

Tender Inviting Authority: Deputy Director, IBC, New Delhi

Name of Work: "Construction Works of India International Centre for Buddhist Heritage and Culture (IICBHC) includes Civil Works, Interior, Mechanical, Net zero, Electrical, Plumbing & all allied Works at Lumbini, Nepal including Annual Maintenance Contract (AMC) for Two Years."

Contract No: IBC/LUMBINI/001.

Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
PART: A CIVIL & LANDSCAPE						
1	Earth work in excavation by Mechanical means / Manual means in all kinds of soils over areas (exceeding 3M in width as well as 10 Sqm in plan) in foundation trenches, Column Pits, Lifts Pits or under grade/ raft slab etc; including excavation for isolated column footings of required area in plan & depth from existing natural / excavated ground level, incl. dewatering of rain/ surface water, and stacking the excavated material within the site including dressing of bottom, sides strutting, timbering, shoring, trimming of sides dewatering, all leads and lifts, incidentals, etc. complete with ramming of bottom, surface preparation as per specifications to receive the PCC.	Cum	9200		0.00	
2	Filling with selected, suitable excavated earth already available at site or plots adjacent to site in plinths, back of retaining walls, foundations and trenches etc., or in areas for landscaping and other location as directed by the Project Manager, done in layers, not exceeding 20 cm in depth and consolidating each deposited layer by mechanical means, ramming and watering as per specifications including re-excavation, transportation, loading, unloading, carriage to dumping spot and all incidentals at all depth, levels, leads and lifts complete. (Net consolidated area fill volume will be computed from the initial and final levels. (Note : Filling shall be done with the excavated earth available at site stacked by the Contractor and/ or by the other agency) Use of expanded polystyrene (EPS) Geo foam block recommended , if the excavated earth is not available.	Cum	4600		0.00	
3	Same as item no. 1.2above but with selected good earth brought from outside. Use of expanded polystyrene (EPS) Geo foam block recommended , if the excavated earth is not available.	Cum	4600		0.00	
4	Supplying and Filling in plinth, under floor with fine Jamuna sand including ramming in layers of 20cm in depth, watering, consolidating and dressing complete as per specification and as directed by the Owner's authorized representative / Architect, including transportation, cost of sand, royalty, loading, unloading, carriage to dumping spot and all incidentals at all depths and levels, for all leads and lifts complete. (Payment shall be made for solid & compact sand calculated as per initial & finished levels on site).	Cum	1050		0.00	
5	Providing and injecting pre-constructional chemical antitermite treatment with Chloropyrifos/Landane (20% EC with 1% concentration) conforming to IS 6313 part II; that shall create a chemical barrier under and around the foundation pits, below plinth, along external perimeter of building etc; as per IS specifications and as per approved manufacturer's instructions, recommendations and to be executed by manufacturer's approved agency. Rate to also include 300mm wide chemical barrier antitermite treatment for plinth protection which shall be carried out in stages, all to the satisfaction of the Owner's Representative.	Sqm	2600		0.00	
6	Providing and laying plain cement concrete of following grades under foundation, base for rafts, underground water tank, building machine equipments, column footing, under floor landings, below road and pathways,cills, coping, screeding at roof to required slope and other locations as called for laid, consolidated and cured etc. complete including finishing the top surface to receive the next course / layer as per specification and drawing including the cost of centering and shuttering.				0.00	

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7	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm and down gauge)	Cum	555		0.00	
8	Providing and laying damp proof course 40mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate of 10.5mm nominal size) including providing and mixing of water proofing compound @ 2% of cement content and providing and applying one layer of bitumen of grade 80/100 @ 1.7 Kg/Sqm and as directed by the Owner's authorized representative / Architect.	Sqm.	2600		0.00	
9	Providing & laying in position RMC-Design mix cement concrete of M 25 grade (by using minimum 300 Kgs of Cement per cum of concrete for RCC structural elements for works up to any lead, height and level all as per drawings or as directed by Owner's authorized representative / Architect .The rate shall be excluding the cost of centering, shuttering and steel reinforcement but including cost of curing, making shear keys and provision of construction / control joints in various locations, laid, compacted, cured, testing, hacking the finished surface, dewatering while concreting wherever required, item to include all structural items like base raft, ramp, column, column capitals, wall, footings, equipment foundations, fins, mullions, beams, lintels, pergola, chajja, facia, parapet, railing, slab, sloping roof, trenches, drains and sumps etc. of any shape and sizes. The rates of concrete to include the cost of fly ash, approved admixtures in recommended proportion as per IS 9103, Plasticizers, super plasticizers, bonding agent between old and new concrete to achieve specified strength. The rate shall also include cost of pumping of concrete to site of laying for all heights and levels including laying & closing of cutout in slabs left at the time of casting of slab & filling at a later stage with same grade of concrete; free of cost. (max. qty of fly ash to be added as per IS Code: 456)				0.00	
10	Column footings (trapezoidal / stepped / flat), raft foundations, retaining wall foundations, lift shaft foundations, bottom slab of underground tanks, plinth beam, lift pits, drains, trenches ,sump pits, pedestals / base of columns, wall foundations , grade slab, machine foundation etc.	Cum	1250		0.00	
11	Suspended floors, roofs, balconies, shelves/ counters, ledge, cills, stair waist slabs, folded plate stairs and landings, lintel and floor beams, girders (deep beams), RCC bands, cantilever projections, cornices, sloping roof, slab of tank etc.	Cum	1625		0.00	
12	Columns (all shapes) pillars, piers, abutments, posts and struts, offset and projection of columns, etc.	Cum	165		0.00	
13	Retaining walls, walls other than retaining walls, water tank walls, lift walls, shear walls, swimming pool wall and ramp walls etc. (any thickness)	Cum	950		0.00	
14	Parapets, planters, facias, fins, vertical projection of balconies, pergolas, copings, cills etc. (for all heights as shown in the drawing)	Cum	50		0.00	
15	Extra for providing RCC M 30 by using minimum 330 Kgs of Cement per cum of concrete; instead of RCC M 25 for all types of work up to any lead and at all heights & levels. (max. qty of fly ash to be added as per IS Code: 456)	Cum	50		0.00	
16	Extra for providing RCC M 35 by using minimum 360 Kgs of Cement per cum of concrete; instead of RCC M 25 for all types of work up to any lead and at all heights & levels.(max. qty of fly ash to be added as per IS Code: 456)	Cum	50		0.00	
17	Extra for providing RCC M 40 by using minimum 390 Kgs of Cement per cum of concrete; instead of RCC M 25 for all types of work up to any lead and at all heights & levels. (max. qty of fly ash to be added as per IS Code: 456)	Cum	70		0.00	

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18	Providing, hoisting and fixing in super structure for first storey precast reinforced cement concrete in small lintels not exceeding 1.5m clear span including the cost of required centring & shuttering, cost of 1:2:4 hand mixed (1 cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal-size) but excluding the cost of steel reinforcement.(Qty of each unit shall not exceed 0.06cum)	Cum	15		0.00	
19	Approved Marine plywood for centering and shuttering for structural concrete work in locations called for incl. strutting, propping, bracing, bolting, ties with PVC sleeves, wedging, casing, striking, removal of Form work etc. complete for any size, section, thickness. Props shall consist of well-designed steel pipes adequately braced (wooden ballies as props shall not be permitted). The item to include centering and shuttering at all heights and levels, MS arrangements for supports, welding, earthwork to make even the soil if required. Allow for forming grooves, drip course, chamfers, cut-outs, openings etc. where called for and applying with approved shuttering oil to prevent adhesion & tapping the joints of plates/plywood after inserting foam for filling such joints. Unexposed concrete surfaces subsequently left untreated (in the condition obtained on removal of form work) shall not constitute exposed concrete work and shall be measured under this item only. Irregular shapes with sides which may not be perpendicular to each other or any other shapes like circular or curved which are not conforming to rectangle or square shall not be paid separately. The rates shall also include for leaving space for cutouts. (Up to 3.5 m height).				0.00	
20	Column footings (trapezoidal / stepped / flat), raft foundations, retaining wall foundations, lift shaft foundations, bottom slab of underground tanks, plinth beam, lift pits, drains, trenches ,sump pits, pedestals / base of columns, wall foundations , grade slab, machine foundation etc.	Sqm	400		0.00	
21	Suspended floors, roofs, balconies, shelves/ counters, ledge, cills, stair waist slabs, folded plate stairs and landings, lintel and floor beams, girders (deep beams), RCC bands, cantilever projections, cornices, sloping roof, slab of tank etc.	Sqm	9150		0.00	
22	Columns (all shapes) pillars, piers, abutments, posts and struts, offset and projection of columns, etc.	Sqm	1100		0.00	
23	Retaining walls, walls other than retaining walls, water tank walls, lift walls, shear walls, swimming pool wall and ramp walls etc. (any thickness)	Sqm	3800		0.00	
24	Parapets, planters, facias, fins, vertical projection of balconies, pergolas, copings, cills etc. (for all heights as shown in the drawing)	Sqm	125		0.00	
25	Providing, laying & Binding in position steel reinforcement for RCC work including straightening, removal of loose rust by wire brush and coating with cement slurry, cutting, bending, lifting, binding with 18G annealed steel wire, welding and placing in position to the desired shape and all profile as per approved bar bending schedules and structural drawing for works up to any lead and at all heights & levels, all complete including supply of binding wire. The rate shall also include cost of cement / approved quality PVC cover blocks. Wastages, rolling margin & binding wire etc. shall not be measured or paid extra. However; all authorize laps/chairs/ spacers/hangers shall be measured & paid for, in addition to the main reinforcement on the actual basis. Thermo - Mechanically Treated bars Fe 500 D Grade or as specified	Tons	650		0.00	
26	Providing and constructing brick masonry using selected quality First class burnt brick laid in cement sand mortar 1:6 (1 cement : 6 coarse sand) in foundation and plinth.	Cum	150		0.00	
27	First class burnt brick work laid in cement sand mortar 1:4 in first storey upto 4 metres above plinth level.	Cum	590		0.00	

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28	Extra for c above 4 meters (where any single storey exceeds 4 metres in height) for every additional height of 2 metres or part thereof for Brick Work/ Concrete Block/ Clay Block.	Cum	250		0.00	
29	Providing and constructing 115 mm thick brick wall with every fourth course reinforced with hoop iron laid in 1:4 cement mortar in superstructure	Sqm	350		0.00	
30	Extra for 115mm/100mm thick of walls done above 4 meters (where any single storey exceeds 4 meters in height) for every additional height of 2 meters or parts thereof for Brick Work/ Concrete Block/ Clay Block.	Sqm	75		0.00	
31	Water proofing treatment of RCC structures (after making the surface clean, dry & free from all internal voids or honey combs), with Zycosil /equivalent water proofing Solution (1 litre of Zycosil / equivalent & 20 litres of potable water stirred first & 2 litres of Zycoprime / equivalent added and stirred (total 23 litres)) using two coats till it meets the saturation level and testing as per RILEM or by water drops test in which water drops do not absorb but drops remain or rolls.	Sqm	3000		0.00	
32	Providing & laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: Applying a slurry cost of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer- in- charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/ brick bats 25mm to 115mm size with 50% of cement mortar 1:5 (1 cement :5 coarse sand) admixed with water proofing ompound conforming to IS: 2645 and approved by Engineer-in- charge over 20mm thick layer of cement mortar of mix 1:5 (1 cement L5 coarse sand) admixed with water proofing compound conforming to IS :2645 and approved by Engineer.	Sqm	900		0.00	
33	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg /sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/ sqm mixed with water proofing cement compound @ 0.126 kg/ sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	750		0.00	
