-on-joint (rubber gasket d jointing) with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm	Rmt	K7	K9
	80	Rmt	922	1092
	100	Rmt	1154	1375
	150	Rmt	1632	2050
	200	Rmt	2237	2746
	250	Rmt	2980	3609
	300	Rmt	3809	4571
	350	Rmt	4780	5697
	400	Rmt	5777	6852
	450	Rmt	6906	8190
	500	Rmt	8199	9528
	600	Rmt	10888	12575
	700	Rmt	14024	16169
	750	Rmt	15682	18150
	800	Rmt	17387	20045
	900	Rmt	21188	24411
	1000	Rmt	25174	28999
	1100	Rmt	-	33444
	1200	Rmt	-	38999
2	Centrifugally cast (Spun) Ductile Iron pressure pipes for water, gas and sewage <u>with plain ends</u> conforming to IS:8329/2000in standard working lengths of 4, 5, 5.5 & 6 meter for classification K9 & K7 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm		K7	K9
	100	Rmt	1013	1274
	150	Rmt	1470	1889
	200	Rmt	2032	2557
	250	Rmt	2650	3381
	300	Rmt	3441	4275
	350	Rmt	4309	5314
	400	Rmt	5191	6387
	450	Rmt	6176	7562
	500	Rmt	7326	8949
	600	Rmt	9679	11624

	700	Rmt	12654	14738
	750	Rmt	14117	16515
	800	Rmt	15653	18234
	900	Rmt	18925	22050
	1000	Rmt	22499	26211
	1100	Rmt		28804
	1200	Rmt		33466
3	Centrifugally cast (Spun) Ductile Iron pressure pipes with <u>flanged (welded) ends</u> for water, gas, sewage conforming to IS: 8329/2000 in standard working lengths of 1,2,3, 4, 5 mts for classification K9 with cement mortar lining inside the pipes with outside zinc coating. Rates are ex-factory, excluding transportation & taxes.			
	Nominal Dia in mm		1.0 Mt. Length	2.0 Mt. Length
	80	Each	3578	4673
	100	Each	3896	5310
	150	Each	5580	7678
	200	Each	7503	10399
	250	Each	9837	13697
	300	Each	12424	17319
	350	Each	19160	25217
	400	Each	23047	30357
	450	Each	27792	36423
	500	Each	33803	43917
	600	Each	47781	61082
	700	Each	56805	73685
	800	Each	70127	91008
	900	Each	83686	108936
	1000	Each	104038	133168
	1100	Each	121538	153476
			3.0 Mt. Length	4.0 Mt. Length
	80	Each	5694	6587
	100	Each	6722	9152
	150	Each	9778	11271
	200	Each	13299	15497
	250	Each	17558	20518
	300	Each	22207	26058
	350	Each	31278	35532
	400	Each	37666	42413
	450	Each	45048	50575
	500	Each	54031	60426
	600	Each	74382	82396
	700	Each	90565	101052
	800	Each	111889	124933

	900	Each	134188	150153	
	1000	Each	167236	185254	
	1100	Each	185835	223368	
			5.0 Mt. Length		
	80	Each	8533		
	100	Each	9035		
	150	Each	13358		
	200	Each	18393		
	250	Each	24375		
	300	Each	30957		
	350	Each	41592		
	400	Each	49714		
	450	Each	59198		
	500	Each	70529		
	600	Each	95674		
	700	Each	117910		
	800	Each	145786		
	900	Each	179219		
	1000	Each	215233		
	1100	Each	246420		
4	Conveyance of Ductile Iron Pressure Pipes and accessories including loading at Factory, unloading at site and stacking for the following sizes		Class		Welded Double Flanged Pipes
	SIZE IN MM	UNIT			
	80	Per KM/RMT	0.25	0.27	0.38
	100	Per KM/RMT	0.31	0.31	0.44
	150	Per KM/RMT	0.44	0.44	0.58
	200	Per KM/RMT	0.44	0.58	0.87
	250	Per KM/RMT	0.58	0.73	1.17
	300	Per KM/RMT	0.87	0.87	1.46
	350	Per KM/RMT	1.02	1.17	1.75
	400	Per KM/RMT	1.17	1.31	2.05
	450	Per KM/RMT	1.46	1.62	2.49
	500	Per KM/RMT	1.75	1.90	2.91
	600	Per KM/RMT	2.49	2.49	3.80
	700	Per KM/RMT	3.65	3.65	5.56
	750	Per KM/RMT	4.38	4.38	6.70
	800	Per KM/RMT	7.45	7.45	11.07
	900	Per KM/RMT	7.45	7.45	11.07
	1000	Per KM/RMT	7.45	7.45	11.07
	1100	Per KM/RMT	7.45	7.45	
	1200	Per KM/RMT	7.96	7.96	

5	Supply and Delivery of Polyethylene (PE) Sleeves for Ductile Iron Pipes used to guard the pipe against corrosion.			
	DIA IN MM			
	100 mm dia		RMT	41.00
	150 mm dia		RMT	50.00
	200 mm dia		RMT	64.00
	250 mm dia		RMT	74.00
	300 mm dia		RMT	81.00
	350 mm dia		RMT	91.00
	400 mm dia		RMT	127.00
	450 mm dia		RMT	127.00
	500 mm dia		RMT	154.00
	600 mm dia		RMT	154.00
	700 mm dia		RMT	200.00
	750 mm dia		RMT	200.00
	800 mm dia		RMT	200.00
	900 mm dia		RMT	227.00
	1000 mm dia		RMT	227.00
	1100 mm dia		RMT	227.00
6	Additional price for HAC(high alumina cement motar lining)			
	DIA IN MM			
	100 mm dia		RMT	57.00
	150 mm dia		RMT	85.00
	200 mm dia		RMT	113.00
	250 mm dia		RMT	149.00
	300 mm dia		RMT	188.00
	350 mm dia		RMT	233.00
	400 mm dia		RMT	278.00
	450 mm dia		RMT	330.00
	500 mm dia		RMT	386.00
	600 mm dia		RMT	509.00
	700 mm dia		RMT	649.00
	750 mm dia		RMT	725.00
	800 mm dia		RMT	806.00
	900 mm dia		RMT	978.00
	1000 mm dia		RMT	1167.00
	1100 mm dia		RMT	1389.00
	1200 mm dia		RMT	1539.00

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P2 = P1 + (R2 - R1) / 1000 * M * 0.96$, Where

M = Weight of pipe in kg per metre as per I.S.8329-1994.

P2 = Revised rate of pipe in Rs. per Rmt.

P1 = Rate of pipe in Rs. per Rmt. as per above table.

R2 = Price of Pig Iron(Rs per MT excluding Taxes) at the time of preparation of estimate.

R1 = Price of Pig Iron(Rs per MT excluding Taxes) at the time of preparation of SoR =Rs.51,000/-

22. DUCTILE IRON FITTINGS

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Centrifugally cast (spun) Ductile Iron Fittings conforming to IS:9523/2000 having dimensions as per table. The rates mentioned here under are for fittings, zinc coated externally with inside mortar lining (with finishing as per class 13/IS 9523/2000) (ex-works) Excluding Transportation and Taxes.		
	For Double Socket branch flange Tee, All Socket Tees, Reducers, Flanged Sockets, Flanged Spigot, Double Socket Duck Foot Bend, Double Flange Duck/Foot bend, all socket Cross, all Flange Tee, all Flange Cross, Double Flange Reducer, Blank Flange, Mechanical Joints, Double Socket Bends, Double Flanged Bends etc.		
	Upto 500 mm dia	Kg	134.00
	Above 500 mm dia	Kg	147.00

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

23. RUBBER GASKETS SUITABLE FOR C.I/ D.I. S/S PIPES

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Manufacture as per BIS:12820/2004 with S.B.R. Quality Rubber conforming to BIS: 5382/85, supply and delivery of Rubber Gaskets suitable for C.I/ D.I S/S pipes anywhere in T.G. F.O.R. Destination departmental stores including cost of material, loading, incidental handling with companies standard packing, transportation, unloading & stacking but excluding taxes.		
	80mm dia	Each	72
	100mm dia	Each	111
	125mm dia	Each	132
	150mm dia	Each	163
	200mm dia	Each	198
	250mm dia	Each	220
	300mm dia	Each	336
	350mm dia	Each	425
	400mm dia	Each	462
	450mm dia	Each	497
	500mm dia	Each	690
	600mm dia	Each	818
	700mm dia	Each	1087
	750mm dia	Each	1208
	800mm dia	Each	1447
	900mm dia	Each	1747
	1000mm dia	Each	1911

24. CI PIPES AND SPECIALS

Sl. No.	Description	Quality or sort	Rate/ Kg including packing, forwarding, Transit risk and delivery any where in T.G. Rs.
1	2	3	4
	Manufacture, Supply and Delivery of Cast Iron Fittings (spl.) Conforming to IS. No. 7181/1986, 5531/1988, 3950/1979 and C.I.D Joints conforming to IS No.8794/1988 at site of work anywhere in T.G. Including, loading, unloading, transportation to site of work stacking at site transit risk and package, excluding all taxes.	I.S. No. 7181/1986 5531/1988 3950/1979 & 8794/1988	71.00

Foot Note: The rate of CI pipes, CI Specials and CID Joints etc., which are to be incorporated in the SoR are based on the following raw materials cost.

Pig Iron: Rs.51,000/- per M.T.(Excluding Taxes)

Coke : Rs.35,900/- per M.T. .(Excluding Taxes)

The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method. For every increase/decrease of Rs.1000/- in the cost of raw materials or part there of proportionately.

In respect of Pig Iron: The increase/decrease in cost of CI Specials per Kg is 3.43%.

In respect of coke: The increase/decrease in cost of CI Specials per Kg is 0.67%.

The above price is at site of work , Taxes extra as applicable at the time of supply.

Note: The taxes as applicable shall be added as per rules at the time of preparation of estimate.

25. WATER HAMMER CONTROL DEVICES**(Rate Each in Rs.)**

Sl. No.	Description	TEST PRESSURE				Additional charges for Flanged ended valves
		10 Kgs/cm ²	15 Kgs/cm ²	20 Kgs/cm ²	25 Kgs/cm ²	
1	2	3	4	5	6	7
1	Manufacture, supply and delivery of zero velocity valve/ PSLV with CI body with flanged ends as per AWWA, ex-factory excluding transportation etc., complete.					
	DIA IN MM Rate/Each	Rs.	Rs.	Rs.	Rs.	
	150	66761	77929	82534	90790	
	200	69746	80207	86224	94844	
	250	78693	90496	97284	107013	
	300	88559	101843	109484	120430	
2	Manufacture, Supply and delivery of zero velocity valve/ PSLV with MS Fabricated Body with Plain ends. as per AWWA, Ex-factory excluding transportation etc. Complete.					
	DIA IN MM Rate/ Each	Rs.	Rs.	Rs.	Rs.	Rs.
	350	94324	108471	116607	128266	8173
	400	104261	119899	128891	141786	9854
	450	121263	139453	149912	164904	11776
	500	140150	161170	173259	190585	12740
	525/550	150537	171131	188479	207326	16464
	600	168552	193833	208371	229208	23486
	650	188674	207544	235905	254653	26559
	700	219922	242033	274962	296954	31726
	750	243595	267989	304524	328919	35619
	800	296742	341256	366847	403530	40138
	900	352697	405602	427824	479625	48552
	1000	427824	427824	427824	594508	61649
	1050	432102	432102	432102	625969	64116
	1100	545067	618062	673855	741242	71385
	1200	656037	721655	822120	885694	80758
	1400	984056	1082480	1233180	1328536	113566
	1500	1146593	1261241	1433209	1547739	115837
	1600	1169524	1286463	1461874	1578691	121137

3	Manufacture, Supply and delivery of Air Cushion valves / Quick Released damped Air Valves (QRDA) as per AWWA, Ex-factory excluding transportation etc., complete.					
	DIA IN MM Rate/Each	Rs.	Rs.	Rs.	Rs.	
	100	61050	70209	77228	84948	
	150	92776	106693	117361	129097	
	200	99025	113877	125267	137793	
4	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves				

Note: The taxes as applicable shall be added as per rules at the time of preparation of estimate.

26. CAST STEEL VALVES

Sl.No.	Description				
1	2	3	4	5	6
1	Manufacture, Supply and Delivery of Cast Carbon Steel rising / Non rising spindle sluice valve design standard as per IS:14846/2000 for Water Supply Scheme with SS Spindle & SS Working parts the grade of Cast Steel for body Bonnet, Dome, Stool Cover, Wedge, Stuffing Box, Gland Thrust Plate, shall be as per IS : 1030 / 1998. (The valve shall be used for High pressure schemes & pumping stations) excluding transportation etc., complete. ISI Marked	Class-150 Body 425PSI Seat 300 PSI PN-20	Class-300 Body 1100 PSI Seat 750 PSI PN-30	for Enclosed Spur Gear Arrangement.	
	Rate/Each			Class 150	Class 300
	DIA IN MM	Rs.	Rs.	Rs.	Rs.
	40	5443	10885		
	50	8968	16326		
	65	11223	20408		
	80	13461	24490		
	100	17952	32652		
	125	23023	41862		
	150	26936	48978		
	200	43504	88435	53246	97289
	250	61231	139191	70973	148047
	300	77349	175820	87089	184675
	350	103142	234428	116424	246503
	400	209520	476181	222803	488256
	450	234846	523275	248130	535352
	500	276289	627930	289572	640006
	600	315429	715841	328713	727917
	700	610138		623421	
	750	656187		674783	
	800	759795		778391	
	900	897941		916537	
	1000	1151206		1169802	
	1100	1243302		1261898	
	1200	1404471		1423067	

2	Manufacture, Supply and delivery of Cast Carbon Steel Bolted Cover Non Return Valve as per IS: 5312 / Part1 /2004. Round body heavy duty material spec. As per IS:1030/1998 with SS Hinge & Seat Rings. excluding transportation etc., complete. Dia in mm.				
	Rate/Each Rs.	PN-20	PN-30		
	40	5410	9838		
	50	8051	14651		
	65	10061	18315		
	80	12075	21978		
	100	16567	29305		
	125	20722	37677		
	150	22784	41443		
	200	34536	75351		
	250	48351	125586		
	300	69072	156983		
	350	92097	209311		
	400	188798	429086		
	450	211822	481413		
	500	248661	565138		
	600	287801	654093		
3	Manufacture, Supply and delivery of Cast Carbon Steel Multi Door Type Non return Valve as per IS; 5312/ Part II / 1984 Heavy duty material spec. as per 1030/1998 with SS hinges & Seat Rings excluding transportation and GST etc., complete.	PN-20			
		Rate/Each			
	500	418619			
	600	523275			
	700	627930			
	750	774448			
	800	1151206			
	900	1381446			
	1000	1507032			
	1100	1779136			
	1200	1800067			

4	Manufacture, Supply and delivery of Cast Carbon Steel D/F Butter fly Valves conforming to IS; 13095/1991 manually heavy duty Gear operation, excluding transportation and GST etc., complete.				
	DIA IN MM Rate/Each	PN- 1.0/1.6	PN-2.5		
	300	79899	99601		
	350	107481	135062		
	400	129153	167459		
	450	156514	198105		
	500	178405	227657		
	600	207957	267059		
	700	326164	404968		
	750	404968	503473		
	800	444370	552726		
	900	503473	631531		
	1000	798991	996002		
	1100	996002	1191518		
	1200	1193013	1291518		
	1300	1597980	1784047		
	1400	1685540	1882552		
	1500	1784047	1981058		
	1600	2079563	2375081		
	1800	2572092	2769103		
	2000	3557148	3852664		
5	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	5% on basic cost of valves			

Note : Taxes as applicable shall be added as per rules at the time of preparation of estimate.

27. DI D/F VALVES**Rate/Each in Rs.**

Sl. No.	Description	TEST PRESSURE			
1	2	3	4	5	6
1	Manufacture, supply and delivery of Single Chamber DI Air Valve with Body and cover in Ductile Iron of grade GGG-40/SG-400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions. All internal parts such as float, shell etc., all cover bolts, of stainless steel, and Gaskets and seals of EPDM food grade quality Epoxy powder coating (EP-P) inside and outside colour blue. Drilled as per requirement of the dept.				
	DIA IN MM	PN 10	PN 16	PN 25	
	25 (Screwed End)	8559	8559		
	32 (Screwed End)	17023	17023		
	40 (Screwed End)	17870	17870		
	50	30745	30745	39560	
	80	41016	41016	41016	
	100	47888	47888	55070	
	150	58298	58298	66625	
	200	63850	63850	74260	
	300	103455	103455	113905	
2	Manufacture, Supply and delivery of DI D/F Gate Valves (Soft Seated) Resilient seated soft sealing gate valves (Sluice valves) with body bonnet of ductile cast iron of grade GGG-40/ SG- 400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions, wedge fully rubber lined with EPDM food grade quality and seals of NBR and the valves should be of vacuum tight and 100% leak proof with face to face dimensions as per BS5163-89/IS14846-2000/DIN 3202 F 4. All the valves should be with Electrostatic powder coating both inside and outside pocket less body passage. Drilled as per requirement of the dept.				
	DIA IN MM	PN 10	PN 16	PN 25	
	50	7360	7360	12439	
	80	9426	9426	15337	
	100	12434	12434	17389	
	150	19577	19577	29004	
	200	32532	32532	48920	
	250	45058	45058	72663	
	300	68098	68098	117862	
	350	206179	206179	344900	

	400	216249	216249	350810	
	450 With By-pass & Gear	372041	372041	699327	
	500 With By-pass & Gear	395083	395083	742639	
	600 With By-pass & Gear	508754	508754	956304	
3	Manufacture, Supply and delivery of DI D/F <u>Butterfly Valves</u> with GGG-40/SG-400/15 or GGG-50/SG-500/7 or equivalent grade as per I.S.3896-part 2-1985 and subsequent revisions, Double eccentrically Disc., with renewable soft seal on the disc and Body seat face of stainless steel / nickel weld overlay, with powder or liquid Epoxy coating with minimum thickness of 250 microns applied on both body and disc inside and outside. Face to face dimensions as per AWWA C 504 or BS 5155 or IS:13095. Drilled as per requirement of dept.				
	DIA IN MM	PN 10	PN 16	PN 25	PN 40
	150	78461	78461	80993	107529
	200	85456	88230	103668	130748
	250	99568	102462	120012	183215
	300	118806	122304	136415	192382
	350	135933	148297	172720	209389
	400	171210	193973	225841	320123
	450	187958	208609	265678	
	500	189744	223971	356159	395586
	600	248686	351120	413392	433457
	700	490950	518029	778576	
	800	532249	554677	1136362	
	900	696076	696076		
	1000	872565	872565	1647797	
	1100	1003450	1003450		
	1200	1169137	1169137	1840795	
	1400	2512703	2512703		
	1600	2996167	2996167		
	1800	3674971	3674971		
	2000	6277801	6277801		
	2200	9063238	9063238		

4	Manufacture, Supply and delivery of DI D/F <u>Swing Check Valves</u> Slanted/Straight seated with metallic, corrosion proof and wear resistant seat faces resilient seat, Body and Disc of ductile cast iron GGG-40/SG 400/15 or GGG-50/SG-500/7 or equivalent grade as per IS 3896(part2)-1985 and subsequent revisions. All the inside and outside of the body is to be coated with double coating of epoxy liquid. Drilled as per requirement of dept.. Specification and Dimensions as per I.S 5312 or equivalent codes.				
	DIA IN MM	<u>PN 10</u>	<u>PN 16</u>	<u>PN 25</u>	<u>PN 40</u>
	100	31090	34544		
	150	52206	58007		
	200	79170	83880	123017	161019
	250	87128	92406	149407	188790
	300	109214	115710	181886	230443
	350	128539	136253	206897	251555
	400	156146	165484	209494	272424
	500	198533	210552	265521	349402
	600	297869	315775	391423	505935
	700	429941	468873	573115	726768
	800	537581	585885	722674	915539
5	Manufacture, supply and delivery of DI (Ductile Iron) Wafer Butterfly valves conforming to IS 13095 (and its amendments). With hand lever below 150 mm, with Worm gear for 200 mm and above.				
	DIA IN MM	<u>PN 10</u>	<u>PN 16</u>		
	40	5330	5330		
	50	5330	5330		
	65	5767	5767		
	80	6289	6892		
	100	8842	9166		
	125	11111	11111		
	150	15005	15330		
	200	20359	20359		
	250	27092	27092		
	300	38121	38121		
	350	46260	50183		

6	Manufacture and supply of “Air Release - Vacuum Break - Surge Alleviation” Valve for potable water. Construction material Cylindrical Body of Ductile Iron GGG-50/SG-500-7, Three cylindrical Floats of High Density Poly Ethylene. Baffle Plate, Orifice venture and all construction bolts of stainless steel, coating internally and externally. Electrostatically applied epoxy (1) Flange connection as per IS 1538, (2) Female (BSP/NPT Threaded for sizes 25 mm				
	DIA IN MM	<u>PN 10</u>	<u>PN 16</u>	<u>PN 25</u>	
	25 mm dia	14073	-	-	
	50 mm dia	-	45353	45353	
	80 mm dia	-	71151	71151	
	100 mm dia	-	78454	78454	
	150 mm dia	-	160890	160890	
	200 mm dia	-	241636	241636	
7	Manufacturer and supply of Metal Seated Gate Valve Non- Rising Stem with by-pass & gear operated, for water and sewage applications& dimensions conforming to IS 14846-2000. Material construction Body, Bonnet, Wedge and Distance Piece of ductile iron GGG-50/SG500/7 DIN1693 or equivalent. Body seat, Wedge seat and Stem nut of Aluminum Bronze BS EN 1982 CC331G/equivalent, Stem of Stainless steel BS EN 100881.4057 or equivalent. 'O' Seal Body/Cover is of EPDM food grade Quality. Fastners is of Steel Sheraplex coated to BS 3692 Gr 8.8 or equivalent. Body and Bonnet internally and externally blue two pack epoxy to WIS 4-52-01 Class B. Leakage tested for seat 1.1 PN and body 1.5 x PN. Flange connection as per IS 1538, ISI Marked.				
	DIA IN MM	<u>PN 10</u>	<u>PN 16</u>		
	DN700	1303581	1303581		
	DN800	1648187	1648187		
	DN 900	1863121	1863121		
	DN 1000	2087471	2087471		
	DN 1100	2844366	2844366		
	DN 1200	3233031	3233031		

NOTE:-All the prices are ex-go down /ex-factory. Taxes Extra as applicable at the time of supply. Packaging and Transportation extra at 5% on basic cost. The duties and taxes as applicable may be added as per rules at the time of preparation of estimate. The grade of DI & conformation to specifications shall be certified by a third party Quality Control Agency approved by indenting authority at the cost of supplier.