34	Providing and applying injection grouting using cement slurry admixed with Fosroc Chemical Conplast WL or any other equivalent compound @ 300 ml/ Bag of cement through the uPVC nozzles (12mm dia uPVC/ Plastic Nozzles - 4" to 9" long @ 5 No: / Sqm of area) , provided into the cracks/ honeycombed areas using 140 PSI hand operated Grouting Pump under pressure till the refusal,doing final Cement slurry Grouting (after 28 Days),, finally cutting & sealing of Nozzle. including all labour, supervision, tools and tackles and transportation	Sqm	1900		0.00	
35	Providing and making khurrah 450mm x 450mm with average minimum thickness of 50mm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement punning , rounding the edges , curing, making and finishing the outlet complete.	Nos.	12		0.00	

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36	15mm thick cement plaster on internal surfaces of single or half brick wall on both fair & rough face of Brick wall; finished smooth over masonry & concrete work etc. for all locations called for all as per drawings & to the entire satisfaction of Owner's authorized representative / Architect.	Sqm	5000		0.00	
37	Providing and applying 10 mm thick plaster to internal / external surface / facade for RCC slab ceiling, chajjas, facia, louvers, beams & column etc. in cement mortar 1:1: 3 (1 cement : 1 coarse sand : 3 fine sand) finished smooth including hacking the surfaces, scaffolding, curing, making grooves at desired location etc. complete as per drawing.	Sqm	520		0.00	
38	Providing and applying 20 mm thick external cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 8mm thick cement plaster 1:6 (1 cement :6 fine sand) including making of grooves of sizes 12mmx12mm, 12x15 mm , 12x20mm (as mentioned on the drawing) raised bands of various width upto 200mm wide in 15mm thick fine sand cement plaster 1:3, drip course as shown in drawing, scaffolding, curing, providing & mixing water proofing compound (CICO) in both layers as per manufacturer specification etc. complete as per drawings & to the satisfaction of Owner's authorized representative / Architect (rate shall also include cost of mixing water proofing compound)	Sqm	2500		0.00	
39	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	Per Bag	10		0.00	
40	Providing and laying 62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm	300		0.00	
41	Providing & laying Epoxy Flooring 2mm thick (overall thickness) with selflevelling with Hi- build epoxy primer 100 micron thickness, self leveling epoxy screed 900 micron thickness, FQ sand and self levelling epoxy top coat having thickness 1000 microns with all materials as mentioned / required to provide desired finish to the entire satisfaction of Engineer in charge.	Sqm	2650		0.00	
42	Providing and laying vitrified floor tiles in different sizes in light colour shades made using Full Body Technology (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement: 4 fine sand), complete. (Full body vitrified tiles have pigment in entire body / thickness of tile which makes chips and scratches less noticeable and make na ideal choice for high traffic zones.)	Sqm	275		0.00	
43	Providing and laying Anti skid Ceramic floor tiles of size 300x300 mm x 10 mm thick of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on flooring skirting and dado in 12.5mm thick cement plaster 1:3 in base and jointed with @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., completewhite cement slurry in joints including corners angles and beading.	Sqm	275		0.00	

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44	Italian Marble stone flooring with 18-20 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :	Sqm	100		0.00	
45	Providing and laying flamed finish Granite stone 18mm thick in flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.)	Sqm	200		0.00	
46	Providing and laying Polished Granite stone 18 mm thick flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. (granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.)	Sqm	100		0.00	
47	Providing and laying Fine dressed red sand stone (from Agra) flooring 40mm thick set in 12.5mm thick cement mortar 1:3 jointing with cement mortar 1:2 with an admixture of pigment to match the shade of stone.	Sqm	100		0.00	
48	Kota stone slab 20-25 mm thick flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :	Sqm	1700		0.00	
49	Kota stone tiles 20mm thick in skirting risers of steps, dado walls and pillars laid in 12.5mm thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of stone, including rubbing and polishing	Sqm	100		0.00	
50	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection >0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner	Sqm	100		0.00	
51	Providing and laying laminated wooden flooring thickness 7mm to 12mm with wood grain finish for indoor usage, water resistant, with the design traffic of AC 5 grade in different textures as approved by the architect.	Sqm	488		0.00	
52	P/F of wooden Profile to match with the laminated wooden floor.	Rm	320		0.00	
53	P/F of wooden Beading as floor profiles at all locations where the level changes or the floor finish transitions from wooden to other flooring as per architects approval	Rm	100		0.00	
54	Providing and fixing Vinyl anti-static flooring in 2mm thk. with 3 layers suitable for floor use which helps in lessening the effect of ESD (Electrostatic discharge). The color and pattern shall be approved by the architect	Sqm	100		0.00	

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55	Providing and fixing 600X 600 mm floor panel size with 4.5kN N/A 12kNm ² in addition to sustain a total load of 11kN applied equally on four points, each point 25mm ² on 200x200 mm square configuration anywhere on the system with a flexible joist system upto 600mm raising to take care of network and telecom cables.	Sqm	50		0.00	
56	Marble work of thickness 18-20 mm for wall lining (vencer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps, which shall be paid for separately)	Sqm	100		0.00	
57	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases in stone and holes in walls wherever required.	Kg	150		0.00	
58	Providing and fixing 1st quality ceramic glazed wall tiles Matt/Semi Matt/Glosy/Highly Gloss finish/Highlighter/emboss conforming to IS : 15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottle green, black of size 250 x 330 mm & 300x300mm as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:4 (1 cement: 4 fine sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	Sqm	300		0.00	
59	Providing and fixing 1st quality ceramic glazed wall tiles Matt/Semi Matt/Glosy/Highly Gloss finish/Highlighter/emboss conforming to IS : 15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottle green, black of size 600 x600 mm as approved by Engineer-in- Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:4 (1 cement: 4 fine sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	Sqm	150		0.00	
60	Coloured Granite stone tiles 15mm to 20mm thick in skirting, risers of steps, dado walls and pillars laid in 12.5mm thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of stone, including rubbing and polishing including labour for fixing dowel pins and cramps.	Sqm	75		0.00	

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61	Providing and fixing mineral fibre false ceiling tiles at all heights With 16 mm thick beveled tegular mineral fibre Anti- microbial false ceiling tile of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflection > 85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in- charge.	Sqm	660		0.00	
62	Providing and Fixing ceiling consisting of POP false ceiling any size G.I. Cradling hanged from the ceiling by means of G.I. hanger complete as per drawings,specifications and tothe entire satisfaction of engineer-in- charge.	Sqm	1700		0.00	
63	Colour Washing (First coat or subsequent coat).	Sqm	5760		0.00	
64	Preparation of plastered surfaces for distempering including surface, applying filling with approved quality filler consisting of plaster of paris and chalk mitti including finishing the surface to the required finish complete.	Sqm	1900		0.00	
65	Distempering with dry distemper of approved manufacture two or more coats over one priming coat to give an even shade	Sqm	1900		0.00	
66	Painting two or more coats excluding priming coat with synthetic enamel paint in all shades on wood work, metallic or plastered, concrete surface to give an even shade.	Sqm	100		0.00	
67	Wall painting with plastic emulsion paint of approved brand and manufacturer to give an even shade (two or more coats)	Sqm	5070		0.00	
68	Preparation of plastered or concrete surface for painting (including sand papering the surface) using ready mixed cement based wall putty by applying two or more coats to get required finish	Sqm	2300		0.00	
69	Enamel Paint finish on surfaces of MS/Wooden Shutters etc.	sqm	50		0.00	
70	Melamine Matt Finish on Veneered surfaces of customised finiture and panelling	sqm	50		0.00	
71	Finishing walls with textured exterior paint of required shade with two or more coats applied @ 3.28 litre/10Sqm over and including base coat of water proofing Cement Paint applied @ 2.20 Kg/10 Sqm	Sqm	200		0.00	

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72	Solid Fire doors of required Sizes with view panel: Providing, making & fixing in position, 50 mm thick solid flushed doors with 300mm x300 mm fire rated view panel having minimum 2 hour fire rating for the Staircases/ Fanrooms/ Panel room/ Pump room etc. including Paint finish of required colour on both sides, door frame, fixing of hydraulic door closer, hinges, handles, cleaning and complete in all respects. The fire retardant enamel paint required for finishing the door frames is to be painted as per specifications. Vision Panel to be incorporated in the doors. Note: Only water soluble adhesives such as 'Fevicol' SR or equivalent shall be used. Thinner based quick drying rubberized adhesives shall not be permitted. The size of the door frames shall be minimum 100 mm x 53 mm with single rebate frame. Cylindrical locks - GODREJ with key opening on the outside and thumb turn on Inside. Door Handle - Dorset. Door Closure -Surface mounted fire rated auto door closure. Door Stopper.- DORMA make Fire Seals as applicable (Size: 1800x2400)	Nos.	14		0.00	
73	Solid Fire doors of required size without view panel: Providing, making & fixing in position, 50 mm thick solid flushed doors minimum 1 hour fire rating for the plumbing shaft / Pump room etc. including Paint finish of required colour on both sides, door frame, hinges, handles, cleaning and complete in all respects. The fire retardant enamel paint required for finishing the door frames is to be painted as per specifications. Note: Only water soluble adhesives such as 'Fevicol' SR or equivalent shall be used. Thinner based quick drying rubberized adhesives shall not be permitted. The size of the door frames shall be minimum 100 mm x 53 mm with single rebate frame. Cylindrical / latch locks - GODREJ with key opening on the outside and thumb turn on Inside. Door Handle - Dorset. Fire Seals as applicable (Size: 600x1200)	Nos.	4		0.00	
74	Laminated flush door (35 mm thick +1.5 mm thick laminate : Merino interior white 21341 or equivalent brand and shed) on both sides, Flush doors 35 mm thick in consisting of solid core in hard wood and with edges finished in teak wood lipping with mirandi wood frame (150 x 60) painted including all hardware and latches, door closer etc.				0.00	
75	Size: 750x2400	Nos.	12		0.00	
76	Size: 1000x2400	Nos.	14		0.00	
77	Size: 1200x2400	Nos.	12		0.00	
78	Size: 2000x2400	Nos.	12		0.00	
79	Size: 2400x2400	Nos.	4		0.00	
80	Size: 2600x2400	Nos.	2		0.00	
81	Providing and fixing Toilet Cubicle Made Of Heat, Bacteria, Water Chemical, Scratch, Impact & Anti Bacterial Resistant 12Mm Thick Solid Compact Laminate Panels Included Doors, Pilasters & Intermediate Panels. Cubicle L/I Shape (Centre & Front Partition) with standard dimension of Upto 1950mm height x 1050 mm width x 1500mm depth which includes 550- 600mm door size width. Rate Including all Accessories Door, Vertical Pilaster, SS304 Grade Channels & top rail, ss 316 grade shoe box, lock/latch and all required hardwares.	Nos.	10		0.00	
82	URINAL PARTITIONS 900W x 450D	Nos.	4		0.00	
83	Providing and fixing stair case railing made out of M.S. Square bars 20x20m as vertical cost 0.70 metre high fixed with M.S. Base plate of 40mx40mmx6mm and flat iron 40mmx6mm as hand rail complete in all respects.	Rmt.	45		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
84	Providing & fixing 16 gauge stainless steel pipe railing of grade 304 duly fixed on steps with the help of bolts grouted on steps with hand rail and newel post of 50mm dia Stainless steel pipe, Balusters of 40mm dia Stainless steel pipe and guard 3 Nos of 15mm dia Stainless Steel pipe complete in all respect	Rmt.	45		0.00	
85	Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-I)	Sqm	360		0.00	
86	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including provid	Sqm	45		0.00	
87	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12-6 mm insulated glass	Sqm	450		0.00	
88	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hard	Sqm	50		0.00	
89	Providing and fixing aluminum tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc Powder coated minimum thickness 50 micron aluminum tubular handle bar .complete as per direction of Engineer-in- Charge.	Nos.	7		0.00	
90	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (wit	Sqm	450		0.00	
91	Design, Providing, fixing and supplying laminated glass canopy using 17.52mm thick heat strengthened clear glass as p	Sqm	50		0.00	