28. SFRC MAN-HOLE FRAME WITH COVERS

Sl.No.	Description	Unit	Rate in Rs.
1	2	3	4
I	Manufacture as per BIS:12592 (Part 1&2) Supply & Delivery of manhole covers and frames with ISI marking anywhere in T.G., F.O.R. destination including, loading, un-loading & stacking at site but excluding all taxes, as applicable. <u>I.S.I Mark</u>		Rs.
a)	M.D. -10 with 500mm dia clear opening	Each	1965
b)	H.D.-20 with 500mm dia clear opening	Each	2533
c)	H.D.-10with 560mm dia clear opening	Each	1987
d)	H.D.-20 with 560mm dia clear opening	Each	2716
e)	H.D.-35 with 560mm dia clear opening.	Each	2911
f)	24x24 MD 10	Each	2142
g)	24x18 MD 10	Each	1971
h)	24x24 HD 20	Each	2408
i)	24x18 HD 20	Each	2453
II	Manufacture as per company's standard specification supply and delivery of encapsulated plastic steps for man holes anywhere in T.G. including cost of materials packing as per company's standards, loading, transportation, unloading and stacking at site of work etc, complete but excluding taxes and others etc., as applicable.	Each	195

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

29. CI and M.S. DISMANTLING JOINTS

Sl.No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Manufacture, Supply and Delivery of C.I Dismantling Joints with both side flange end suitable for installation in between flange end pipes. These rates are excluding all Taxes and transportation charges etc., complete.		
	Nominal Dia. In MM		
	50	Each	5078
	80	Each	5559
	100	Each	7294
	125	Each	9379
	150	Each	10289
	200	Each	14591
	250	Each	17369
	300	Each	27791
2	Manufacture, Supply and Delivery of M.S. Dismantling Joints with both side flange end suitable for installation in between flange end pipes. Thickness as per IS: 7322. These rates are excluding all Taxes and transportation charges etc., complete		
	Nominal Dia. In MM		
	350	Each	65913
	400	Each	75529
	450	Each	81943
	500	Each	98077
	600	Each	114126
	700	Each	126965
	750	Each	130178
	800	Each	155855
	900	Each	162599
	1000	Each	194768
	1100	Each	210847
	1200	Each	243013
	1300	Each	275176
	1400	Each	307966
	1600	Each	340194
	1800	Each	402859
	2000	Each	501340
3	Conveyance of joints and accessories including loading at factory and unloading, stacking at site of work.		5% on basic cost
Note:	Taxes as applicable shall be added as per rules at the time of preparation of estimate.		

30. OTHER ITEMS

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Supply and delivery of pig lead 99.99 % pure excluding all taxes.	Per Kg	330
2	Supply and delivery of lead wool best quality excluding all taxes.	Per Kg	182
3	Supply and delivery of spun yarn of best quality excluding all taxes.	Per Kg	130
4	Supply and delivery of rubber packing excluding all taxes.		
	a) 3 mm thick	Per Kg	111
	b) 6 mm thick	Per Kg	111
5	Supply and delivery of bolts and nuts with double washers excluding all taxes. (1/2" to 1")	Per Kg	As per I&CAD SoR

31. TRENCH LESS TECHNOLOGY WITH PIPE JACKING METHOD

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
1	Railway crossing/Road crossing/Canal crossing by adopting trenchless technology tunneling work through specialized pipe jacking method by erecting the equipment to true to the alignment and gradient, by hydraulic pipe jacking technique complete including tunneling, excavation in all types of soils excluding hard rock and construction of RCC chambers suitable to casing pipe pits, and conveyance charges of machinery and other required materials but excluding cost of encasing pipe, in co-ordination with the concerned authorities as per approved drawings and directed by the Engineer-in -Charge.		
	600 mm dia	Rmt	26460
	700 mm dia	Rmt	27405
	800 mm dia	Rmt	28665
	900 mm dia	Rmt	30098
	1000 mm dia	Rmt	31532
	1100 mm dia	Rmt	32965
	1200 mm dia	Rmt	34398
	1300 mm dia	Rmt	35831
	1400mm dia	Rmt	38698
	1500 mm dia	Rmt	42998

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

32. Water Meters

A	Mechanical Flow meter (Domestic meters)		
1	Supply of magnetically coupled, multijet, inferential type, dry dial Class-B water meters (Screwed end) AMR compatible manufactured in accordance with ISO 4064 standards and its latest amendments/IS 779/1994 and its latest amendments and shall have ISI/EEC/MID pattern approval (valid life cycle certificate and IP 68 protection from FCRI, GOI). (excluding all taxes-with 3 years warranty)	Unit	Rate in Rs.
	15 mm Dia	Each	1331
	20 mm Dia	Each	1997
2	Installation & fixing cost of water meter.	Each	220
B	Electromagnetic Flow Meters (Bulk Flow Meter)		
	Supply & delivery of Electromagnetic Flow meter, manufacturer should have ISO 9001:2008 certification and flow meter testing conforming to ISO 17025; Flow meter Tube: SS 304; Flanges: Carbon Steel as per DIN PN 10 or higher rating as per requirement; Liner: Hard Rubber or PTFE suitable for drinking water application; Grounding: Grounding Rings SS 304 /Grounding Electrodes of material SS 316; Coil Housing and Junction Box: SS 304 /Die Cast Aluminum/ Carbon Steel with anticorrosive epoxy coating of minimum thickness 150 microns/ equivalent as per EN ISO-12944 standard (as per the site condition) ; Ingress Protection: IP 68 for sensor and IP 67 for transmitter; Flow Transmitter Accuracy: +/- 0.5% of the measured value for velocities 0.5 m/sec and above; Display: Digital LCD/LED (backlit LCD / LED) Display, Instantaneous flow, Bi- Directional flow and Totalized flow; Cable between Flow Head and Transmitter: Maximum 25 meters including PVC conduit; Surge Arrester: To be provided; Power Supply & Output: 230 V AC or 24 V DC as applicable to Site condition & 4-20 mA HART; Compatible to SCADA/WEB Based Data acquisition System; Flow meter test lab certification should be provided from NABL approved lab/FCRI ; Excluding all taxes with 5 years Warranty. (Make: M/s Krohne Marshall/Endress+Hauser/ Yokogawa /Siemens/ Emerson/ABB/ or equivalent make)	Unit	Rate in Rs.
	100 mm dia	Each	112332
	150 mm dia	Each	124542
	200 mm dia	Each	155826
	250 mm dia	Each	183810
	300 mm dia	Each	205458
	400 mm dia	Each	359172
	450 mm dia	Each	406564
	500 mm dia	Each	445539
	600 mm dia	Each	512027
	700 mm dia	Each	578544
	800 mm dia	Each	690012
	900 mm dia	Each	809438
	1000 mm dia	Each	866179
	1100 mm dia	Each	1434510
	1200 mm dia	Each	1564448

C	AMR Water Meters		
i)	Multijet (Domestic) AMR Water Meter		
	Supply installation and satisfactory field testing of Multijet Inferential Dry Dial screwed end Water Meters conforming to latest editions of IS 779/ISO 4064 with ISI/MID marking (PN-10). The water meters shall be manufactured with copper can/non magnetic metallic register and IP 68 protection. The module must be connected to meter without wire. The same model of the meter must have passed life cycle/Endurance test from FCRI after 2015. The meter should have IP 68 test report certificate conducted in FCRI. The RF based AMR accuracy test conducted at FCRI should also be submitted. The modules shall be warranted for 5 years battery life. The Module or meter interface unit shall be Radio Frequency based. The remote reading shall be two way communicating. The module should be battery operated and external power supply should not be required. The readings should be obtainable by either walkby or drive by on Android device. The module shall be fitted on the meter wirelessly and shall be with IP 68 protection. The IP 68 test report for module should have been conducted at FCRI. The radio frequency shall be as per Dept of Communications, Govt of India and supplier should specify the frequency of the AMR on the module. In case the RF band is free band, necessary documents from Dept. of Telecom, Govt of India shall be submitted along with declaration on a Rs.100 Stamp paper mentioning the band. The RF based meter reading software should have sync facility to upload the data back to CLOUD server after reading the meters from site using GPRS/Wifi. The AMR meters shall carry warranty of atleast 5 years from the date of delivery/date of installation which ever is earlier. The meter, module and AMR software shall be from the same manufacturer. Lot samples of the meters supplied shall be tested as per IS779 at FCRI for accuracy of meters. The rates are excluding GST.	Unit	Rate in Rs.
	15 mm	Each	7379
	20 mm	Each	8008
	25 mm	Each	8923
	40 mm	Each	10868
ii)	Woltman type (Bulk) AMR Meter		
	Supply, installation and field testing of Horizontal Woltman type hermetically sealed type water meters with IP 68 protection (PN-10/ PN-16). The meters shall be manufactured as per ISO 4064 - 1:1993 with MID marking. The meter must have passed life cycle/Endurance test from FCRI. The module should be battery operated by inbuilt. The data logger shall be capable of transmitting data on daily bases to central server through GSM/GPRS. The AMR data hourly shall be collected by MIU and stored. The MIU shall be connected to Data logger. The data logger should have inbuilt battery. The AMR meter should be capable of providing data like reverse flow, tampering, daily flow rate distribution. The System shall send alerts for blocked meter, flow rate above limit, pressure below or above limits, back flow detection. The	Unit	Rate in Rs.

	meters shall be installed with CI strainers. The AMR meter and battery shall carry warranty of atleast 5 years from the date of delivery/date of installation which ever is earlier. The data shall be accessible on web server as required by the Client. The rates are excluding of GST.		
	50 mm	Each	62462
	80 mm	Each	67267
	100 mm	Each	73033
	150 mm	Each	87448
	200 mm	Each	107627
	250mm	Each	142222
	300mm	Each	302702