92	Providing, fixing, supplying and installation of aluminium tubular fins (100 x 200 x 3 mm) vertical over pre fixed semi unitized structural glazing/Solar Panels as per approved shop drawings. Fins shall be 60-65 Micron powder coated to the approved shade / colour. Aluminium fin shall be fixed on to the glazing with s.s. screws both sides along the height with minimum 8mm thick EPDM gaskets, fixing of shall be done by 60-70mm long s.s. 304 grade screws @ 300mm c/c along the length as per conceptual details. Vertical profile shall be perfectly vertical at 90 degrees and horizontal fins to be perfectly at 180 degrees. Top and bottom of vertical profile to be closed with end caps if required and all joints of vertical and horizontal profiles to be sealed with silicon weather sealant for water tightness.	Rmt	360		0.00	
93	Providing, fixing, supplying and installation of fully fixed "Z- shape" finished aluminium louver panels with S.S. 316 grade birdmesh on inner side as per elevation and details drawings enclosed with extruded built up sections conforming to alloy 63400 WP (6063- T6 alloy) with chemical composition and mechanical properties as per IS:733:1983 and IS 1285:2002. Item cost includes all material, labour element for fitting, fabrication of louver panels, s.s. fasteners 304 grade, s.s. screws with pvc sleeve, sealant, aluminium flashing, loading / unloading, stacking, carrying to heights, cleaning and fixing in appropriate locations as per the approved shop drawines complete in all respects.	Sqm	30		0.00	
94	Supply, Fabricate, Design, Package and Fixing of ZINC- composite panel for Wall Cladding System by VMZINC/equivalent Supply of Zinc Composite panel wall cladding system comprising of top Layer 4 mm thick Zinc LDPE panels of 990 mm X 3000 mm size made with 0.5 mm QUARTZ Zinc & Aluminium skins 0.5 mm each. Alloy type - 3105, Core Material - LDPE. Virgin Core Thickness - 3 mm around the columns / dead walls / edges of roof / under side of cieling / facia etc. as shown in elevations at all heights. The standard panel size of ZCP shall be used as shaown in the elevations. The rate shall include all necessary frame work, tools and fixing / lifting equipments, scaffolding, technical personal and as per technical specifications, complete as per details.	Sqm	250		0.00	
95	Structural steel work in single section, fixed with or without connecting plate,including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	250000		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
96	Providing and fixing the approved Metal Sheet (2 mm thick) Panel Cladding for the Lotus Surface work in all height and locations including bracing, welding etc. complete for any size, section, thickness. Required MS base frame work , other than Main Strcuture, as per sheet size, welding, allow drip course, cut-outs, openings etc. where called for and applying the joints. The Work shall constitute be measured under this item only. All Irregular shapes with sides which may not be perpendicular to each other or any other shapes like circular or curved which are not conforming to rectangle or square shall be included. <u>The rates shall also include for leaving space for cutouts.</u>	Sqm	8330		0.00	
97	Providing and erecting in position the scaffolding for supporting and removing the fiber glass shuttering / moulds for Statue, outside surface preparation / carving /rendering works and final finishing works . The item to include erecting and scaffolding in position at all heights and levels as per the requirement and instruction of engineer in charge and Statue Artist. MS arrangements for supports and welding.Props shall consist of well-designed steel pipes adequately braced.				0.00	
98	Pipe 2 M	No.	1,500		0.00	
99	Pipe 3 M	No.	500		0.00	
100	Pipe 3.5 M	No.	250		0.00	
101	Pipe 6 M	No.	600		0.00	
102	Steel Panks	No.	200		0.00	
103	Clamps	No.	1,500		0.00	
104	Jack Screws	No.	1,250		0.00	
105	Preparation of detailed Statue Model in POP/Clay (1500 MM high) in scale of the Proposed Emblem with Base for client <u>/Consultant Approval.</u>	No.	1		0.00	
106	Provide the Supervising Artitsits and skilled Staff at site from Starting to completion of the Lotus with Supporting labour, binder expert of similar jobs. Work includes checking and confirming of placement of Structural Members as per layout and shaping of surface wall, placement of Metal cladding sheets in position with proper support and ties and supervise the placement. After itallation, repairing of all joints, rubbing, carving/rendering of the surface as per required shapes and detailing as per approved Model and smooth fininshing of the metal surface. Rate should be quoted for the complete supervision of the Lotus 15 M height above 9 M high Building . Dedicated full time Artists/Supervisers and expert labour at site, estimated completion time and periodic visit (2 Visit in Month) of the Pricinal Artist/ Sculpturist	No.	1		0.00	
107	Providing & Applying Metal coating and polishing of approved brand, shade & finish, coats on new work over a primer under coat including thoroughly preparing and rubbing the surface as per and all as per manufacturer's specifications. The rate shall also include cost of grinding and polishing, complete all as per consultants and artist directions, for works at all heights & levels, excluding the cost of providing & erecting scaffolding.	Sqm	8,330		0.00	
108	Providing & fixing Black Granite counter top / Engineered stone in toilets & kitchen over a 19mm thick layer of cement mortar (1 cement : 4 course sand) OR appropriate adhesive and joined with neat cement slurry mixed with pigment to match the shade of granite including making holes for wash basin / sink (under counter) including edge polishing around basin and edge moulding as per approval of architect (Granite stone - Black 17 mm thk) (Wastage to be considered in rate. Payment for only finished area) with lead upto tenth floor.	Sqm	30		0.00	
109	Providing toilet counter with 12mm thk. corean	sqm	6		0.00	
110	Providing and cladding on wall tiles - glass mosaic with plaster base including grouting over the tiled surface and adhesive etc.	sqm	270		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
111	carpet/Carpet Tile of size 500 X 500 of loop pile construction of ht. 4.0mm to total thickness of 6mm with glass reinforced PVC	sqm	460		0.00	
112	Supply and placement of Fiber Reinforce Concrete. Grade of concrete – M30 with CC100® (liquid hardener). Price to include Levelling, flattening, and finishing of concrete flooring as per ASTM standards. Providing forms, tools, and other required machinery. Supply and placement Civiqo Fiber 1Kg Macro Fiber and 2Kg Micro Fiber. Placement of concrete to include Supply and installation of dowels as per requirement. Installation and sealing of construction and control joints in accordance with ASTM specifications to be included. Carrying out the densification job by using Civiqo Lithium Silicate densifier to make the surface dust free with acrylic sealer finish.	sqm	100		0.00	
113	Providing and fixing in position multi level laminate on 20mm commercial board false-ceiling suspended on G.I. frame work in design as shown in the drawing. The G.I. frame work consist of Perimeter channel of size 27mm x 0.5mm. Intermediate channel of size 45mm x 0.5mm thick. Ceiling section of 0.5mm thickness. Ceiling to make provision for alcove on one side. Rate to include making necessary cut-outs/openings for light fittings. (Wastage to be considered in rate. Payment for only finished area) (Greenlam Laminate techno steel or super gloss finish)	sqm	500		0.00	
114	This shall consist of 'U' shaped pre-painted GI of 0.4mm folded sections, centre to centre distance between baffle is 125mm & baffle to baffle distance is 100mm. (which can be modified as per architect/designers requirement). The size of the 'U' sections shall be 25mmx100mm and shall be available in length of 1200mm.	sqm	500		0.00	
115	Providing and fixing 600mm x 1200mm acoustic ceiling 20mm thick with 0.9 NRC in all blocks with appropriate frame work in aluminum section of size 38mm by 38mm and 12 mm gauge at ceiling level. Item to include all material, labour, scaffolding and carriage in all leads, scaffolding and lifts complete. Basic Rate = Rs 190/- per sqft	sqm	700		0.00	
116	Providing and fixing Gypsum board partition with G.I. frame work in design as shown in the drawing. The G.I. frame work consist of Perimeter channel of size 27mm x 0.5mm. Intermediate channel of size 45mm x 0.5mm thick. vertical section of 0.5mm thickness. 12.5mm thick tapered edge gypsum plaster board fixed to ceiling channel with 25mm dry wall screws at 230mm centers Jointed and finished with requisite filler, paper tape, finisher and primer suitable for Gypsum plaster boards.	Sqm	50		0.00	
117	P/F softwood framework for Partition with framework of 2ftx2ft minimum with 8 mm comm. Ply as base for laminate or gypsum board as base for paint or waterproof commercial ply in pantry area as base for tiles/ storage/ laminate as required. Places where TV is proposed to be made to strength accordingly	Sqm	43		0.00	
118	Acoustic Partition Wall (To achieve reverberation time close to .6 sec (as calculated by Wallace Sabine method) good for amplified sound and ambient noise.) Making a 2'x2' approx. grid in hard wood Filling the 2" gap in the partions with of 1000 gsm density, 100 mm polyfiber slabs "Mikron", sealing it with net, from both sides (to achieve the absorption coefficient close to 0.9). Making panels in MDF, as per size and the design, selectively perforating them manually, pasting 26 density, 10 mm U-Foam, and stretching the selected fabric (upto Rs.500/- per metre), securing it by pasting to avoid stretch marks. These panels would be fixed on the acoustic wall prepared as mentioned with metal tacks.	sqm	100		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
119	Acoustic Wall Panelling (To achieve reverberation time close to .6 sec (as calculated by Wallace Sabine method) good for amplified sound and ambient noise.) Making a 4'x2' approx. grid in hard wood, fixing it to the wall with a gap of 25 mm for air cushioning, with an overlay of 1000 density, polyfiber slabs "Mikron", sealing it with net, (to achieve the absorption coefficient close to 0.9). Making panels in MDF, as per size and the design, selectively perforating them manually, pasting 26 density, 10 mm U- Foam, and stretching the selected fabric (upto Rs.500/- per metre), securing it by pasting to avoid stretch marks. These panels would be fixed on the acoustic wall prepared as mentioned with metal racks.	sqm	100		0.00	
120	P/F softwood framework for panelling with framework of 2ftx2ft minimum with 8 mm comm. Ply as base for laminate or gypsum board as base for paint as required.	Sqm	218		0.00	
121	P/F 12mm thk toughened glass panels fixed with Aluminium U channel at bottom of floor/ partition and inside the ceiling as per manufacturers specification all complete as per design and drawing. Channel to be secured on top with requisite wood batten supports in partition	Sqm	168		0.00	
122	P/F 3m film on glass panels as per pattern / design specified by the architect 3M translucent graphic film in red base colour	Sqm	168		0.00	
123	P/F Mirror panelling , 5mm thk stuck over 6 mm ply with appropriate adhesive on the wall as/ dwg	Sqm	22		0.00	
124	Column Panelling	Sqm	18		0.00	
125	P/F Skin type S1 laminate of approved colour/shade/design over comm. Ply as approved by the architect	sqm	50		0.00	
126	P/F Skin type S8 artificial grass as approved by the architect.	Sqm	20		0.00	
127	P/F Skin type S3 white oak veneer with polish as approved by the architect.	sqm	10		0.00	
128	P/F Skin type S13 - Fabric Covered Pin Board made with 12mm thick Sitatex Pin board covered with Fabric. This skin will be attached to the partition . The Fabric range will be of with basic rate of being Rs 350/- per mtr. Suggested brand: Response/Impact	sqm	18		0.00	
129	P/F Overhead storage cabinets 375 mm deep in 18mm thk. both sides pre-lam Comm. board construction with 6mm thk. pre-lam Comm. backing. The horizontal and vertical divisions shall be as per architects . All the visible surfaces - exposed & inside shall be in pre-lam finish as per approval . All edges will have edge binding tape/laminate of matching colour. All the shutters shall have auto-closing hinges and laminate/edge binding on the edges. All shutters shall be out of rubberwood . ((Greenlam Laminate techno steel or Marino))	Rm	30		0.00	
130	P/F low ht. under counter storage for Pantry/Workstations 600 deep in 19mm thk. BWP comercial board construction. The horizontal and vertical divisions shall be as per the drawing/details. All the visible surfaces - exposed & inside shall be in pre-lam finish as per approval . All edges will have edge binding tape/laminate of matching colour. All the shutters shall have auto-closing hinges and laminate/edge binding on the edges. All shutters shall have superior quality locks	Rm	70		0.00	
131	P/F low Full ht. storage for Wardrobe 600 deep in 19mm thk. BWP HDHMR board construction. The horizontal and vertical divisions shall be as per the drawing/details. All the visible surfaces - exposed & inside shall be in pre-lam finish as per approval . All edges will have edge binding tape/laminate of matching colour. All the shutters shall have auto-closing hinges and laminate/edge binding on the edges. All shutters shall have superior quality locks.	Rm	23		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
132	Providing and manufacturing the work station tubular framework as per the given design in 20 Gauge (SWG) wall thickness square MS pipe in cross section 35mmx35mm with spot welding/Electrical Arc welding, with grinding and powder coating in desired color etc Providing manufacturing and fixing the cable raceway and cable manger as per given design in 12 Gauge (SWG) MS CNC cut and spot welded powder coated in desired color Providing and manufacturing the pedestal in 12 Gauge (SWG) MS sheet as per design provided prepared using CNC laser cut and spot welded, powder coated in desired color all complete as desired Assembly of the all components above and providing them in desired given shape as per drawing including all grinding , fixing , providing fastners etc. all complete all complete.	Nos.	30		0.00	
133	P/P two level Reception Counter RC1 size : 3000 x 900 made of 18 mm Comm. Board and multi level facia finished in laminate. The counter to include a side return unit of size 1050 x 750 . (Greenlam Laminate techno steel or super gloss finish)	Nos.	2		0.00	
134	P/P Caf� Counter 4400 x 900 mm with rear Unit Table to be Greenlam Laminate techno steel or super gloss finish with a little bit of white oak veneer or leather. Rear cabinet in laminate. Rear unit to have drawers	Nos.	1		0.00	
135	Executive Chairs	Nos.	72		0.00	
136	Conference room table	Nos.	2		0.00	
137	Board room table	Nos.	1		0.00	
138	Lunch Room Table	Nos.	15		0.00	
139	Caf� Chairs	Nos.	32		0.00	
140	DISPLAY WALL (including Corean work wood work, paint work and 40" TV for display)	sqm	15		0.00	
141	Library Table	Nos.	4		0.00	
142	Library Book Stacks	Nos.	10		0.00	
143	Library Chairs	Nos.	16		0.00	
144	LED Wall Base Structure with Outer Body frame which is fixed on the floor. "Supply, Installation, Testing and Commissioning of MS Structure - Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with charge.steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits, switch boards etc., including providing with minimum 1 coat of approved steel primer etc. complete, all as per direction of Engineer-in-charge Note: The contractor shall submit fabrication drawings for work involved based on construction drawings (that may be issued during construction period) for approval by the Engineer-in-Charge. The fabrication work shall start only after approval of the fabrication drawings. Welding shall be carried out by qualified welders."	sqm	32		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
145	"Provision, fixing & application of Backlit Graphic L-shaped pillars 3700 mm high fixed to the floor & ceiling for necessary support also known as Silicon Edge Graphics (SEG) of 190 - 210 gsm polyester fabric, FR rated, giving a edgeless or frameless feel made out of metal frame, and a fabric material using a UV printing process having a thin silicon beading sewn around the edge of the printed graphic which fits on a channel around the outside of the framing. with a provision of light box made out of prelam perforated sheet having arrangement of LED strip lights enough for the desired brightness of the graphic, fitted to Lit line finish in the bottom & the top unit to lit up the Installation with the desired colour of light finish along with work that needs to be done on the front panel with the frame of the outer body finish by PU paint as per design. The TV screen which is embedded on the wall along with the light box shall be housing all necessary electrical points and wiring as per the requirement. Size: 625 x 3700 mm each", around the tree, as per design.	sqm	22		0.00	
146	LED TV Structure with Outer Body frame which is fixed on the floor. with Outer Body frame which is fixed on the floor. "Supply, Installation, Testing and Commissioning of MS Structure - Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with charge. steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits, switch boards etc., including providing with minimum 1 coat of approved steel primer etc. complete, all as per direction of Engineer-in-charge Note: The contractor shall submit fabrication drawings for work involved based on construction drawings (that may be issued during construction period) for approval by the Engineer-in-Charge. The fabrication work shall start only after approval of the fabrication drawings. Welding shall be carried out by qualified welders."	sqm	25		0.00	
147	Provision and Fixing of Complete installation with Graphic wall pasted on the installation which is Made out of industrial-grade, termite proof HDMR board, along with Graphic, wood batten & wood frame inside the panel for the strength & support, work that needs to be done on Graphic wall using Digitally printed vinyl pasting as per the Design.	Nos.	1		0.00	
148	Provision, fixing & applying of Interactive Touch Kiosk which is made out of industrial-grade BWP plywood & termite proof HDHMR board as per the design, wood batten & wood frame cross-section inside the table for the Strengthening & support, and PU paint finish to the outer body of the table with all necessary Hardware, with provision of Electrical points & Data Raceways and leaving appropriate provision for connection to the points on floors/ Raceways/Junction Box Lit line finish in the bottom & the top unit to lit up the Installation with the desired color of light complete as per the design and drawing . Size: 1300 x 610 x 1025 mm	Nos.	4		0.00	
149	Supply Installation, testing & commissioning of active LED video wall along with processor with pixel pitch of 2.0 mm or less, Size 13420 mm X 2087 mm +/- 10%, 600 nits or more brightness, Minimum 14 bit processing, 16:9 aspect ratio per tile, Full front serviceability, IP 20 certified or better, >5000:1 contrast or more, 97% uniformity, Refresh rate of 3000 Hz or more, LED life: 100000 Hrs or more, Processor & LED from same make & should have automatic calibration & remote monitoring facility, LED wall should be supplied with basic wall mounting system from OEM. CE, UL/ETL/CB, FCC classA, RoHS, BIS certifications. Any cables, accessories required for installation and connection of display cable to the server room should be included in the cost.	sqm	10		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
150	Supply, Installation, Testing & Commissioning of 10000 Center Lumens with +- 5% variation, 1 Chip DLP Laser Projector, WUXGA resolution, 10000:1 or more Contrast Ratio, 20000 Hrs Illumination Lifetime, Inbuilt Blending & Warping, HDMI, HDBaseT, RS232/Ethernet, To be supplied with UST lens of throw ratio 0.36:1. Any cables, mounting, accessories required for installation and laying of display cable to server room should be included in the cost.	Nos.	2		0.00	
151	Supplying, Installation, testing & commissioning of 55 inch or more LCD -Back Lit LED,Resolution-3840*2160 (UHD), Landscape & Vertical Support ,Brightness - 500 nits or Higher,Contrast Ratio -1100:1, Anti Glare Treatment on Surface, Input ports -HDMI(3), DP(1)/DVI-D(1),LAN Port (1),USB(1),Output Port-DP/HDMI Display Should support central controlling through SNMP,Wake on LAN, Certificates -UL/NRTL/CE, FCC,BIS with extension to connect display interface to the server placed in server room.	Nos.	1		0.00	
152	Supplying, Installation, testing & commissioning of 85 inch or more LCD -Back Lit LED,Resolution-3840*2160 (UHD), Landscape & Vertical Support ,Brightness - 500 nits or Higher,Contrast Ratio -1100:1, Anti Glare Treatment on Surface, Input ports -HDMI(3), DP(1)/DVI-D(1), LAN Port (1),USB(1),Output Port-DP/HDMI Display Should support central controlling through SNMP,Wake on LAN, Certificates -UL/NRTL/CE,FCC,BIS with extension to connect display interface to the server placed in server room.	Nos.	1		0.00	
153	Supplying, Installation, testing & commissioning of 65 inch or more LCD -Back Lit LED,Resolution-3840*2160 (UHD), Landscape & Vertical Support ,Brightness - 500 nits or Higher,Contrast Ratio -1100:1, Anti Glare Treatment on Surface, Input ports -HDMI(3), DP(1)/DVI-D(1),LAN Port (1),USB(1),Output Port-DP/HDMI Display Should support central controlling through SNMP,Wake on LAN, Certificates -UL/NRTL/CE,FCC,BIS with extension to connect display interface to the server placed in server room.	Nos.	4		0.00	
154	Supplying, Installation, testing & commissioning of 55 inch LCD -Back Lit LED, Resolution 1,920 x 1,080 (FHD),Built inTouch IR/Inglass/Capacitive/Incell,Brightness - 350 nits or Higher,Anti Glare Treatment on Surface, Input ports -HDMI(2),LAN Port (1),USB(1), Certificates -UL/NRTL/CE, FCC,BIS with extension to connect touch & display interface to the server placed in server room.	Nos.	5		0.00	
155	Supplying, Installation, testing & commissioning of 32 inch LCD -Back Lit LED, Resolution 1,920 x 1,080 (FHD),Built inTouch IR/Inglass/Capacitive/Incell,Brightness - 350 nits or Higher,Anti Glare Treatment on Surface, Input ports -HDMI(2),LAN Port (1),USB(1), Certificates -UL/NRTL/CE, FCC,BIS with extension to connect touch & display interface to the server placed in server room.	Nos.	4		0.00	
156	Supply Installation Testing, & commissioning of Videowall Panel Size 55 inch with Resolution of 1920 x 1080 (FHD) Brightness 500 cd/m2 or above, Contrast ratio 1100:1 & Dynamic / Mega 500,000:1,Bezel to Bezel 0.88mm GAP or less Viewing Angle (H x V) 178 x 178 , Orientation Portrait & Landscape, Input Ports HDMI -Minimum 1, DP - Minimum 1, DVI-D-Minimum 1 ,RJ45- Minimum 1,Built in/External MediaPlayer with Internal Minimum Memory 8GB Quadcore Processor,2 GB RAM or Higher configuration as required,Calibration facility Wake on LAN,with required hardware and accessories as per design and drawing directed by Architect Consultants.Certificates -UL/NRTL/CE, FCC,BIS with extension to connect display interface to the server placed in server room.	Nos.	5		0.00	
157	Supply Installation Testing & Commissioning of CPU with following specification: Processor intel core i7 latest Generation, or higher Wireless keyboard and mouse, 16GB DDR4 RAM, having 16 GB GPU to drive HDMI output	Nos.	3		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
158	Supply Installation Testing & Commissioning of CPU with following specification: Processor intel core i5 latest Generation, or higher Wireless keyboard and mouse, 8GB DDR4 RAM, having 2GB GPU to drive HDMI output	Nos.	6		0.00	
159	Supply, Installation, Testing & Commissioning of Software to receive Touch from the Touch panels and show content based on that with capability to broadcast system status, current runtime in milliseconds of the running video on local network for integration with Audio Guide, the accuracy of the broadcasted timestamp should be in realtime with video being played.	Nos.	6		0.00	
160	Supply, Installation, Testing & Commissioning of Software to play video on projection having capability of blending, wrapping and ability to broadcast system status, current runtime in milliseconds of the running video on local network for integration with Audio Guide, the accuracy of the broadcasted timestamp should be in realtime with video being played. The video should be seamless without any flicker when the loop repeats.	Nos.	31		0.00	
161	Supply, Installation, Testing & Commissioning of Software to play video on Display Panels with capability to broadcast system status, current runtime in milliseconds of the running video on local network for integration with Audio Guide, the accuracy of the broadcasted timestamp should be in realtime with video being played. The video should be seamless without any flicker when the loop repeats.	Nos.	3		0.00	
162	Supply, Installation, Testing & Commissioning of Software to play video on LED Wall having capability of sending 4 or more videos from corresponding HDMI outputs and ability to broadcast system status, current runtime in milliseconds of the running video on local network for integration with Audio Guide, the accuracy of the broadcasted timestamp should be in realtime with video being played. The video should be seamless without any flicker when the loop repeats.	Nos.	1		0.00	
163	Supply Installation Testing & Commissioning of IR Based Motion sensor to track the position of person around 3 - 5 m. The sensor should support USB port and connect to CPU/Server for exchanging information.	Nos.	1		0.00	
164	Supplying, Installation, testing & commissioning of Holographic Glass with 65% transparency and fixed along the edge.	Nos.	1		0.00	
165	Supply, Installation, Testing & Commissioning of Two-Way 6.5" Coaxial Ceiling Loudspeaker with Extended Bass ,Frequency Range (-10 dB): 55 Hz – 20 kHz, Frequency Response (± 3 dB): 75 Hz – 17 kHz, Power Capacity: 150W Continuous Program Power, Nominal Sensitivity : 91 dB , Nominal Coverage Angle : 120° conical coverage, Rated Maximum SPL :110 dB @ 1 m (3.3 ft) average, 116 dB peak, Rated Impedance 8 ohms (in bypass mode) ,Transformer Taps 60W, 30W, 15W, (& 7.5W @ 70 V) , NFPA90 & NFPA 70 rated , LF Driver: 165 mm (6.5 in). HF Driver : 25 mm (1 in).	Nos.	5		0.00	
166	Supply, Installation, Testing & Commissioning of 8" In- High Ceiling Subwoofer, Frequency Range 32 Hz - 300 Hz, Sensitivity 95 dB, 70V/100V Taps 80W, 40W, 20W, Rated Maximum SPL: 115 dB Peak, Power Capacity: 200 Watts Continuous	Nos.	2		0.00	

Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
167	Supply, Installation, testing & commissioning of Eight-channel, 125W @ 4Ω Power Amplifier, Sensitivity :1.4 V , Rated Power Output (all channels driven): 125W per CH @ 4 ohms, 125W per CH @ 8 ohms, Signal to Noise Ratio (below rated power 20 Hz to 20 kHz, A-Weighted) 110 dB, THD (full rated power, 20 Hz - 20 kHz) : < 0.05% , Intermodulation Distortion (from 0 dB down to -30 dB) : < 0.05% , Frequency Response (at 1W, 4/8 ohms) :+/- 0.5 dB, Crosstalk (below rated power) 20 Hz to 1 kHz : > 70 dB , Common Mode Rejection (20 Hz to 1 kHz) >: 55 dB, typically > 70 dB , Voltage Gain : 27 dB , IEC Power Connector 15A	Nos.	1		0.00	