33. Instrumentation

1	Ultrasonic Flow Meter:	Unit	Rate in Rs.
	Providing, installing and giving satisfactory test & trial of Ultrasonic Flow meter of ISO working on 85 -260 V AC, 50 HZ electric power supply of following type working on time of flight principle suitable for satisfactory continuous operation in all seasons & with following accessories, working conditions Specifications & duly tested as specified below:		
A)	Ultrasonic Clamp-on portable type Flow Meter (Single Channel)		
	Providing, installing and giving satisfactory test & trial of No ultrasonic clamp on portable type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/declaration copy along with accessories as mentioned above along with accessories like. 1)Magnetic Clamos - 1 Pair & 2)Suitable carrying case-1 No.	Each	304464
B)	Ultrasonic Clamp-on Fixed type Flow Meter (Single Channel)		
	Providing,installing and giving satisfactory test & trial of Ultrasonic damp on Fixed type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (14) below	Each	296943
C)	Ultrasonic Insertion Fixed type Flow Meter (Single Channel)		
	Providing, installing and giving satisfactory test & trial of ultrasonic Insertion Fixed type flow meter working on conditions & specifications, calibration, inspection, testing, training, guarantees and manufacturers test certificate/ declaration copy along with accessories as mentioned in a (1) to (14) below & with inbuilt assembly to fix the insertion type transducer on the pipeline	Each	283843
a)	Mandatory Accessories:		
	1) Integrated signal converter transmitter enclosed in die cast aluminum case / any anticorrosive material conforming to IP-65 or better -1 No. 2) Pair of transducers (Sensors) conforming to IP-68 or better with junction boxes -1 No. 3) Stainless steel straps for mounting clamp on type sensors - 2 Nos. (only required for category A,B) 4) Grease count plant, 100 ml : Bottle - 5 Nos. (only required for category A,B) 5) Signal & power cables for each transducer -50 Mtrs length/each (insertion type flow meter) & 10 mtrs length /each (portable type flow meter) 6) a) for fixed type flow meter-UPS working on 230 V AC, 50 Hz or 24V DC power supply suitable for 24 hrs continuous operation.- 1 No. (only required for category B,C). b) Built in portable type battery back up for minimum 5 Hrs continuous operation with spare battery and separate battery charger working on 230 V AC, 50 Hz power supply for charging battery-1 No. (only required for category A) c) Aluminium / anticorrosive carrying case for flow meter and all accessories (only required for category A) 7) Data storage capacity with built in or separate for date, time, actual flow rate, totaliser & error messages if any with storage		

	capacity of 120 days and at 5 minutes interval data logging along with local indication and necessary cables and software to download data to laptop -1 No 8) Dot matrix printer of EPSON, WIPRO, WEP or Hewlett Packard make with built in or separate printer interface unit for printing of stored data with online / offline printing facility -1 No. 9) Proper earthing shall be provided for protection against high voltage surge (only required for category B,C) 10) Suitable over voltage protection unit for protection of instrument from higher voltage (upto 275 V-300 V AC & above) 11) M.S. sensor protection boxes with suitable size for above ground lines where construction of chamber is not possible. (only required for category B,C) 12) Magnetic clamp for metallic pipe lines and Nylon / SS strips, chain arrangement for clamp on sensors suitable for pipe diameters 50 mm to 3000 mm (only required for category A,B) 13) Battery powered ultrasonic thickness gauge along with charger, test sample, coupling agent and carrying case suitable measuring thickness of 1 mm to 100 mm (only required for category A) 14) 5 meter steel measurement tape with level bottle (only required for category A)		
	15) Working Condition & Specifications		
	a) Water Temp : 10° to 50° C b) Water Quality: Raw water, turbid in nature. Potable chlorinated water c) Operating pressures 0-15 Kg./cm² d) Pipeline MOC : CI, DI, MS with /without mortar lined, Non-metallic pipes. e) Pipe diameter : > 1000 mm -4000 mm f) Flow -Up to 300 Mld g) Pipe Condition: Pipe shall be running full h) Ultrasonic flow meters shall be designed, manufactured to international standards with accuracy of +/- 2% of actual flow. The supplier should have full ISO -9000 series accreditation & facility for fully traceable calibration flow rig as per international standard i) Functional details: Freely programmable j) Measurement - Volumetric flow rate, totalized flow k) Flow direction- Forward & Reverse l) Display- LCD display with suitable lines, digits, segments, markers, for identification of current output. The digit shall be clear, bold & can be read from 1 Mtrs distance m) Out put- for current-4 mA-20mA HART (active/passive) for measuring flow in pipeline. Frequency output shall be 1 khz, Open collector, passive n) Status output-open collector o) Meter shall be suitable for remote facility p) Power supply-85-260 V AC(45-65 Hz)/20-55 V AC (45-65 Hz)/16-62 V DC q) Galvanic isolation- input & output galvanically isolated from power supply from the sensor and from each other r) instruments must carry "CE" mark s) Functionality verification check should be possible inline using recommended software tools t) Future upgradation to field bus foundation. Profibus should be possible with minimal changes		

	16) Calibration, Testing & Inspection		
	The 10% of total supply quantity shall be inspected and tested .The flowmeter shall be calibrated at manufacturers place as per international standard given above.Manufacturer having NABL lab accreditation ,the calibration testing shall be witness by Third party approved by MJP The manufacturer not having NABL lab accreditation shall be tested at FCRI/CWPRS/IDEMI etc, for which third party inspection is not required.		
	17) Manufacturers Guarantee, Certificate & Training		
	The flow meters shall be supplied with manufacturer's test certificate as per international standards -given above, calibration certificates. 12 months guarantee for the trouble free performance and given Adequate training for handling flow meter and installation in field so that trainees can carryout the job independently		
	18) 60 Month's O & M towards flow meter & accessories:		
	The O & M shall be decided based on " planned preventive maintenance" Program (PPM) to be finalized with suppliers with following service included (but not limited) for 60 months beyond standard warranty terms as per H) However for project cases user must discuss with supplier for lumpsum O & M cost for the overall project. Planned Preventive Maintenance (PPM): a) Regular visit to the flow meters (once in 2 month to check the healthyness of instruments) b) Repairs/ replacement of components/spare parts as may be necessary during the flow meter inspection. c) Free replacement of the spare parts and consumables as necessary d) Emergency visit to site within 48 hours for attending any major trouble shooting and break downs. e) Technical training/ trouble shooting training to the user by the supplier. f) Providing complete technical details on instrument with necessary manuals		
	19) General Terms & Conditions		
	a) General Specifications with accessories (except required for each type of meter specified) working conditions, mandatory accessories, calibration, inspection testing manufacturers test certificates, installation and commissioning, guarantee and training shall be common for all flow meters as mentioned above. The Additional/ optional accessories mentioned above to be considered as per project and site requirements. b) The above prices are inclusive of import duty as applicable. c) The above prices inclusive of counter vailing duty (CVD) as applicable with education cess of 2% on CVD. Also includes necessary charges for customs clearances clearing and forwarding charges in India. d) The above prices are includes local inland transportation from manufacturer's godown /custom's godown upto sites anywhere in Telangana. e) The above prices includes necessary packing & forwarding charges as applicable for each project f) Octroi charges are not included in above rates and shall be as per actuals which will be included wherever applicable in		

	estimates for meter up to site storage g) The above prices are inclusive of Marine & inland insurance of flow meters up to site storage h) Meter shall be procured with prior permission from concerned superintending Engineer/Chief Engineer. i) Planning for installation for meter shall be done during execution of pipe work. Straight pipe length of 5 D or more on up stream side and 2 D or more on down stream side of meter is necessary (D is diameter of flow meter) The meters shall be installed so as to have a laminar flow with pipe running full. j) The above rates are exclusive of GST.		
b)	Additional/Optional Accessories		
	1) Pressure transducer, which should be connected to the pressure lead of dual channel data loggers, compatible with the dual channel loggers of appropriate type with a pressure range of 5m to 150 m with an accuracy of not less than +/-1% to be supplied and installed at the upstream of the flow meters.	Each	21834
	2) Fixing flow meter transmitter to internal walls of buildings in a suitably designed panel cabinet with proper locking arrangement with glass window on front door for seeing the readings of flow transmitter and data logger without opening of the panel cabinet. It should house complete ancillaries and including the provision for connection of electrical power supply from nearby apparatus. The panel cabinet shall be prewired and with suitable gland entries.	Each	23144
	3) Laptop with core 2 duo processor, 2 GB RAM, 256 GB HDD, DVD writer, web cam, 14" LCD screen with carrying case, windows XP professional branded with necessary software & upload data should be provided	Each	26201
	4) The portable Device shall be compatible to the logger & flow meters for the purpose of retrieving data & resetting the data loggers, The portable device should be simple to operate & robust in design. The portable hand held units shall have sufficient memory to download & store data up to 6 flow meters. Hand held units shall be supplied with necessary communication leads for data logger to hand held & hand held to commercial PC, All the necessary software for download & upload to be provided.	Each	26201
	5) Remote monitoring system for data acquisition/data transfer & alert SMS /warning based on GSM technology with complete hardware like wireless communication device, cables,necessary software system (BOM with each GSM system is as given below) for each flow meter excluding data SIM card & its regular billing.	Each	43668
	a) Wireless communication device to communicate between central computer & flow transmitter installed at remote site with GSM based system b) DA Scheduler software for CSV file storage and data acquisition c) Cables for pressure, flow & totalized details from transmitter to field gate system {10 Mtrs with each GSM / GPRS system) d) OPC Software to be installed in central PC for SCADA interface. e) Commissioning charges for each locations f) Customized page with Java Applets XML-Data import software for online MIMIC g) R.F. Module / Cyble for operation of AMR shall be taken as Rs.7000 per meter h) RTU (Remote Terminal Unit) for each meter shall be taken as Rs. 12000/-		

	6) Sensor/Transmitter cable of following specification 3 x 0.38 mm ² PVC cable with common branded copper shielded 7mm dia and individually shielded cores-with empty pipe detection 9 EPD: 4 x 0.38 mm ² PVC cable with common branded copper shield 7 mm dia and individually shielded cores. Conductor resistance: ≤ 50 Ohm/Km. (Rate per meter).	Each	230
	7) Conduit pipe (PVC / HDPE plumbing) 32 mm diameter with suitable digging, laying and concealing the duct. (Rate Per Meter)	Each	18
c)	Other Civil Works:		
	1)Flow meter chamber work with suitable man hole for entering the chamber & removal of flow meter for maintenance in future		
	2) Construction of meter room with roof slab (100 mm) brick masonry with pile foundation of minimum 1.5 M x 1.5 M or as per instruction from Engineer-in -Charge with RCC beam/column minimum 0.15m x 0.15m size with steel door & cement jali ventilator and plinth height of minimum 0.5 M above GL and roof slab shall be 2.1 M from plinth inner and outer plaster with water proof cement painting		
2	Providing, installation, testing and commissioning of ULTRASONIC LEVEL TRANSMITTER for water application: Principle: Time of Flight / Sensor MOC PP/ Process connection 1 1/2 inch BSP or 2 inch BSP threaded type / Power Supply: 24 V DC / Out put: 4-20mA / Display: Integral Display for programming and Display reading/IP66. Ranging from 0 - 5 Mts, including LCD Display and configurable to any level and warranty for 5 years. The rates are excluding GST.	Each	62890
3	Providing, installation, testing and commissioning of PRESSURE TRANSMITTER: for water application: Range: 0-10 bar/power supply: 24 V DC / Output: 4-20 mA with HART / Diaphragm: SS316L / Process Connection: ½ "NPT (M) / Accuracy: 0.15% , Protection: IP67, including LCD Display and configurable to any level and warranty for 5 years. The rates are excluding GST.	Each	70751