168	Aluminium Windows of frame:W66-67, Sash:W83-84 extruded Profile 28mm (ie. double glazed) glass specs as 4mm Diamant - 20mm 90% Argon - 4mm Planitherm Total with spacer Bar 20mm Swiss Ultimate with all necessary Hardware of approved make or as per Engineer in Charge.	sqm	912		0.00	
169	Supplying and Filling with selected earth brought from outside the complex including all leads and lifts, cost of earth, royalty, excavation, transportation, loading, unloading and filling in layers not exceeding 20 cm in depth,breaking clods, consolidating, watering, ramming and rolling every third and top most layer with 10 T capacity road roller including dressing in required profile etc. complete.	Cum	750		0.00	
170	Preparation of subgrade by excavating earth to an average of 300 mm depth, dressing to camber and consolidating with 10 T capacity road roller compacting upto optimum moisture content including making good the undulation to receive the hard base and disposal of surplus earth as directed by Engineer-in-charge.	Sqm	600		0.00	
171	Providing and laying 18-20mm waterproof water - tight smooth cement finished plaster in cement mortar 1:4 (1cement: 4 coarse sand) and adding Accoproof or Cicco or other approved water-proofing agent as per manufacturer's specification , finished smooth in line,level and plumb including curing, scaffolding, hacking RCCsurfaces, raking joints etc. complete at all levels as directed and specified.	Sqm	500		0.00	
172	Providing and laying stone soling to WATERBOUND MACADAM AND HARDCORE in one layer with 90-63 mm sizes stone aggregate (2.7 cu m/10 sqm) for 200 mm thick consolidated thickness including sorting, spreading to templates, packing with smaller stones, rolling, binding with moorum @ 0.09cu m/10 sqm, watering and consolidating with road roller of 8-10 tonnes capacity complete including supplying, spreading, and consolidating the binding material as directed (Consolidated thickness of WBM shall be measured and paid for.To achieve the proctor density 95%.)	Cum	170		0.00	
173	Providing and laying WATERBOUND MACADAM AND HARDCORE in single layer of 100 mm consolidated thickness with 63- 40 mm sized stones aggregate (1.35 cu m/ 10 sqm for 100mm thick) including sorting, spreading to template, packing with smaller stones, rolling, binding with moorum, watering and consolidating with road roller of 8-10 T capacity including supplying, spreading and consolidating the binding material as directed (Consolidated thickness shall be measured and paid for.To achive the proctor density 95%.)	Cum	90		0.00	
174	Providing and laying of Granite Stone 20mm thk Finish: Serrated Colour : as per design Laid to pattern design ,max 3mm wide joint using matching grout bedded on 25mm thick mortar bed laid on concrete base	Sqm	125		0.00	
175	Providing, fabrication and fixing of CNC cut feature in bronze as per design	Nos.	4		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
176	Providing and laying of SandStone 20mm thk Finish: polished Laid as cladding & coping for planters	Sqm	880		0.00	
177	Providing, fabrication and fixing of Seats in Sand Stone 40mm thk Finish: polished as per design	Nos.	5		0.00	
178	Providing, fabrication and fixing of Catch basins as per design intent	Nos.	10		0.00	
179	Providing and laying Cobble in yellow granite in paving of sizes 100x100x40mm. thick as per design / drawing of approved colour and size,laid over 20mm thick cement mortar bed 1:4 (1 cement : 4 coarse sand) jointed with neat white cement slurry mixed with pigment to match the shade of stone including curing and finishing etc. and all incidentals complete.	Sqm	500		0.00	
180	Providing and laying MOSAIC TILE within water bodies of approved make in colours such as hues of blue laid on flooring skirting and dado in 12.5mm thick cement plaster 1:3 in base and jointed with @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., completewhite cement slurry in joints including corners angles and beading.	Sqm	1440		0.00	
181	Supplying of good earth/ soil-less media and/or organic matter, preparation of top dressing mixture or pot media Screening	Cum	420		0.00	
182	Procuremnt and planting of trees named PLUMERIA ALBA. Trees to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	5		0.00	
183	Procuremnt and planting of trees named CASSIA FISTULA. Trees to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	5		0.00	
184	Procuremnt and planting of trees named AZADIRACHTA INDICA. Trees to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	5		0.00	
185	Procuremnt and planting of trees named NEOLAMARCKIA CADAMBA Trees to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	5		0.00	
186	Procuremnt and planting of trees named DELONIX REGIA Trees to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	8		0.00	
187	Procuremnt and planting of topiary named FICUS NITIDA. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	18		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
188	Procuremnt and planting of shrubs named ADENIUM. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	36		0.00	
189	Procuremnt and planting of shrubs named CANNA LILY RED. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	500		0.00	
190	Procuremnt and planting of shrubs named DRACAENA MAHATMA. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	100		0.00	
191	Procuremnt and planting of shrubs named FICUS PANDA. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	100		0.00	
192	Procuremnt and planting of shrubs named FICUS BENJAMINA All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	100		0.00	
193	Procuremnt and planting of groundcover named PENNISETUM WHITE. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	125		0.00	
194	Procuremnt and planting of groundcover named RUSSELIA JUNCEA All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	500		0.00	
195	Procuremnt and planting of groundcover named AGLAONEMA RED. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	250		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
196	Procuremnt and planting of groundcover named ASPARAGUS MEYERI All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	200		0.00	
197	Procuremnt and planting of bamboo trees named RINGAL BAMBOO. All plantations like Trees, shrubs ground cover, etc. to be planted in prepared ground as detailed: including all Cultivia compost and fertilisers, tree stakes, tree ties, temporary planting screens mulch and the like, as per specifications and drawings for the plantations including trees, ground cover, shrubs, etc.	Nos.	200		0.00	
198	Procuremnt and planting of Fine grassing including uprooting rank vegetation and weeds by digging the area to a depth of 3	Sqm.	840		0.00	
199	Installation of green roof structural layers on already waterproofed roof deck/Planters. Base layers for Extensive and semi- i	Sqm.	510		0.00	
200	Providing and fixing Artisanal flooring with Inlay in reception area, drawings & details fixed with Mortar, requirements. Rates shall include labour, Transportation, Installation, Equipments as per instructions of Site Engineer / Architect.	Sqm	200		0.00	
201	Providing and fixing , Decorative pillars with stone jaali work free of defects at all heights using CNC machines as per approved designs with concealed structure / supporting system os SS Rame work of 304 grade . All complete as per approval of Site engineer / Architect .All labour and machinery inclusive at locations	Sqm	3000		0.00	
202	Providing and fixing 1050mm high stone railing with 40mm thk sandstone as indicated with all labour and machinery inclusive at connecting corridor locations .as per instructions of Site Engineer / Architect at all locations. drawings & details fixed with Mortar , SS 304 Clamps , SS 304 Frames as per design requirements .Rates shall include labour , Transportation , Installation , Equipments as per instructions of Site Engineer / Architect .	RM	500		0.00	
203	Providing & Fixing Fountains & Water bodies at different levels as drawings inclusive of , Motors , Filters , MEP , Plumbing , Tile work at all locations inclusive of labour and all machinery as per instructions of Site Engineer / Architect .	Nos	6		0.00	
204	Providing and fixing , Sandstone Sulptures as per design & Story Line . The cost shall include all materials , labour and machinery inclusive. drawings & details fixed with Mortar , SS 304 Clamps , SS 304 Frames as per design requirements .Rates shall include labour , Transportation , Installation , Equipments as per instructions of Site Engineer / Architect .	Nos	10		0.00	
205	Benches , Moldings , solid stone carving works made out of Sand Stone & Granite in various elements as per drawings & details fixed with Mortar , SS 304 Clamps , SS 304 Frames as per design requirements .Rates shall include labour , Transportation , Installation , Equipments as per instructions of Site Engineer / Architect .	Cum	30		0.00	
				Sub Total of PartA:	0.00	
PART: B	ELECTRICAL					

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
206	Wiring for Light / Ceiling Fan / Exhaust Fan / Call Bell point in following groups with 1.5 Sq. mm PVC insulated FRLS flexible copper conductor wire of 650 volts grade drawn in ISI Marked heavy duty uPVC conduit on surface of the wall, in the wall or in ceiling / false ceiling with continuous run of 1.5 Sq. mm PVC insulated FRLS flexible green colour copper earth wire for earthing the fixtures including circuit wiring with 2.5 Sq. mm PVC insulated FRLS flexible copper wires from DB to first tap off point / switch board of the circuit along with 1.5 Sq. mm PVC insulated FR flexible green colour copper earth wire for earthing fittings including modular switches and zinc cromated metal box complete as required :-All MCBs shall be already provided in DBs. The Points shall start from the the LDB / P DB / LPDB / UPSDB and terminate at the fixture via switch or MCB as the case may be. This shall include the length of incoming circuit to fixture either directly from SDB via switch or from switch to switch as the case may be. Maximum average length of circuit wiring considered is 30 Mtrs. Maximum average length of primary point wiring considered is 6 Mtrs. Maximum average length of secondary point wiring considered is 3 Mtrs. Maximum average length of secondary point wiring considered in corridors is 15 Mtrs.				0.00	
207	Primary Light point controlled by one 6A SP switch.	Pts.	175		0.00	
208	Primary Light point directly controlled by SPMCB. (For Normal Supply in Corridors)	Pts.	15		0.00	
209	Secondary point i.e. points to be looped with primary point.	Pts.	475		0.00	
210	Secondary point i.e. points to be looped with primary point. (For Normal Supply in Corridors)	Pts.	25		0.00	
211	Exhaust fan point including 6 amp socket near the Exhaust fan and 6 Amp. SP switch in the switch board. (For Main LT Panel Room)	Pts.	5		0.00	
212	Ceiling fan point with step type regulator, fan rod and 6 Amp. switch.	Pts.	15		0.00	
213	Primary Light Point Controlled by one no. SP switch (For Inverter/UPS Supply)	Pts.	85		0.00	
214	Primary Light Point directly controlled by SPMCB (For Inverter/UPS Supply in Corridors)	Pts.	20		0.00	
215	Secondary Point i.e points to be looped with Primary Point (For Inverter/UPS)	Pts.	160		0.00	
216	Secondary Point i.e points to be looped with Primary Point. (For Inverter/UPS in Corridors)	Pts.	20		0.00	
217	Convenience / Light Plugs Points: Light Plug Points: Wiring for 5 pin 6 A Light plug points with 2 x 1.5 Sq. mm PVC insulated FRLS flexible copper conductor wires of 650 Volts grade drawn in ISI marked heavy duty uPVC Conduit pipe on surface or recessed in wall/ ceiling/ false ceiling with continuous run of 1.5 Sq. mm PVC insulated FRLS flexible green colour copper earth wire for earthing the third pin including 2 x 2.5 sq.mm wires from DB to first light plug including 6 Amps modular switch, 3 pin 6 Amps socket outlet, cover plates and zinc cromated metal box including connections etc. complete as required :-				0.00	
218	Normal Supply: One Socket controlled by one switch	Nos.	60		0.00	
219	Normal Supply: Secondary Point looped by primary point with one 6 amp. Switch	Nos.	60		0.00	
220	UPS Supply: One Socket controlled by one switch.(UPS Primary)	Nos.	60		0.00	
221	UPS Supply: Secondary Point looped by primary point with one 6 amp. Switch	Nos.	40		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
222	Power Plugs: Wiring for 6 pin 15/16 A Power plug points with 2 x 4.0 Sq. mm PVC insulated FRLS flexible copper conductor wires of 650 Volts grade drawn in ISI marked heavy duty uPVC Conduit pipe on surface or recessed in wall/ ceiling/ false ceiling with continuous run of 2.5 Sq. mm PVC insulated FRLS flexible green colour copper earth wire for earthing the third pin including wires from existing DB to plug point including 16 Amps modular switch, 6 pin 16 A socket, cover plates and zinc cromated metal box including connections etc. complete as required :-				0.00	
223	Two outlets per circuit	Sets	50		0.00	
224	One outlet per circuit	Sets	70		0.00	
225	Wiring for universal 13 A convenience outlets with 2 x 4.0 Sq. mm PVC insulated FRLS flexible copper conductor wires of 650 Volts grade drawn in ISI marked heavy duty uPVC Conduit pipe on surface or recessed in wall/ ceiling/ false ceiling with continuous run of 2.5 Sq. mm PVC insulated FRLS flexible green colour copper earth wire for earthing the third pin including wires from existing DB to plug point including 13 Amps modular switch, 13 A universal socket, cover plates and zinc cromated metal box including connections etc. complete as required :-				0.00	
226	Normal Supply: Two outlets per circuit	Nos.	85		0.00	
227	Normal Supply: One outlet per circuit	Nos.	85		0.00	
228	UPS Supply: Two outlets per circuit	Nos.	40		0.00	
229	UPS Supply: One outlet per circuit		30		0.00	
230	Industrial Type Sockets (For Kitchen Equipments like Dishwasher, Oven and Chimney, etc). Wiring for 16 A Weather Proof plug & socket, single phase outlets with 2 x 4.0 Sq. mm PVC insulated FRLS flexible copper conductor wires of 650 Volts grade drawn in ISI marked heavy duty uPVC conduit pipe in recess or in surface of wall / ceiling / false ceiling with continuous run of 2.5 Sq.mm PVC insulated FRLS flexible green colour copper conductor for earthing the third pin of socket outlet including Industrial type box, (2P+E) plug and socket and SPMCB, connections etc. complete as required.				0.00	
231	Two outlets per circuit (Cost should be for 2 Nos. 16 A Weather Proof Sockets including circuit wiring)	Nos.	25		0.00	
232	Wiring for 20 A Weatherproof type plug & socket, Three phase outlets with 4 x 6.0 Sq. mm PVC insulated FRLS flexible copper conductor wires of 650 Volts grade drawn in ISI marked heavy duty uPVC conduit pipe in recess or in surface of wall / ceiling / false ceiling with continuous Two runs of 2.5 Sq.mm PVC insulated FRLS flexible green colour copper conductor for earthing the third pin of socket outlet including Weather Proof box, (3P+N+E) plug and socket and TPMCB, connections etc. complete as required.				0.00	
233	One outlet per circuit (Cost should be for 1 No. 20 A Weather Proof Socket including circuit wiring)	Sets	25		0.00	
234	Supply and erection of TV socket, Telephone socket and Networking socket points in powder coated/anodized concealed metal boxes recessed in wall required for suitable number of modules (Modular accessories) for having TV sockets, Telephone sockets RJ11 & Networking socket RJ45 (one module), covered with Frame Plate and other petty material etc., including the cost of above material, cutting and filling up of chases (with finishing the surface):- Wiring TV socket point (one module)	Each	100		0.00	
235	Same as above: Wiring Telephone socket point RJ11 (one module)	Each	60		0.00	
236	Same as above: Wiring Networking socket point RJ45 (one module)	Each	160		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
237	Supply & erection of G.I. pipe (A-Class) as per IS:1239 (Part-I) 2004 including sockets bends, inspection boxes, Steel hooks, GI saddle clamps and other petty materials etc., where necessary including painting as per PWD General Specifications:- Galvanized iron pipe 25mm dia. (A class) Flushed	Metre	210		0.00	
238	Supply & erection of G.I. pipe (A-Class) as per IS:1239 (Part-I) 2004 including sockets bends, inspection boxes, Steel hooks, GI saddle clamps and other petty materials etc., where necessary including painting as per PWD General Specifications:- Galvanized iron pipe 32mm dia. (A class) Flushed	Metre	200		0.00	
239	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- MCB Single Pole 6-32amp. (10kA, Curve-C)	Each	800		0.00	
240	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- MCB Single Pole 40amp. (10kA, Curve-C)	Each	90		0.00	
241	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- MCB Double Pole 6-32amp. (10kA, Curve-C)	Each	100		0.00	
242	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- MCB Double Pole 50-63amp. (10kA, Curve-C)	Each	30		0.00	
243	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- MCB Triple Pole 6-32amp. (10kA, Curve-C)	Each	60		0.00	
244	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- MCB Triple Pole 50, 63amp. (10kA, Curve-C)	Each	35		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
245	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- - MCB Four Pole 6-32amp. (10kA, Curve-C)	Each	30		0.00	
246	Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- - MCB Four Pole 50-63amp. (10kA, Curve-C)	Each	50		0.00	
247	Supply and erection of RCCB (Residual Current Circuit Breaker) for Earth leakage protection suitable for 240/415 volts 50 cycles AC supply with breaking capacity of 10kA as per IEC 61008-1 in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:- - RCCB Double Pole 16/25amp., Sensitivity 30 mA	Each	20		0.00	
248	Same as above: - RCCB Double Pole 32/40amp., Sensitivity 30 mA	Each	20		0.00	
249	Same as above: - RCCB Double Pole 63amp., Sensitivity 30 mA	Each	20		0.00	
250	Same as above: - RCCB Double Pole 16/25amp., Sensitivity 100 mA	Each	10		0.00	
251	Same as above: - RCCB Double Pole 32/40amp., Sensitivity 100 mA	Each	10		0.00	
252	Same as above: - RCCB Double Pole 63amp., Sensitivity 100 mA	Each	10		0.00	
253	Supply and erection of sheet metal Double Door Distribution Boards IP 43-1K09 metal door (dust protected) as per IS 8623-1&3, IEC 61439-1&3 suitable for flush mounting with fully insulated copper busbars, shrouded neutral bars, earth bars, cement spill protector, colorcoded interconnecting wire set, cable ties, blanking plates and circuit identifications label and of required no.of ways for mounting miniature circuit breakers/ RCBO's/ RCCB's in the distribution board (For SP&N distribution board with provision DP MCB's/ RCCB's/ RCBO's as incomer and SP MCB's as outgoing and for TP&N horizontal distribution board with provision TPN/ FP MCB's/ RCCB's/RCBO's as incomer and SP MCB's as outgoing) as per PWD General specifications including connections with suitable size of thimbles and bonding to existing earth etc:- - SP&N Double Door Distribution Board 4 way	Each	1		0.00	
254	Same as above: - SP&N Double Door Distribution Board 8 way	Each	6		0.00	
255	Same as above: - SP&N Double Door Distribution Board 12 way	Each	4		0.00	
256	Same as above: - SP&N Double Door Distribution Board 16 way	Each	6		0.00	
257	Same as above: - TP&N Horizontal Double Door Distribution Board 4 way each	Each	4		0.00	
258	Same as above: - TP&N Horizontal Double Door Distribution Board 6 way each	Each	4		0.00	
259	Same as above: - TP&N Horizontal Double Door Distribution Board 8 way each	Each	6		0.00	
260	Same as above: - TP&N Horizontal Double Door Distribution Board 12 way each	Each	6		0.00	
261	Same as above: - TP&N Vertical Double Door Distribution Board 4 way each	Each	4		0.00	
262	Same as above: - TP&N Vertical Double Door Distribution Board 8 way each	Each	2		0.00	
263	Same as above: - TP&N Vertical Double Door Distribution Board 12 way each	Each	6		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
264	Same as above: - AC Plug and Socket SP&N with provision of One Single Pole MCB 20amp.	Each	50		0.00	
265	Same as above: - AC Plug and Socket TP&N with provision of One Triple Pole MCB 20amp.	Each	50		0.00	
266	Same as above: - AC Plug and Socket TP&N with provision of One Triple Pole MCB 30/32amp.	Each	50		0.00	
267	Supply & erection of Heavy guage welded conduit pipe (ISI marked) as per IS:9537:Part-II for wiring purposes including bends, junction boxes, Steel hooks, GI saddle clamps and other petty materials etc., where necessary including painting as per PWD General Specifications:- HGW Conduit Pipe 25mm dia. (1.6mm thick) On Surface	Mtrs.	1600		0.00	
268	Supply & erection of PVC Conduit Pipes (ISI marked) as per IS9537:Part-III for wiring purposes including bends, junction boxes, Steel hooks, M.S. saddle clamps and other petty materials etc., as per General Specifications:- Heavy Gauge PVC Conduit Pipe 25mm dia.(Flushed)	Metre	1600		0.00	
269	Supply and erection of MS perforated cable tray (MS Sheet thickness 2mm) with DA gray paint on the existing surface with the help of MS angle iron support (to be painted with approved paint) of size 50mm x 50mm x 6mm thick to be fixed with fasteners/ nut & bolts etc.,complete in all respect as desired by the Engineer-in-charge and as per PWD General Specifications:- - Cable Tray Size 150mm x 50mm x 50mm (2mm thick)	Metre	350		0.00	
270	Same as above: - Cable Tray Size 300mm x 50mm x 50mm (2mm thick)	Metre	500		0.00	
271	Supply ,installation,testing & commissioning of Proximity Card Readers without HID	Nos	15		0.00	
272	Supply laying,testing & commissioning of 8C 14/38 SWG Shielded copper cable from controller to reader / panic bar	Mtrs.	150		0.00	
273	Supply ,laying,testing & commissioning of 2C 14/38 SWG Shielded copper cable	Mtrs.	1600		0.00	
274	Supply,installation,testing & commissioning of Bioclass Fingersean with Card Readers	Nos	10		0.00	
275	Supply,installation,testing & commissioning of IP based Proximity Cards	Nos	15		0.00	
276	Supply,installation,testing & commissioning of Double door Electro Magnetic Lock + Door Position Sensor of Suitable Capacity .	Nos.	15		0.00	
277	Supply ,installation,testing & commissioning of Single door Electro Magnetic Lock + Door Position Sensor of Suitable Capacity .	Nos.	15		0.00	
278	Supply ,installation,testing & commissioning of Magnetic contacts / Reed switches.	Nos.	15		0.00	
279	Supply ,installation,testing & commissioning of Buzzer	Nos.	15		0.00	
280	Supply ,installation,testing & commissioning of Breakglass units for Labs / Server Rooms.	Nos	1		0.00	
281	Supply ,installation,testing & commissioning of PC station consisting of computer with 21" LCD / TFT colour monitor, printer, modem, keyboard, mouse and operating software.	Nos	1		0.00	
282	Supply, installation, testing and commissioning of UL Listed 3 MP Dome Camera , ONVIF profile S & G ,UL , CE , FCC Certified , 1/2.8" CMOS sensor ,2.8mm to 12 mm motorized varifocal , Min Illumination :0.05 Lux @ (F1.2,AGC ON), 0 lux with IR ,120 dB WDR, Shutter Speed : 1/5-1/100,000 s, Video Compression : H.265 , H.264 ,frame rate 30 fps @ 3MP ,Edge analytics : line crossing , perimeter intrusion ,Face detection , cross counting , stationary object , Inbuilt IR LED , IR distance upto 30 mtrs ,IK 10 Vandal proof ,IP 66 , POE , specifications.	Each	34		0.00	
283	Supply, Installation, Testing and Commissioning of Full HD 55" LED Professional Display Panel with 350 nits brightness,3 HDMI ,USB,VGA.	Each	2		0.00	
284	Supply , Installation , Testing and commissioning of CAT 6 UTP cable 23 AWG solid copper conductors.	Metre	2000		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
285	Supply , Installation , Testing and commissioning of CAT 6 information outlet for CCTV	Each	34		0.00	
286	Supply , Installation , Testing and commissioning of CAT 6 jack panel	Each	2		0.00	
287	Supply, Installation, Testing and Commissioning of Workstation PC: Intel(R) Core(TM) i7-3770 Processor (8M Cache, up to 3.90 GHz); Memory: 4GB, NON-ECC, 1600MHZ; RAM: 4GB (1x4GB) Non-ECC DDR3 1600MHz SDRAM Memory; Keyboard: 12 function keys; Chassis: Tower/Workstation; DVD: 8X Slimline DVD+/-RW, Data Only; 20" TFT Monitor; Dual Graphics Card; Network interface card: Integrated Intel(R) 82579LM Gigabit Ethernet LAN 10/100/1000; Hard disk: 250GB, 7200 RPM 3.5" SATA 6Gb/s Hard Drive; Operating system: Windows 7 Professional 64 Bit.	Each	1		0.00	
288	Supply, installation, testing and commissioning of 19" rack 32 U floor mount rack with all standard accessories that include cable manager, fan, power bar with sockets etc. as per requirement	Each	1		0.00	
289	Supply, installation, testing and commissioning of 19" rack 9 U wall mount rack with all standard accessories that include cable manager, fan, power bar with sockets etc. as per requirement	Each	2		0.00	
290	Supply , Installation , Testing and commissioning of CAT6 patch cord 3 feet for rack side switch termination	Each	34		0.00	
291	Supply, installation, testing and commissioning of 16 watts ceiling/wall speaker complete with all accessories as per specification	Each	20		0.00	
292	Supply, installation, testing and commissioning of UL Listed 3 MP Bullet Camera , ONVIF profile S & G ,UL , CE , FCC Certified ,1/2.8" Progressive Scan CMOS ,2.8 mm to 12 mm motorized varifocal lens ,min illumination : 0.05 Lux @ (F1.2,AGC ON), 0 Lux with IR , Auto switch IR cut filter ,SD card support ,1 input / 1 output audio support ,Shutter Speed : 1/5-1/100,000 s , 120 dB WDR , Video Compression : H.265 ,H.264 , frame rate : 30fps @ 3MP ,Edge analytics : line crossing , perimeter intrusion ,Face detection , cross counting , stationary object , In built IR LED , IR Distance upto 40 meters , IP 66 , POE. as per technical specifications	Each	6		0.00	
293	Supply, installation, testing and commissioning of 3 MP PTZ Camera , ONVIF profile S , G and Q , UL,CE,FCC Certified , 30 X Optical Zoom , Focal length 4.3mm to 129 mm , 12 X digital zoom , Quad stream ,H.265 video compression support , frame rate 25 FPS @ 3MP , 50 FPS @ 2 MP ,2 streams simultanepusly at 1920 X 1080 p ,Shutter Speed : 1/1 ~ 1/10000 sec , 360° endless Pan , -20° ~ 200° tilt , Pan Manual Speed : 0.1° ~ 300°/s , Tilt Manual Speed :0.1° ~ 200°/s , 256 presets , 120 dB WDR ,Edge analytics : Abandoned Object, Intrusion Detection, Tampering, Wrong Direction, Loitering Detection, Object Counting, Stopped Vehicle, Object Removal , Inbuilt IR LED , IR Distance upto 150 mtrs , IP 66. with USB / Networked PTZ Keyboard	Each	35		0.00	
294	Supply , Installation , Testing and Commissioning of NVR Server for VMS , operating system : Embedded Linux / Windows 2012 R2 Server , with min camera support of 40 cameras , 16GB RAM or better , 8 x SATA HDD Slots with total max storage capacity of 48TB(8*6) with 30 days recording , Quad Gigabit Ethernet Interfaces , Dual redundant PSU	Each	5		0.00	