34. FLOW CONTROL CUM NON-RETURN VALVE

S.No.	Description	Unit	Rate in Rs.
	Supply of tamper proof house hold non return cum flow control valve (with all three parts made by using sold steel bars of SS316) with CNC machine make and of 15mm dia designed for 5 LPM discharge @ 0.5 bar pressure loss, not exceeding the flow of 7 LPM at 1 bar pressure and working on float principle (as per CPHEEO manual) including cost of materials, manufacturing, loading, unloading, stacking, transit insurance, transportation but excluding GST.		
1	15mm dia	Each	265

35. MDPE PIPE

S.No.	Description	Unit	Pipe Series	Pressure Class	Rate in Rs.
	Manufacture, Supply & Delivery of MDPE pipe conforming to ISO 4427 Part-2 (or any equivalent Bureau of Indian Standards code) of PE-80 grade material including cost of materials, manufacturing, loading, unloading, stacking, transit insurance, transportation to any where in Telangana but excluding GST.				
1	20mm OD	Mtr	SDR-11	PN-12.5	30.32
2	25mm OD	Mtr	SDR-11	PN-12.5	44.17
3	32mm OD	Mtr	SDR-11	PN-12.5	72.41

36. DWC HDPE PIPES CONFORMING TO IS 16098- PART-2

1	Manufacture, supply, & delivery of (DWC) structured wall polyethylene/polypropylene piping system class SN-8 with non smooth external annular corrugated and smooth internal surface (Double Wall) for non pressure sewage & Drainage application pipes of standard length 6 m, grade conforming to IS 16098 (part-II: 2013) including rubber gasket, transportation to anywhere in Telangana, loading, unloading charges but excluding all taxes etc complete.		
	Pipe OD	Pipe ID	Rate /MT
	120	100	190
	180	150	335
	235	200	500
	295	250	825
2	Lowering , laying of Class SN 8 Double wall corrugated (DWC) pipping system into ready made trenches , laying true to line and level and perfect linking at joints, encasing the pipe alround with soft gravel, testing and commissioning, and giving necessary hydraulic test to the required pressure as per ISS etc complete for finished item of work.		
	Pipe OD	Pipe ID	Rate /MT
	120	100	150
	180	150	210
	235	200	230
	295	250	285

37. Double Chambered Restrained Joint DI K9 Pipes

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Manufacturing, Supply, Delivery, laying and jointing of Double chambered restrained joint DI K9 Pipes confirming to IS 8329 (restrained joints are designed and tested as per ISO 10804) (to be used to for minimum required length as per design along with double chambered restrained DI fittings to avoid concrete thrust block at bends) including rubber gaskets confirming to IS 5382 -1985/8329-2000 with latest amendments and locking bars & rubber spacers, conveying to work site, rolling and lowering into trenches, laying true to line, level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations, cutting of pipes wherever necessary, jointing with DI specials (excluding cost of specials) and rubber gaskets, cleaning the socket and spigot end with soap solution, applying soft soap to the socket and spigot ends before insertion of rubber gaskets, jacking and fixing in perfect conditions etc. The cost includes soap solution, soft soap, waste etc. and giving necessary hydraulic test to the required pressure as per ISS with all lead and lifts and cost of all jointing materials etc complete but excluding taxes		
	Nominal Dia in MM		
1	100 mm	Rmt	1969
2	150 mm	Rmt	2744
3	200 mm	Rmt	3459
4	250 mm	Rmt	4633
5	300 mm	Rmt	5873
6	350 mm	Rmt	7209
7	400 mm	Rmt	8792
8	450 mm	Rmt	10484
9	500 mm	Rmt	12253
10	600 mm	Rmt	16082
11	700 mm	Rmt	18987
12	750 mm	Rmt	21130
13	800 mm	Rmt	23353
14	900 mm	Rmt	28450
15	1000 mm	Rmt	34318
16	1100 mm	Rmt	39815
17	1200 mm	Rmt	46131

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

Price Variation Formula due to Increase / Decrease in the cost of pig iron.

$P_2 = P_1 + (R_2 - R_1) / 1000 * M * 0.96$, Where

M = Weight of pipe in kg per metre as per I.S.8329-1994 & ISO 10804.

P₂ = Revised rate of pipe in Rs. per Rmt.

P₁ = Rate of pipe in Rs. per Rmt. as per above table.

R₂ = Price of Pig Iron (Rs per MT excluding Taxes) at the time of preparation of estimate.

R₁ = Price of Pig Iron (Rs per MT excluding Taxes) at time of preparation of SoR

= Rs.51,000/-

38. Double Chambered Restrained Joint DI Specials

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Manufacture, Supplying and fitting Ductile Iron Double Chambered Restrained Joint Specials confirming to IS 9523 : 2000 (restrained joints are designed and tested as per ISO 10804) of Class K-12 (Alternative and to avoid concrete thrust blocks along with minimum length of Restrained joint DI pipes at bends) including rubber gasket confirming to IS 5382 : 1985 and locking bars & rubber gaskets etc complete but excluding taxes		
	Ductile Iron Double Chambered Restrained Joint Specials		
1	Specials upto 500mm dia	Kg	358.83
2	Specials above 500 mm dia	Kg	431.29

Note: Taxes as applicable shall be added as per rules at the time of preparation of estimate.

39. Ultrasonic AMR Meters using LoRaWAN Technology

Sl. No.	Description	Unit	Rate in Rs.
1	2	3	4
	Supply, installation, and field testing of Ultrasonic AMR Meter with IP 68 protection (PN-10/ PN-16). The meters shall be manufactured as per ISO 4064:2005. The meter shall be manufactured with copper or Bronze or Cast Steel or Food Grade Engineering plastic. The meter must have passed life cycle/Endurance test from FCRI. The AMR meter shall have inbuilt communication module and battery. The data logger shall transmit data on daily bases to central server through LoRaWAN, in ISM band 865-867 MHz. The AMR meter shall uplink the data once in a day. The AMR meter should be capable of providing data like forward flow, reverse flow, tampering, daily flow rate distribution, leak detect, high flow detect and zero flow. The System shall send alerts for blocked meter, flow rate above limit, back flow detection. The AMR meter and battery shall carry warranty of at least 5 years from the date of delivery/date of installation whichever is earlier. The data shall be accessible on web server as required by the Client. The meter shall be able to operate in ambient temperature range -10 deg C to 55 deg C & Relative Humidity 5% to 95%. The web server, data communication and API cost is not included in the meter cost. The rates are including O&M for a period of 5 years. Rates are excluding GST, other taxes etc.		
1	15mm	Each	13800
2	20mm	Each	18310
3	25mm	Each	24454
4	40mm	Each	26430
5	50 mm	Each	61287
6	63/65mm	Each	68756
7	75/80 mm	Each	78833
8	100 mm	Each	109109
9	150 mm	Each	139523
10	200 mm	Each	168328
11	250mm	Each	172419
12	300mm	Each	246921
13	400mm	Each	342460
14	450mm	Each	377156
15	500mm	Each	414725
16	600mm	Each	480394

Operation & Maintenance (O&M)

40. Arresting of Leakages in HDPE pipeline with buttfusion welding

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting of leakage in HDPE pipe line with buttfusion welding of following diameter including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion of pipe from trench including replacing damaged pipe, providing jointing material, hiring of pumps, welding machine as required, refilling back the trench & all incidental charges complete for finished job of work.				
1	63 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	46	2395	2441
2	75 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	65	2410	2475
3	90 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	92	2427	2519
4	110 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	141	2455	2596
5	125 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	178	2620	2798
6	140 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	223	2660	2883
7	160 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	292	3038	3330
8	180 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	367	3120	3487
9	200 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	454	3304	3758
10	225 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	584	3479	4063
11	250 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	721	4118	4839
12	280 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	906	4666	5572
13	315 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1142	4885	6027
14	355 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1434	5827	7261

41. Arresting of Leakages in HDPE pipeline with fittings (Collars)

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in HDPE pipe line with Butt Fusion Welding and Fittings for the following diameters including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion of pipe from trench with including providing jointing material i.e. collars, flanges etc., hiring of Diesel generator, pumps, welding machine as required, refilling back the trench & all incidental charges complete for finished job of work				
1	63 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	555	2520	3075
2	75 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	669	2534	3203
3	90 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	761	2552	3313
4	110 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	946	2732	3678
5	125 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1410	2832	4242
6	140 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	1566	2871	4437
7	160 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	2034	3196	5230
8	180 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	2774	3277	6051
9	200 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	3537	3397	6934
10	225 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	4167	3571	7738
11	250 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	5005	4982	9987
12	280 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	5575	5307	10882
13	315 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	6445	5535	11980
14	355 mm Dia HDPE pipe PE-100 PN(6 -10 KG)	Job	12036	6500	18536

42. Arresting of Leakages in DI pipeline

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting Joint leakages in DI pipeline at socket and spigot ends (S/S) by replacing the rubber gaskets for following diameters including necessary excavation, dewatering, removing of mud, lifting and removal of pipe, cleaning of pipe at leakage portion, jointing with rubber gasket & placing in position including hire charges of hydra or crane, pumps, DG set and necessary equipments, refilling back the trench & all incidental charges complete for finished job of work				
1	100 mm Dia	Job	457	5667	6124
2	150 mm Dia	Job	672	6316	6988
3	200 mm Dia	Job	816	6836	7652
4	250 mm Dia	Job	906	7428	8335
5	300 mm Dia	Job	1384	8550	9934
6	350 mm Dia	Job	1751	9256	11007
7	400 mm Dia	Job	1903	9954	11857
8	450 mm Dia	Job	2048	10761	12809
9	500 mm Dia	Job	2843	13205	16048
10	600 mm Dia	Job	3370	14906	18276
11	700 mm Dia	Job	4478	16926	21404
12	750 mm Dia	Job	4977	17902	22879
13	800 mm Dia	Job	5962	20629	26591
14	900 mm Dia	Job	7198	23187	30385
15	1000 mm Dia	Job	7873	25570	33443

43. Arresting of Leakages in MS pipeline

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in MS pipeline of following diameter including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion, grinding, cutting the pipeline or joint if necessary including welding the joint by using ISI marked welding electrodes inclusive of hydra or crane, DG SET, Welding machine with gas cutter with LPG Cylinder, oxygen cylinder, grinding machine etc. with fuel, operator and labour as required, refilling back the trench & all incidental charges complete for finished job of work.				
1	100 mm Dia	Job	27	1919	1946
2	150 mm Dia	Job	27	1986	2013
3	200 mm Dia	Job	27	2054	2081
4	250 mm Dia	Job	50	2406	2456
5	300 mm Dia	Job	50	2474	2524
6	350 mm Dia	Job	75	2979	3054
7	400 mm Dia	Job	75	3050	3125
8	450 mm Dia	Job	75	3121	3196
9	500 mm Dia	Job	145	3606	3751
10	600 mm Dia	Job	181	3752	3933
11	700 mm Dia	Job	181	3900	4081
12	800 mm Dia	Job	181	4218	4399
13	900 mm Dia	Job	1514	7216	8730
14	1000 mm Dia	Job	1514	7389	8903
15	1100 mm Dia	Job	1514	7833	9347
16	1200 mm Dia	Job	1514	8237	9751
17	1300 mm Dia	Job	2058	9583	11641
18	1400 mm Dia	Job	2058	10062	12120
19	1500 mm Dia	Job	2058	10278	12336
20	1600 mm Dia	Job	2545	12350	14895
21	1700 mm Dia	Job	2545	12572	15117
22	1800 mm Dia	Job	2545	13133	15678
23	1900 mm Dia	Job	3424	15768	19192
24	2000 mm Dia	Job	3424	16224	19648