295	Supply, installation, testing and commissioning of Layer 3 managed switch with 24 ports (RJ-45) , as to support all cameras and having 20% spare ports complete with supply. The switch shall have 1 GB port to communicate with other switches including Passive components inbuilt 2 SFP ports including SFP modules, rack mountable, SMPS power supply & other accessories complete as per specifications and as required.	Each	1		0.00	
296	Supply, Installation, Testing & Commissioning of 24 Port POE+ Layer 2 Switch with 2 SFP Port	Each	4		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
297	Supply , Installation , Testing and Comissioning of Server for VMS , Dual Processor: 2 x Intel Xeon E5-2620 v4 2.1GHz or better , 16GB RAM , Cooling fans , 8 X SATA HDD Slots , Storage :48TB (8 x 6TB 7.2K RPM SATA Enterprise Grade 6Gbps 3.5in Hot-plug Hard Drive) ,Embedded Linux / Windows 2012 R2 Server ,Quad Gigabit Ethernet Interfaces , Hardware Raid Controller to support Raid 0,1,5,6 or more ,Preinstalled VMS. Licenses required to activate Camera Channels ,Dual Redundant PSU ,DVD+/-RW Drive ,Rack Mount.	Each	10		0.00	
298	Supply, Installation, Testing & Commissioning of 6TB HD	Each	8		0.00	
299	Supply, Installation , testing and commissioning of 12 V SMPS DC Power Supply Unit, highly regulated and spikes free terminal voltage and heavy sourcing current for regulated terminal voltage.	Each	2		0.00	
300	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 300sq.mm (3 ½ Core)	Metre	300		0.00	
301	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 240sq.mm (3 ½ Core)	Metre	350		0.00	
302	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 185sq.mm (3 ½ Core)	Metre	450		0.00	
303	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 150 sq.mm (3 ½ Core)	Metre	350		0.00	
304	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 120sq.mm (3 ½ Core)	Metre	350		0.00	
305	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 95sq.mm (3 ½ Core)	Metre	500		0.00	
306	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 70sq.mm (3 ½ Core)	Metre	350		0.00	
307	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 50sq.mm (3 ½ Core)	Metre	300		0.00	
308	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 35sq.mm (3 ½ Core)	Metre	300		0.00	
309	Aluminium conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 25sq.mm (3 ½ Core)	Metre	300		0.00	
310	Supply and erection of Double Walled Corrugated (DWC) HDPE pipe to be laid 1mtr. below ground level including excavation placing the pipe in position and back filling with excavated soil etc. of the required size:- - Double walled corrugated (DWC) HDPE pipe 160/136 mm (Outer/Inner Dia.)	Metre	200		0.00	
311	Supply and laying of Circular Aluminium conductor, conductor screened with extruded semiconducting compound, XLPE insulated, insulation screened with extruded semiconducting combination with copper tape (0.3KA for 1 sec) core laid up, FR PVC inner sheathed, galvanised steel strip armoured and overall FR PVC sheathed cable conforming to IS: 7098/II/85 working voltage 11 KV (E) grade to be laid 1.5 mtr below ground level including excavation, sand cushioning, covering with sand & bricks and back filling the trench etc. of the required size:- - HT Cable Overall size 240sq.mm (3Core)	Metre	100		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
312	S/E of Heat shrinkable cable end termination/ Straight through joint kit for 11 KVA /6.6 KV (E) XLPE Cables as approved & desired by Engineer in charge:- Heat Shrinkable End Termination for cable size 240-400 sq. mm, 3Core (Indoor Type)	Each	1		0.00	
313	Same as above: Heat Shrinkable End Termination for cable size 240-400 sq. mm, 3Core (Outdoor Type)	Each	1		0.00	
314	Supply, installation, testing & commissioning of maintenance free chemical earthing system sets comprises of UL listed copper bonded earthing steel rods of 17.2 mm dia, 3000mm long with 250 micron copper molecular bonding, KEMA certified and tested as per IEC EN 62561-2:2012 alongwith minimum 2 bags each 11.2mm of ground enhancement material (GEM) having resistivity less than 0.02 ΩM.	Each	4		0.00	
315	Supply and erection of PVC insulated PVC sheathed (3 core) round flexible wire with copper conductor (FR) cable (ISI marked) conform to IS:694/1990 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:- - Overall size 2.5sq.mm (50/0.25mm), 3Core	Metre	600		0.00	
316	Supply and erection of PVC insulated PVC sheathed (3 core) round flexible wire with copper conductor (FR) cable (ISI marked) conform to IS:694/1990 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:- - Overall size 4.0sq.mm (84/0.3mm), 3Core	Metre	500		0.00	
317	Supply ,installation,testing &commissioning 750 KVA ,Silent TYPE DG Sets as per the technical specification	Each	1		0.00	
318	Supplying,installation,testing & commissioning of 'B' Class MS Pipe exhaust piping / chimney up to top level made out of suitable dia M.S piping complete with bends, duly painted with primer and insulated with 50 mm thick layer of LRB rock wool having 100 kg / m density, white wool. Finishing of the insulation shall be with chicken wire mesh and 26 kg.Aluminium sheet cladding all around exhaust pipe provided with self tapping screws complete as required.	Metre	30		0.00	
319	Supply & Fixing of 75mm Thick Compressed Mineral Wool Insulation for DG Exhaust Pipe With 24 Gauge Aluminium Sheet Cladding etc as Required for The Under Mentioned Dia Pipe	Metre	30		0.00	
320	Supply ,installation,testing &commissioning of Stain less steel S Bellow for DG piping	Each	2		0.00	
321	Supply ,installation,testing &commissioning DMX Splitter cum Booster ,Input Power- 100 to 240 VAC, auto-ranging, 50/60 Hz.,Housing rugged alluminium, Operation Temperature -17°C ~ +55°C (0°F ~ 131°F) , 5/6 output ports with 3/5-pin terminal sockets , each port should be optically isolated , Protection Rating IP20 including connection complete as required.	Nos	3		0.00	
322	Supply installation and fixing Audio / Dimmer Rack - 19 " - 36 U Rack, 600 mm wide with Aluminum frame and 1000 mm depth, top bottom side panel and rear door of CRCA Sheet size 1 mm, front door with Aluminum section and acrylic/glass sheets, with minimum specifications as specified in the tender	Nos	1		0.00	
323	Supply installation testing and commissioning of Personal Computer with interfaces as per the technical specifications PC with flat screen 27" display screen complete with keyboard mouse etc. for Lighting with minimum specifications as specified in the tender.	Nos	1		0.00	
324	Supply installation testing and commissioning of DMX cable (single pair) having one 22AWG pair stranded (7x30) tinned copper conductors, Datalene (FHDPE) insulation, twisted pairs, overall Beldfoil shield (100% coverage) plus tinned copper braid, PVC jacket.Cable. Beldon make or equivalent.	Metre	1550		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
325	Supply ,installation,testing &commissioning DMX -512 Controller System with Standalone interfaces. Controller should deliver 2x 512 DMX channels, the controller should have the provision to ugrade its channels upto 1536 by updating 1 more DMX universe. the controller should have new Nicolaudie Stand Alone engine (NSA) offering some great possibilities (multizone, extended triggers, 16- bit channels management...). the controller should offer multiple possibilities to trigger your lighting scenes: time/date, input ports, TCP/UDP commands. The controller should have LS Cloud (Future: activation required) as an optional feature to manage your lighting controller from anywhere in the world, at anytime using internet connectivity. PC DMX IN triggers:Yes, Standalone DMX IN triggers: Only with 512 interfaces, External triggers: x8 dry contacts (5V) internal calendar: Yes, Backups of the internal clock: Yes, 3weeks without power, Memory card: Yes microSD card, 4GB max, Input power voltage: 8-15V DC with power adaopter,. via USB(USB power supply included), Trigger lighting scenes using calendar triggers and conditional rules with New Stand Alone engine, using contact ports, RS232 or over Ethernet. Stand Alone mode with 99 scenes across 5 zones. Buttons: Rotary switch for scene selection. iPhone/iPad/Android remote and programming apps. Temperature: 0 to +50 C°, DMX Compatibility: 8 and 16 bit DMX fixtures. System Compatibility: Windows XP, Vista, 7, 8, 8.1, 10, MAC OS X (10.6 and +), Linux.	Nos	1		0.00	
326	Supply ,installation,testing & commissioning of Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Mr long etc. with charcoal/ coke and salt as required.. (Body Earth)	Each	5		0.00	
327	Supply ,installation,testing & commissioning of Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 Mr long etc. with charcoal/ coke and salt as required.. (Neutral Earth)	Each	4		0.00	
328	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	1000		0.00	
329	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	Metre	1000		0.00	
330	Providing and fixing earth bus of 50 mm X 5 mm GI strip on surface for connections etc. as required.	Metre	200		0.00	
331	Providing and fixing earth bus of 75 mm X 5 mm GI strip on surface for connections etc. as required.	Metre	60		0.00	
332	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	Metre	30		0.00	
333	Supply ,installation,testing &commissioning of AC 230/250 Volts, 50 HZ - 1200mm Ceiling Fan With Standard Down Rod, Blades, 2 Nos. Caps etc. ISI Marked Complete as Required.	Nos	20		0.00	
334	Supply ,installation,testing &commissioning of AC 230/250 volts, 50 HZ - 300mm Exhaust Fans Including Providing Nuts, Bolts, Mounting Frame and Other Accessories etc. Complete	Nos	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
335	Supply ,installation,testing &commissioning of Addressable fire alarm Panel which consists of display board which will have 160 Character Display with Touch key pad, Mother board which will have ARM CORTEX M3 32 Bit Processor, Inbuilt RS-485 Networking Circuit for peer to peer networking, Inbuilt USB 2.0 Port for upload and download the Configuration tools, Two inbuilt programmable inputs, Two inbuilt NAC's, and Three Programmable Relays, and 4 Loop Card circuits. power Supply Board which will have SMPS fully protected board, which its operates on 120 to 220V AC ± 10% with 50/60 Hz, battery backup 24V DC with built-in charger. the panel have IP-50 rating Optional: for BMS integration thru MODBUS converter, Graphical Software, Software for TCP/IP Module, provision for GSM based Auto dialler.provision for printer thru compatible module, Approval UL Listed,	Nos	1		0.00	
336	Supply ,installation,testing &commissioning of Fault isolator Base / Module capable of monitoring shorted loop circuit and automatically restore communications when shorted conditions are corrected	Nos	14		0.00	
337	Supply ,installation,testing &commissioning of power supply unit operting on 120-220VAC,60/50HZ + 10%, Battery backup with built in charging and up to 7 Ah batteries.Output 30VDC@ 2A Max, shall provide the supplies to Beam detector/Conventional Sounders/Strobe,etc. Shall have LED indications for Power supply ON, battery Fail, Battery Charging etc.,IP -50,Dimension (350 W x 400 H x 100 D (mm),IP -50.	Nos	2		0.00	
338	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, three core 2.5 sqmm cable in the existing surface/ recessed steel conduit as required. 3 core 2.5 sq mm	Metre	1240		0.00	
339	Supply ,installation,testing &commissioning of Loop Card which will have 254 devices of both detectors and modules in a single line circuit on any combination, SLC should supports both Class A and Class B wiring.Shall have an LED indication for FIRE,Normal and Redundancy conditions Approval: UL Listed.	Nos	3		0.00	
340	Supply ,installation,testing &commissioning of Addressable Smoke detector with base with Binary coded address setting. Dual LED's for 360° visibility.Polarity Free, Sleek low-profile housing design. Regular 100mm base. IP Rating : IP - 42. Approval: UL Listed, Make: Ravel	Nos	180		0.00	
341	Supply ,installation,testing &commissioning of Addressable Multi detector with base with Binary coded address setting. Dual LED's for 360° visibility.Polarity Free, Sleek low-profile housing design. Regular 100mm base. IP Rating : IP - 42. Approval: UL Listed, Make: Ravel	Nos	2		0.00	
342	Supply ,installation,testing &commissioning of Manual Pull Station - Single Action/Dual action - with back box andBreak Glass Rod,shall be resettable by Align key to avoid unauthenticated restorations - Approval: UL Listed NOTE: Need to connect with Monitor Module (RE - 717 MM)	Nos	6		0.00	
343	Supply ,installation,testing &commissioning of Addressable Mini Monitor Module with back box of pull station for monitoring the field NO/NC devices.Shall have Binary Coding Setting Dip Switch,Shall have an LED indiation for normal and Activate mode.	Nos	25		0.00	
344	Supply ,installation,testing &commissioning of Conventional Sounder cum strobe with 24V DC, Audiable Sound 85 db @ 1 mtr range (16 V DC). It is used for Fire, Burglar & Emergency Alarm System, Low current consume @ 47 -73 mA Candela: flashing every second, 4 candela settings:15/30/75/110cd output and 2 different tone audiable sound. Make: Ravel - UL Listed.	Nos	8		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
345	Supply ,installation,testing &commissioningof Addressable Control Module for activating the Notification application devices. Shall have supervisory facility to supervise the auxillary power Supply as well as the Notification Appliance Circuits.. Shall have Binary Coding Setting dip switches,Shall have an LED indication for normal working and active Modes - Approval: UL Listed	Nos	30		0.00	