25	2100 mm Dia	Job	3424	16704	20128
26	2200 mm Dia	Job	3424	17743	21167
27	2300 mm Dia	Job	3424	18129	21553
28	2400 mm Dia	Job	3424	18822	22246

44. Arresting of Leakages in BWSC pipeline

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in damaged/ Burst BWSC pipeline by replacement with MS Barrel pipe 6m length with bituminous paint outside & food grade epoxy paint inside for the following diameters including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion, grinding, cutting the pipeline or joint if necessary including replacing damaged pipe with MS barrel pipe, Welding the joint by using ISI marked welding electrodes inclusive of hiring of excavator, pumps, hydra or crane, DG SET, Welding machine with gas cutter with LPG Cylinder, oxygen cylinder, grinding machine etc., refilling back the trench & all incidental charges complete for finished job of work.				
1	250 mm Dia	Job	35333	5280	40613
2	300 mm Dia	Job	42153	5582	47735
3	350 mm Dia	Job	49140	6227	55367
4	400 mm Dia	Job	56133	6381	62514
5	450 mm Dia	Job	62583	6872	69455
6	500 mm Dia	Job	86772	8164	94936
7	600 mm Dia	Job	103151	9244	112395
8	700 mm Dia	Job	120261	10286	130547
9	800 mm Dia	Job	137698	11109	148807
10	900 mm Dia	Job	184575	12432	197007
11	1000 mm Dia	Job	204088	13268	217356
12	1100 mm Dia	Job	227697	15098	242795
13	1200 mm Dia	Job	250586	15903	266489

45. Arresting of Leakages in PVC pipeline (4kg/sq.cm)

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in Unplasticised PVC pipe line with Solvent Jointing method of following diameter including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion of pipe from trench including replacing damaged pipe, providing materials such as couplers, solvent as required, hiring of pumps, welding machine as required, refilling back the trench & all incidental charges complete for finished job of work.				
1	63 mm Dia PVC - 4 Kg/Sq.cm	Job	112	1747	1859
2	75 mm Dia PVC - 4 Kg/Sq.cm	Job	123	1763	1886
3	90 mm Dia PVC - 4 Kg/Sq.cm	Job	180	1783	1963
4	110 mm Dia PVC - 4 Kg/Sq.cm	Job	222	1809	2031
5	125 mm Dia PVC - 4 Kg/Sq.cm	Job	356	1829	2185
6	140 mm Dia PVC - 4 Kg/Sq.cm	Job	422	1847	2269
7	160 mm Dia PVC - 4 Kg/Sq.cm	Job	541	2141	2682
8	180 mm Dia PVC - 4 Kg/Sq.cm	Job	661	2167	2828
9	200 mm Dia PVC - 4 Kg/Sq.cm	Job	861	2191	3052
10	225 mm Dia PVC - 4 Kg/Sq.cm	Job	1035	2336	3371
11	250 mm Dia PVC - 4 Kg/Sq.cm	Job	1188	3017	4205
12	280 mm Dia PVC - 4 Kg/Sq.cm	Job	1489	3308	4797
13	315 mm Dia PVC - 4 Kg/Sq.cm	Job	1900	3359	5259

46. Arresting of Leakages in PVC pipeline (6kg/sq.cm)

Sl. No.	Description	Unit	Material Component Rate in Rs.	Labour, Hire charges of Machinery & other components in Rs.	Total Rate in Rs.
1	2	3	4	5	6
	Arresting leakage in Unplasticised PVC pipe line with Solvent Jointing method of following diameter including necessary excavation, dewatering, removing of mud, cleaning of pipe and leakage portion of pipe from trench including replacing damaged pipe, providing materials such as couplers, solvent as required, hiring of pumps, welding machine as required, refilling back the trench & all incidental charges complete for finished job of work.				
1	63 mm Dia PVC - 6 Kg/Sq.cm	Job	120	1747	1867
2	75 mm Dia PVC - 6 Kg/Sq.cm	Job	133	1762	1895
3	90 mm Dia PVC - 6 Kg/Sq.cm	Job	196	1783	1979
4	110 mm Dia PVC - 6 Kg/Sq.cm	Job	244	1809	2053
5	125 mm Dia PVC - 6 Kg/Sq.cm	Job	383	1829	2212
6	140 mm Dia PVC - 6 Kg/Sq.cm	Job	459	1847	2306
7	160 mm Dia PVC - 6 Kg/Sq.cm	Job	588	2140	2728
8	180 mm Dia PVC - 6 Kg/Sq.cm	Job	722	2167	2889
9	200 mm Dia PVC - 6 Kg/Sq.cm	Job	936	2191	3127
10	225 mm Dia PVC - 6 Kg/Sq.cm	Job	1137	2336	3473
11	250 mm Dia PVC - 6 Kg/Sq.cm	Job	1327	3017	4344
12	280 mm Dia PVC - 6 Kg/Sq.cm	Job	1653	3308	4961
13	315 mm Dia PVC - 6 Kg/Sq.cm	Job	2104	3358	5462

Annexure

1. Latest G.Os
2. Seigniorage Charges
3. Corrigendums

GOVERNMENT OF TELANGANA
ABSTRACT

Mines & Minerals - New Sand Mining Policy - 2014 for the State of Telangana - Usage of Manufactured Sand - Certain Instructions - Issued.

INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.Ms.No. 37

Dated: 29-05-2018.

Read the following:-

1. G.O.Ms.No.38, Ind. & Com (M.I) Department, dated.12.12.2014
2. G.O.Ms.No.03, Ind. & Com (M.I) Department, dated.08.01.2015

O R D E R:

The Government of Telangana is committed to encourage use of Manufactured Sand as an alternative to river sand in order to conserve the environment on the one hand and to overcome the problem of growing shortage of natural sand on the other hand. In the references read above, the Government of Telangana have issued orders, for regulation of sand mining wherein it was mentioned that usage of Manufactured Sand shall be encouraged in place of river sand to meet the requirement of bulk consumers. Manufactured sand is defined as purpose made crushed fine aggregate produced from a suitable source material.

2. The utility and demand for manufactured sand has increased considerably over a period of time due to certification by reputed Scientific Organizations such as National Council for Cement and Building Material (NCCBM), National Academy of Construction (NAC), BICARD, a Scientific Research and Certification Lab at Department of Civil Engineering, JNTU, Hyderabad. The Technical viability of Manufactured Sand has been established without doubt.

3. Government, hereby direct all the Engineering Works Departments to use Manufactured Sand (Rock Sand) and Natural River sand in the ratio of 50:50 in all the mixes of cement concrete and in the items of works where sand is used earlier, to reduce the burden on Natural Resources and to make the sustainable ecosystem.

4. The Engineer in Chiefs, Roads and Buildings, Irrigation & Command Area Development and Panchayat Raj & Rural Development shall take necessary action in the matter accordingly.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SHAILENDRA KUMAR JOSHI
CHIEF SECRETARY TO GOVERNMENT

To

The Engineer in Chief, Roads and Buildings.

The Engineer in Chief, Irrigation & Command Area Development.

The Engineer in Chief, Panchayat Raj.

The Engineer in Chief, RWS&S.

Copy to:

The I&CAD Department, Telangana Secretariat.

The TR&B Department, Telangana Secretariat.

The PR&RD Department, Telangana Secretariat, Hyderabad.

The Director of Mines & Geology, Telangana State, Hyderabad.

The Vice Chairman & Managing Director, TSMDC Ltd, Hyderabad.

The Commissioner of Panchayat Raj, Hyderabad

All the District Collectors in the State of Telangana

P.S to Principle Secretary to the Hon'ble Chief Minister.

P.S to Hon'ble Minister for Mine and Geology.

P.S to Hon'ble Minister for Panchayat Raj & Rural Development.

P.S to Hon'ble Minister for Irrigation

P.S to Hon'ble Minister for Roads & Buildings

P.S to Chief Secretary to Government.

P.S to Prl. Secretary Government & CIP (FAC), Ind & Com Dept.

Sf/Sc (C.No.2823/M.I(1)/2018)

//FORWARDED : : BY ORDER//

SECTION OFFICER

**GOVERNMENT OF TELANGANA
ABSTRACT**

Mines and Minerals - Rules - The Telangana Minor Mineral concession Rules, 1966 - Revision of Seigniorage Fee - Amendment - Notification - Orders - Issued.

INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.Ms.No.18,

Dated:31.03.2022
Read the following

- 1) G.O.Ms.No.67, Industries & Commerce (M.I) Dept., dt:26.09.2015
- 2) G.O.Ms.No.16, Industries & Commerce (M.I) Dept., dt:16.03.2016
- 3) From the Director of Mines and Geology, Hyderabad Letter No.1247095/P/2021, dated:22.09.2021.

ORDER:

The Director of Mines and Geology, Telangana, by above reference 3rd read above, has stated that as per Section 15 (3) of Mines and Mineral (Development and Regulation) Act, 1957 (MMDR, 1957), Seigniorage Fee has to be revised every three years. The Director also stated that no revision of Seigniorage Fee has been done in past six years and the last revision was done on 26.09.2015 for Schedule-I Minor Minerals and 16.03.2016 for Schedule III Minor Minerals.

2. Hence, the Director has proposed revision of Seigniorage Fee and requested the Government to issue necessary amendments to Schedule I and Schedule III under Rule 10 of Telangana State Minor Mineral Concession Rules, 1966.

3. After careful examination of the proposal of the Director of Mines and Geology, Telangana, it is hereby decided to accept the revision of Seigniorage Fee.

4. Accordingly, the following notification shall be published in the Extra-Ordinary Issue of the Telangana State Gazette.

NOTIFICATION

In exercise of the powers conferred by Sub-Section (1) of Section 15 of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act No.67 of 1957), the Governor of Telangana hereby makes the following amendments to the Telangana Minor Mineral Concession Rules, 1966.

AMENDMENTS

In the said rules, for Schedule I and Schedule III under Rule 10, the following shall be substituted.

**SCHEDULE-I
RATES OF SEIGNIORAGE FEE**

S. No	Name of Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Building Stone, Rough Stone/ Boulders, Road Metal, Ballast and Manufactured Sand (M-Sand)	65
2	Dimensional Stone used for Kerbs& Cubes	130
3	Lime Kankar/ Limestone	The rate of royalty as applicable to Limestone (other than LD Grade) in respect of major Minerals as per the 2 nd Schedule of the Mines & Minerals (D&R) Act, 1957.
4	Marble	130
5	Mosaic chips	58
6	Morrum/Gravel & Ordinary Earth	20
7	Ordinary Sand	27

8	Shingle	22
9	Chalcedony Pebbles	65
10	Fullers Earth/ Bentonite	195
11	Shale/Slate	195
12	Rehmatti	32
13	Limestone slabs	130
14	Brick Earth used in the manufacture of Bricks including Mangalore Tiles.	7800 per kiln per annum
15	Granite useful for cutting and polishing	
	i) Black Granite	
	a) Gangsaw (above 270 x above 150 CM)	1361/3900 MT/M3
	b)below Gangsaw	1043/2990 MT/M3
	ii) Colour Granite	
	a) Gangsaw (above 270 x above 150 CM)	1128/2990 MT/M3
	b)below Gangsaw	980/2600 MT/M3

SCHEDULE-III
RATES OF SEIGNIORAGE FEE

S. No	Name of the Minor Mineral	Rate of Seigniorage Fee per Metric Tonne (MT) (In Rupees)
1	Agate	156
2	Ball Clay	78
3	Barytes	780
4	Calcareous Sand	97
5	Calcite	91
6	Chalk	104
7	China Clay	78
8	Clay (Others)	52
9	Corundum	78
10	Diaspore	351
11	Dolomite	130
12	Dunite or Pyroxenite	52
13	Felsite	143
14	Feldspar	97
15	Fireclay (including plastic, pipe, lithomargic and natural pozzolanic clay)	65
16	Fuchsite Quartzite	91
17	Gypsum	91
18	Jasper	156
19	Kaolin	78
20	Laterite	130

21	Limekankar	123
22	Mica	2600
23	Ochre	45
24	Pyrophyllite	234
25	Quartz	78
26	Quartzite	78
27	Sand (Others)	78
28	Shale	169
29	Silica Sand	78
30	Slate	169
31	Steatite or Talc or Soapstone	390

5. These orders will come into effect from 01st April, 2022.
6. The Director of Mines & Geology, Telangana, shall take necessary action accordingly.
7. This order is issues with the concurrence of Finance Department vide their U.O.No.2012-A/89/EBS.VII/I&C/2021, dated:22-09-2021

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

SOMESH KUMAR
CHIEF SECRETARY TO GOVERNMENT &
PRINCIPAL SECRETARY TO GOVERNMENT (MINES & GEOLOGY)(FAC)

To
The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing) Hyderabad.
(He is requested to publish the above Notification in the Extra -Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Inds. & Comm. (M.I) Dept.,).

The Director of Translation, Telangana, Hyderabad.
(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad).

The Director of Mines and Geology, Telangana State, Hyderabad.
The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.

All the District Collectors/ Additional Collectors in the State of Telangana.
The Municipal Administration and Urban Development Department.
The Irrigation & CAD Department.
The Transport, Roads & Buildings Department.
The Panchayat Raj & Rural Development Department.
The Revenue Department.
The Director General of Police, Hyderabad.
The Commissioner of Rural Development, Hyderabad.
The Commissioner of Transport, Hyderabad.
The Commissioner of Panchayat Raj, Hyderabad
The Director, Ground Water Department.
The Member-Secretary, Telangana State Pollution Control Board, Hyderabad.
The Engineer-in-Chief, Irrigation Department.

Copy to :
The Secretary to Government, Ministry of Mines, Govt of India.
The Law Department.
The Finance Department.
P.S. to Principal Secretary to Hon'ble Chief Minister.

P.S to Hon'ble Minister MA&UD

P.S. to Hon'ble Minister for Panchayat Raj & Rural Development.

P.S. to Hon'ble Minister for Irrigation.

P.S. to Chief Secretary and Principal Secretary to Government, Industries & Commerce (Mines) Department.

The Joint Directors/Deputy Directors/Assistant Directors of Mines and Geology through the Director of Mines & Geology, Hyderabad.

The General Administration (Cabinet) Department.

Sc/Sf

//FORWARDED:: BY ORDER//

SECTION OFFICER

GOVERNMENT OF TELANGANA
ABSTRACT

Mines and Minerals – Revision of Rates of Seigniorage Fee and Dead Rent - Orders
– Issued.

INDUSTRIES AND COMMERCE (MINES.I) DEPARTMENT

G.O.MS.No. 67

Dated: 26/09/2015

Read the following

- 1) G.O.Ms.No.198, Industries & Commerce (M.I) Dept., dt:13.08.2009
- 2) Government Memo No.418/M.I(1)/2015, dated:08.07.2015.
- 3) From the Director of Mines and Geology, Hyderabad Letter No.3305/MR/2014, dated:08.07.2015.

ORDER:

The following notification will be published in the Extra-Ordinary Issue of the Telangana Gazettee dated:the 26th September, 2015.

NOTIFICATION

In exercise of the powers conferred by Section Sub-Section (1) of 15 of the Mines & Minerals (Development & Regulation) At, 1957 (Central Act No.67 of 1957), the Government of Telangana hereby issue the following amendments to the A.P. Minor Mineral Concession Rules, 1966 issued in G.O.Ms.No.1172, Industries & Commerce (Mines-I) Department, dated:04-09-1967 and as amended subsequently from time to time and as adapted vide G.O.Ms.No.55, Industries & Commerce (Mines.I) Department, dated:26.08.2015 as A.P. Minor Mineral Concession Rules, 1966 (Telangana Adaptation) order, 2015.

AMENDMENTS

In the said rules, under rule 10 for Schedules I and II the following shall be substituted, namely:

SCHEDULE-I
RATES OF SEIGNIORAGE FEE

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seigniorage fee (In Rupees)
1	Building Stone, Rough Stone/ Boulders, Road Metal and Ballast	M3/MT	75/50
2	Dimensional Stone used for Kerbs & Cubes	MT	100/MT
3	Lime Kankar/ Limestone	MT	The rate of royalty as applicable to Limestone (other than LD Grade) in respect of major Minerals as per the 2 nd Schedule of the Mines & Minerals (D&R) Act, 1957.
4	Marble	M3/MT	250/100
5	Mosaic chips	MT	45
6	Morrum/Gravel & Ordinary Earth	M3/MT	30/20
7	Ordinary Sand	M3/MT	40/27
8	Shingle	M3/MT	25/17
9	Chalcedony Pebbles	M3/MT	75/50
10	Fullers Earth/ Bentonite	MT	150
11	Shale/Slate	MT	150
12	Rehmatti	MT	25
13	Limestone slabs	M2/MT	8/100

14	Brick Earth used in the manufacture of Bricks including Mangalore Tiles.	-	Rs.6000/- per kiln per annum	
15	Granite useful for cutting and polishing	Gangsaw above 270 x above 150	Below 270 X below 150	Equal and below 70
a	Black Granite	3000	2300	1200
b	Colour Granite	2300	2000	1000

The rates shown at Sl.No.15 shall come into force w.e.f., two years from the date of this G.O. until then the rates ordered in G.O.Ms.No.198, Industries & Commerce (M.I) Dept., dt:13.08.2009 shall continue to be inforce.

SCHEDULE-II
Rates of Dead Rent

Sl. No.	Name of the mineral	Rate of Dead Rent per hectare per Annuaam (in Rs.)
1	Black Granite	1,00,000
2	Colour Granite	80,000
3	Limestone other than classified as Major Minerals used for Lime burning or building construction purposes, Marble, Boulders, Building Stone including Stone used for Road Metal, Fullers Earth, Ballast Concrete and other Constructions purposes, Slate and Pyllites.	50,000
4	Gravel Morrum, Shingle, Limestone Slabs, used for Flooring purposes, Chalcedeny Pebbles used in the building purposes, Limeshell for burning used for building purposes and Rehmatti.	40,000

2. The rate of royalty revised by Government of India with effect from 01.09.2014 in respect of (31) Major Minerals now declared as Minor Minerals and transferred to the State Government in the extra-ordinary issue of the Gazette Government of India Notification No.423(E) dated:10.02.2015 shall be continued, until further orders.

3. This order issues with the concurrence of Finance Department vide their U.O.No.11350/292/EBS-VII/I&C/2015, dated:18-09-2015.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

ARVIND KUMAR
SECRETARY TO GOVERNMENT & CIP

To,
The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing)
Hyderabad. (He is requested to publish the above Notification in the Extra-Ordinary issue of Telangana Gazette, and arrange to send 1000 copies of the same to Government in Industries & Commerce (M.I) Department).

The Director of Mines and Geology, Telangana State, Hyderabad
The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.
All the Joint Director/Deputy Director/Assistant Directors of Mines and Geology through the Director of Mines and Geology, Hyderabad

Copy to:

The Secretary to Government, Ministry of Mines, GoI
The Law (A) Department.
The Finance Department.
The Industries and Commerce (Mines.II) Department.
The P.S. to Hon'ble Minister for Mines and Geology.
The P.S. to Secretary to Government &CIP, Ind. & Com. Dept.,
SF/Sc.(C.No.418/M.I(1)/2015)

//Forwarded::By order//

SECTION OFFICER

**GOVERNMENT OF TELANGANA
ABSTRACT**

MINES & Quarries – Regulation of (31) Major Minerals declared through notification by the Central Government as Minor Minerals – Rates of Seigniorage Fee and Dead Rent – Notification - Orders – Issued.

INDUSTRIES AND COMMERCE (MINES-I) DEPARTMENT

G.O.MS.No. 16

Dated: 16/03/2016
Read the following:

- 1) Gazette Notification issued vide GSR No.423(E) dt:10-02-2015 by the Ministry of Mines, Government of India.
- 2) G.O.Ms.No.55, Industries &Commerce (M.I) Department, dated:26-08-2015.
- 3) From the Director of Mines & Geology, Hyderabad Letter No.4249/P/2015, dated:08-12-2015.
- 4) G.O.Ms.No.15 Industries &Commerce (M.I) Department, dated:16.03.2016.

ORDER:

In the reference 1st read above, the Ministry of Mines, Government of India in exercise of the powers conferred by clause (e) of Section 3 of the Mines and Minerals (Development and Regulation) Act, 1957 declared the following (31) Major Minerals as Minor Minerals in addition to the Minor Minerals already vested with the State Government:

1. Agate;	12. Dunite or Pyroxenite;	22. Mica;
2. Ball Clay;	13. Felsite.	23. Ochre;
3. Barytes;	14. Feldspar;	24. Pyrophyllite;
4. Calcareous Sand;	15. Fireclay;	25. Quartz;
5. Calcite;	16. Fuchsite Quartzite;	26. Quartzite;
6. Chalk;	17. Gypsum;	27. Sand (Others);
7. China Clay;	18. Jasper;	28. Shale;
8. Clay (Others);	19. Kaolin;	29. Silica Sand;
9. Corundum;	20. Laterite;	30. Slate; and
10. Diaspore;	21. Limekankar;	31. Steatite or Talc or Soapstone.
11. Dolomite;		

2. In the reference 2nd read above, the Andhra Pradesh Minor Mineral Concession Rules, 1966 were adopted by the Government by an order called "Andhra Pradesh Minor Mineral Concession Rules, 1966 (Telangana Adoption) Order, 2015" by notifying in an extraordinary issue of Telangana Gazette No.35, dated:26.08.2015, in view of Andhra Pradesh Reorganization Act, 2014.

3. In the reference 3rd read above, the Director of Mines and Geology, Hyderabad has proposed the revision of Seigniorage Fee and Dead Rent consequent on declaring the (31) Major Minerals as Minor Minerals to regulate in the State.

4. In the reference 4th read above, the Government have issued orders for regulating the said (31) Minerals on par with Granite useful for cutting & polishing and Marble as per Rule 12(5) of the existing Telangana Minor Mineral Concession Rules, 1966, on case to case basis, until the "Telangana State Mineral Policy" and "Telangana Minor Mineral Concession, Conservation and Development Rules-2016" are announced.

5. The Government, after careful examination of the matter, have decided to order the revision of Seigniorage Fee and Dead Rent for the said (31) Minerals to regulate in the state.

[P.T.O]

6. Accordingly, the following Notification shall be published in the Extra-ordinary issue of Telangana Gazette dated the 18th March, 2016.

NOTIFICATION

In exercise of the powers conferred by Section 15(1) of Mines and Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), the Governor of Telangana hereby issue the following amendments to the Telangana State Minor Mineral Concession Rules, 1966.

Amendments

In the said rules, under Rule 10 after Schedule-I & II the following shall be added, namely:-

SCHEDULE-III
RATES OF SEIGNIORAGE FEE

Sl. No.	Name of the Minor Mineral	Unit	Rate of Seigniorage Fee (in Rupees)
1.	Agate	MT	120/-
2.	Ball Clay	MT	60/-
3.	Barytes	MT	600/-
4.	Calcareous Sand	MT	75/-
5.	Calcite	MT	70/-
6.	Chalk	MT	80/-
7.	China Clay	MT	60/-
8.	Clay (others)	MT	40/-
9.	Corundum	MT	60/-
10.	Diaspore	MT	270/-
11.	Dolomite	MT	100/-
12.	Dunite or Pyroxenite	MT	40/-
13.	Felsite	MT	110/-
14.	Feldspar	MT	75/-
15.	Fireclay (including plastic, pipe, lithomargic and natural pozzolanic clay)	MT	50/-
16.	Fuchsite Quartzite	MT	70/-
17.	Gypsum	MT	70/-
18.	Jasper	MT	120/-
19.	Kaolin	MT	60/-
20.	Laterite	MT	100/-
21.	Limekankar	MT	95/-
22.	Mica	MT	2000/-
23.	Ochre	MT	35/-
24.	Pyrophyllite	MT	180/-
25.	Quartz	MT	60/-
26.	Quartzite	MT	60/-
27.	Sand (others)	MT	60/-
28.	Shale	MT	130/-
29.	Silica Sand	MT	60/-
30.	Slate	MT	130/-
31.	Steatite or Talc or Soapstone	MT	300/-

**Schedule-IV
Rates of Dead Rent**

Name of the Mineral	Rate of Dead Rent per Hectare per Annum
Agate; Ball Clay; Barytes; Calcareous Sand; Calcite; Chalk; China Clay; Clay (Others); Corundum; Diaspore; Dolomite; Dunite or Pyroxenite; Felsite; Feldspar; Fireclay; Fuchsite Quartzite; Gypsum; Jasper; Kaolin; Laterite; Limekankar; Mica; Ochre; Pyrophyllite; Quartz; Quartzite; Sand (Others); Shale; Silica Sand; Slate; and Steatite or Talc or Soapstone.	Rs.20,000/- (Twenty thousand only) This will be enhanced by 50% after 3 years and another 50% after 5 years or based the situation at that point of time as decided by Government.

7. The Director of Mines and Geology, Hyderabad shall take necessary further action in the matter, accordingly.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

ARVIND KUMAR
PRINCIPAL SECRETARY TO GOVERNMENT & CIP

To

The Commissioner of Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad.
(He is requested to publish the above Notification in the Extra-Ordinary issue of Telangana Gazette, and arrange to send 500 copies of the same to Government in Industries & Commerce (M.I) Dept.,).

The Director of Translation, Telangana, Hyderabad.

(He is requested to furnish the Telugu version of the Notification direct to the Commissioner, Printing, Stationary & Stores Purchase (Ptg. Wing), Hyderabad)

The Director of Mines and Geology, Telangana State, Hyderabad.

The Vice Chairman & Managing Director, Telangana State Mineral Development Corporation Ltd., Hyderabad.

All the District Collectors/Joint Collectors in the State of Telangana.

The Irrigation & CAD Department.

The Transport, Roads & Buildings Department

The Panchayat Raj & Rural Development Department

The Revenue Department.

The Director General of Police, Hyderabad

The Commissioner of Rural Development, Hyderabad.

The Commissioner of Transport, Hyderabad.

The Commissioner of Panchayat Raj, Hyderabad

All the Departments of Telangana Secretariat.

The Director, Ground Water Department.

The Member-Secretary, Telangana State Pollution Control Board, Hyderabad.

The Engineer-in-Chief, Irrigation Department.

Copy to :

P.S. to Principle Secretary to the Hon'ble Chief Minister.

P.S to Hon'ble Minister for Mines and Geology.

P.S. to Hon'ble Minister for Panchayat Raj & Information Technology.

P.S. to Hon'ble Minister for Irrigation.

P.S. to Chief Secretary to Government.

P.S. to Secretary to Government & CIP, Ind. & Com Dept.

P.S. to Secretary to Government, Ind & Com Dept.,

The Joint Directors/Deputy Directors/Assistant Directors of Mines and Geology Dept., through the Director of Mines & Geology, Hyderabad.

The Law (A) Department.

The General Administration (Cabinet) Department.

The Industries and Commerce (Mines.II) Department.

Sf/Sc.(C.No.8613/M.I(1)/2015)

//FORWARDED : : BY ORDER//

SECTION OFFICER

GOVERNMENT OF TELANGANA
FINANCE (WP) DEPARTMENT
&&&

Circular Memo No.1823205-A/231/A1/WP/2022, dated: 29.12.2022

Sub: Works - Revision of Goods and Services Tax (GST) Rates – Reg.

- Ref: 1. G.O.Ms.No.67, I&CAD (Reforms) Department, Dt: 04.07.2018
2. Government of India Notification No.15/2021, Central Tax (Rate), dated: 18.11.2021.
3. Government of India Notification No.22/2021, Central Tax (Rate), dated: 31.12.2021.
4. Government of India Notification No.3/2022, Central Tax (Rate), dated:13-7-2022.
5. From the Engineer-in-Chief (General), Hyderabad, Letter No.ENC(G)/SE(P&M)/DCE/DEE8/AEE22/KPH/GST/F-67, dated:09.11.2022.

&&&

Government in the reference 1st cited, have issued guidelines for implementation of Goods and Services Tax (GST) for ongoing and future works contracts with effect from 01.07.2017 for regulating work bills for all Engineering Departments.

2. The Government of India in the references 2nd to 4th cited have issued following notifications making certain amendments inter-alia revising the Goods and Services Tax (GST) rates on works contracts.

- i. Government of India vide Notification No.15/2021, dated: 18.11.2021 and notification No.22/2021 dated: 31.12.2021 have amended the master Notification No.11/2017 dated: 28.06.2017 to be effective from 01.01.2022 and the effect of the amendment is that the Government Authority and Government Entity are excluded from the list of specified recipients of the supply of services at concessional rates i.e 5%, 12% and nil rate.
- ii. Government of India vide Notification No.03/2022 dated:13.07.2022 have amended the master Notification No.11/2017 dated:28.06.2017 as per which with effect from 18.07.2022, GST is applicable @18% on all works contracts and @12% for the works contracts provided to Government and Local Authorities, having predominantly earth work.

3. In the reference 5th read above, the Engineer-in-Chief(General),Hyderabad has submitted the proposal for amending G.O.Ms.No.67, Irrigation & CAD (Reforms) Department, dated: 04.07.2018, in accordance with GoI Notification 03/2022 dated:13.07.2022 and GoI Notification No.15/2021 dated 18.11.2021 read with Notification No.22/2021 dated:31.12.2021.

4. Government after careful examination of the matter, direct that GST shall be implemented in accordance with Department of Revenue, Ministry of Finance, Govt. of India Notification No.03/2022-Central Tax (Rate), Dated: 13.07.2022 and Notification No.15/2021 dated 18.11.2021 read with Notification No.22/2021 dated: 31.12.2021 as tabulated below.

S.No.	Description of Service	Existing GST Rate (CGST+SGST)	Revised GST Rate (CGST+SGST)	With effect from
1	2	3	4	5
1	Construction services to Government Entity or Government Authority as per the Notification No.15/2021, dated: 18.11.2021 read with Notification No.22/2021, dated: 31.12.2021.	12%	18%	01.01.2022
2	Construction services to Government Entity or Government Authority involving predominantly earth work (more than 75 % value of work) as per the Notification No.15/2021, dt.18.11.2021 read with Notification No.22/2021, dated: 31.12.2021.	5%	18%	01.01.2022
3	Construction services to Central Government or State Government or Union Territory or Local authority as per the Notification No.03/2022 dated: 13.07.2022.	12%	18%	18.07.2022

4	Construction services to Central Government or State Government or Union Territory or Local Authority involving predominantly earth work (more than 75% of value of work) per the Notification No.03/2022 dated: 13.07.2022.	5%	12%	18.07.2022

5. a) For Works Estimates sanctioned on or after cut off dated mentioned in column(5) of the above table, the provision for GST payable shall be made in PART-B of Estimate at the rate of 18% or 12% as the case may be.
- b) For ongoing works, GST shall be paid as per the provisions of the GST Act at the above rates duly providing for the same in variation/ revised estimates.
- c) The concerned agencies of works contracts are responsible to discharge their liability as per GST Act and provisions and to file their returns accordingly.

6. The Irrigation & CAD, Panchayat Raj & Rural Development, Transport, Roads & Buildings and Municipal Administration & Urban Development Departments are requested to take necessary further action in the matter, accordingly.

7. The Director of Works and Accounts, Telangana, Hyderabad shall issue necessary instructions to all the concerned for adhering the above instructions.

K.RAMAKRISHNA RAO,
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The Irrigation & CAD Department, Telangana Secretariat, Hyderabad.
The Panchayat Raj & Rural Development Department,
Telangana Secretariat, Hyderabad.
The Transport, Roads & Buildings Department,
Telangana Secretariat, Hyderabad.
The Municipal Administration & Urban Development Department,
Telangana Secretariat, Hyderabad.
The Director of Works and Accounts, Telangana, Hyderabad.

Copy to:

All Engineer-In-Chiefs and the Chief Engineers, I & CAD Department.
The Engineer-in-Chief (TR&RB) Department, Hyderabad.
The Engineer-in-Chief, PR&RD Department, Hyderabad.
The Engineer-in-Chief, PH Department, Hyderabad.
The Principal Accountant General, Telangana, Hyderabad.
The Revenue (C.T) Department, Telangana Secretariat, Hyderabad.
The P.S. Prl. Secretary to Hon'ble Chief Minister, Telangana, Hyderabad.

//FORWARDED :: BY ORDER//



SECTION OFFICER