346	Supply ,installation,testing &commissioningof Addressable Relay Module with Non Supervised Dual potential free contacts.Shall have Binary Coded Dip Switch address settings,Shall have an LED indiaction for normal and active modes Approval: UL Listed.	Nos	17		0.00	
347	Supply ,installation,testing &commissioning of Addressable Monitor Module for monitoring the field NO/NC devices.Shall have Binary Coding Setting Dip Switch,Shall have an LED indiaction for normal and Active Modes - Approval: UL Listed, Make: Ravel.	Nos	28		0.00	
348	11 KV Indoor TYPE HT PANEL BOARD (One incomer) Design, manufacture , supply, installation, testing and commissioning of 11KV, VCB indoor type panel board fabricated out of 2mm sheet steel, dust tight, vermin proof, totally enclosed and fully interlocked, IP 5X protection, cubicle type, floor mounting, extensible on both sides, suitable for indoor operation at 11 KV, 3 phase, 50 Hz, AC supply complete with rack in - rack out mechanisms, switches, plugs &sockets and all required accessories, cable termination box at back with bottom cable entry for cable size upto 3 core 240 sqmm. armoured cable for each section, internal copper wiring, earth terminals, painting etc. as required , as per specifications enclosed with the following equipped switch gears and accessories.	set	2		0.00	
349	11 KV Indoor TYPE HT PANEL BOARD (Two incomer ,one bus section and two out goings) Design, manufacture , supply, installation, testing and commissioning of 11KV, VCB indoor type panel board fabricated out of 2mm sheet steel, dust tight, vermin proof, totally enclosed and fully interlocked, IP 5X protection, cubicle type, floor mounting, extensible on both sides, suitable for indoor operation at 11 KV, 3 phase, 50 Hz, AC supply complete with rack in - rack out mechanisms, switches, plugs &sockets and all required accessories, cable termination box at back with bottom cable entry for cable size upto 3 core 240 sqmm. armoured cable for each section, internal copper wiring, earth terminals, painting etc. as required , as per specifications enclosed with the following equipped switch gears and accessories.	Each	1		0.00	
350	Supply, Installation, Testing and Commissioning of 10 passenger (680 kgs), 4 stops, 4 openings all in same side, Centre Opening doors , 1 MPS, Machine Room less Gearless,All in Stainless Steel Hairline Finish, Car ,Car door and landing doors - All in Stainless Steel Hairline Finish , Additional car gate lock,Steel Wire Ropes, Full length COP with 7 segment display with Braille fixtures ,Dulpex operations,Car Size-1200(W)mm x1400(D) mmx2300(H) mm or equivalent.,Door Height - 2100 mm,Approx travel -30 metres as per entire satisfaction of the engineer-in-charge.All dimensions are in MM.	Nos.	2		0.00	
351	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 25 sq. mm (25mm)	Each	8		0.00	
352	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 300 sq. mm (62mm)	Each	30		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
353	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 35 sq. mm (28mm)	Each	6		0.00	
354	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 50 sq. mm (38mm)	Each	4		0.00	
355	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 70 sq. mm (45mm)	Each	6		0.00	
356	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 95 sq. mm (45mm)	Each	10		0.00	
357	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 120 sq. mm (45mm)	Each	4		0.00	
358	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 150 sq. mm (50mm)	Each	6		0.00	
359	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 185 sq. mm (57mm)	Each	4		0.00	
360	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 kV Grade as Required. 3½ X 240 sq. mm (62mm)	Each	16		0.00	
361	Supply , installation , testing and commissioning 100 A FP MCCB of 25 KA breaking Capacity in metal sheet enclosure with ON/OFF, RYB Indication lamps for Incoming of UPS Complete in All Respect as Required.	sets	3		0.00	
362	Supply ,installation,testing & commissioning of External Lighting Feeder Pillar outdoor type-2as per the SLD and technical specification as above Incomer :100A, 25KA 4pole MCCB -1set Busbars :150 A TPN Aluminium busbars - 1 set Outgoings : 63A 35KA TP+NL MCCBs –4no 32A 16KA TP+NL MCCBs – 3nos Timer,A/M switch etc as required	Each	1		0.00	
363	Supply ,installation,testing & commissioning of HVAC Plant Room Panel as per the SLD and technical specification as above Incomer 2000A, 50KA TP MDO ACB with O/C, S/C -1sets Busbars :2000A TPN Aluminium busbars - 1 set Outgoings : 1000A, 50KA TP MDO ACB with O/C, S/C-1set 800A 35KA TP+NL MCCBs –3 nos 630A 35KA TP+NL MCCBs –1 nos 100A 35KA TP+NL MCCBs –3 nos 63A 35KA TP+NL MCCBs –10 nos 100A 16KA TP+NL MCCBs with S/D starters 25 kw – 8 nos 63A 16KA TP+NL MCCBs with S/D starters 10 kw – 6 nos	Each	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
364	Supply ,installation,testing & commissioning of AHU Panel as per the SLD and technical specification as above Incomer 160A, 50KA 4pole MDO ACB with O/C, S/C -2sets Busbars :150A TPN Aluminium busbars - 1 set Outgoings : 63A 25KA TP+NL MCCBs -1nos MCCBs with DOL starters 3.7 kw – 4no MCCBs with DOL starters 1.1 kw – 4no MCCBs with DOL starters 1.5 kw – 3no MCCBs with DOL starters 2.2 kw – 3no	Each	2		0.00	
365	Supply ,installation,testing & commissioning of PressurisationPanel as per the SLD and technical specification as above Incomer 63A, TP MCCB - 1sets Busbars :100A TPN Aluminium busbars - 1 set Outgoings : 63A 25KA TP+NL MCCBs -1nos MCCBs with DOL starters 15.0 kw – 2nos MCCBs with DOL starters 11.0 kw – 1no	Each	1		0.00	
366	Supply ,installation,testing & commissioning of Ventilation Fan Panel as per the SLD and technical specification as above Incomer 63A, TP MCCB -1sets Busbars :100A TPN Aluminium busbars - 1 set Outgoings : 63A 25KA TP+NL MCCBs -1nos MCCBs with DOL starters 4.0 kw – 4nos	Each	1		0.00	
367	Supply, installation, Testing and Commissioning of 3 phase and Neutral 415V 4 wire Free Standing Floor mounted LT panel made out of 2mm thick CRCA/ Galvanised steel enclosure for main frame and 1.6mm thick partitions and the panel shall be got fabricated from manufacturers with CPRI Test certificate only, after seven tank process and painting with Epoxy powder coating. The panel shall consist of suitable rating TPN Aluminium busbar (at the rating of 0.8A/Sq.mm) supported with DMC/ SMC barriers and color coded with Heat shrinkable sleeves. The Metering shall be provided as specified. The panel shall have Short circuit withstanding capacity of minimum 50KA and consist of the switchgear as mentioned below. Indoor panels shall have IP-4X degree of protection and outdoor panels shall have IP-55 degree of protection wiith external door. Enclosure shall be modular with bolted design. Enclosure shall be powder coated with RAL-7035 coat with matt finish. Design ambient temperature shall be 50 degree centigrade. No use of hygroscopic material like FRP/ Hylam/ Bakelite sheet inside the panel for partitions or any other purpose. The PCC shall have at least two spare cubicles. The size of all Panel Mounting Meters shall be 96X96mm. The Panels shall be mounted on U channels including supply and fixing of the same. Every ACB shall be provided with ON/OFF /Trip Indication lamps of LED type. For all Electrically operated Breakers, Local Remote Selector switches shall be provided for controlling the Breakers remotely.ACB's shall have built-in All ACBs shall be provided with Digital type Ammeter of suitable range along with CTs. All ACBs shall be provided with ON/ OFF/ TRIP indication lamps and shunt trip coils. All MCCB/ACBs of rating 160A and above shall be with Micro processor releases All MCCBs below 160A shall be with adjustable thermal magnetic based releases. All MCCBs shall be with spreader links and rotary handle. All MCCBs shall be over load &	Each	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
368	<p>The microprocessor based release should have the following settings:</p> <ul style="list-style-type: none"> • Overload Settings: 0.4 to 1 times of Ir • Short Circuit Settings: 1.25 to 10 times of Ir. • Earth fault Settings: 0.2 to 1 times of In. • Neutral protection settings: 0 – 50% – 100%Ir. • Manually closing mechanism should be accommodated in a Moulded housing of robust and vermin-proof construction. • MCCB shall be provided with double insulation (insulation between front cover and internal power circuits to avoid any accidental contact with live current carrying path with the front cover open) • The tripping devices shall be ambient temperature compensated type. <p>The insulating case shall be made of high strength heat resistant and flame retardant thermosetting insulating material.</p> <p>Supply ,installation,testing &commissioning of Main LT Panel as per the SLD and technical specification Incoming :</p> <p>2000A, 50KA 4pole EDO ACB with O/C, S/C & ELR with CBCT -2sets 1250A, 50KA 4pole EDO ACB incomer for DG set -2sets. 2000A, 50KA 4pole EDO ACB with bus coupler -1sets. Busbars :2000A TPN Aluminium busbars - 1 set Outgoings :</p> <p>1250 Amp,50 KA,TP MDO ACB -2nos 1000 Amp,50 KA,TP MDO ACB -2nos 800 Amp,50 KA,TP MDO ACB -2nos 630A 35KA TP+NL MCCBs –4 nos 400A 35KA TP+NL MCCBs –3 nos 125A 16KA TP+NL MCCBs – 4nos 100A 16KA TP+NL MCCBs – 3nos 400A 16KA TP+NL MCCBs – 2nos</p>				0.00	
369	<p>Supply ,installation,testing &commissioning of Automatic Power Factor Correction Panel (Capacitor panel Panel) - 800 KVAR.Incomer :1 No. 1000 Amp,35 KA,TP MDO ACB complete with thermal magnetic release having over current, short circuit, protection.se indicating lamps.</p> <p>Automatic Power Factor Correction (APFC) Panel for 3 Phase, 415 V & 50 Hz system of capacity(3x50+5x20+2x15+2x10 KVAR in 12 steps.12sets of 250/125/63A TP MCCB with DOM 25 KA. TP Capacitor duty contactor as suitable for capacitor with 230 V A.C supply 1 No 8 step APFCR intelligent Digital Relay with binary operation without time delay.7sets of self illuminated Red-green push buttons.7 Nos. of TP shunt capacitor with D-tunned reactor as describe rating as above.1 No. Selector switch for auto-off-manual.On/off Indicating light Timer -1 No.Auxilliary Contactor-1 No.control wiring complete as required . Technical specification as above</p>	Each	2		0.00	
370	<p>Supply ,installation,testing &commissioning of UPS PANELfor3x80 KVA UPS (server) as per the SLD and technical specification as above</p> <p>Incoming :</p> <p>:800A, 50KA 4pole MDO ACB with O/C, S/C -2sets Busbars :1000A TPN Aluminium busbars - 1 set</p> <p>Outgoings :</p> <p>400A 35KA TP+NL MCCBs –4no 100A 16KA TP+NL MCCBs – 1nos</p>	Each	2		0.00	
371	<p>Supply ,installation,testing & commissioning of UPS panel as per the SLD and technical specification as above Incomer : 400A, 50KA 4pole MCCB</p> <p>Busbars :600A TPN Aluminium busbars - 1 set Outgoings :</p> <p>100A 16KA TP+NL MCCBs – 4nos 63A 16KA TP+NL MCCBs – 5nos</p>	Each	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
372	Supply ,installation,testing & commissioning of MDB-1 as per the SLD and technical specification as above Incomer :125A, 50KA 4pole MCCB - 1sets Busbars :125A TPN Aluminium busbars - 1 set Outgoings : 63A 16KA TP+NL MCCBs – 8nos	Each	1		0.00	
373	Supply ,installation,testing & commissioning of MDB-2 as per the SLD and technical specification as above Incomer :125A, 50KA 4pole MCCB - 1sets Busbars :125A TPN Aluminium busbars - 1 set Outgoings : 63A 16KA TP+NL MCCBs – 8nos	Each	1		0.00	
374	Supply ,installation,testing & commissioning of MDB-3 as per the SLD and technical specification as above Incomer :125A, 50KA 4pole MCCB - 1sets Busbars :125A TPN Aluminium busbars - 1 set Outgoings : 63A 16KA TP+NL MCCBs – 8nos	Each	1		0.00	
375	Supply ,installation,testing & commissioning of External Lighting Feedar Pillar outdoor type-1 as per the SLD and technical specification as above Incomer : 100A, 25KA 4pole MCCB -2sets Busbars :150 A TPN Aluminium busbars - 1 set Outgoings : 63A 35KA TP+NL MCCBs –4no 32A 16KA TP+NL MCCBs – 3nos 16A 16KA TP+NL MCCBs – 3nos Timer,A/M switch etc as required	Each	1		0.00	
376	Supplying of Following sizes 1100 volt grade XLPE insulated PVC sheathed aluminium conductor armoured cables as per specification in existing laid in ground including cost of digging upto required depth, 150 mm sand all around the cable, brick protection and back filling, clamped to wall with suitable clamps including saddles fixing bolts, Connection Testing and commissioning as Required. 3x6 sqmm	Metre	500		0.00	
377	Supplying of Following sizes 1100 volt grade XLPE insulated PVC sheathed aluminium conductor armoured cables as per specification in existing trenches/pipes, cable trays, ducts, clamped to wall with suitable clamps including, saddles fixing bolts, connecting testing and commissioning as Required. 2x6 sqmm	Metre	100		0.00	
378	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Upto 35 sq. mm	Metre	800		0.00	
379	COPPER conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 10 sq.mm (4 Core)	Metre	260		0.00	
380	COPPER conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 6 sq.mm (3 Core)	Metre	260		0.00	
381	COPPER conductor XLPE/ PVC insulated PVC sheathed armoured and served cable working voltage 1100volts grade 2.5 sq.mm (4 Core)	Metre	280		0.00	
382	Supply installation,testing & commissioning of Wall Mounted BRACKET light fitting suitable for 20 Watt LED Light with all accessories as required.	Nos	10		0.00	
383	Supply installation,testing & commissioning of direction Light fixture for dome area	Nos	30		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
384	<p>1. Supply installation, testing & commissioning of Color changing RGBW surface mounted Linear Wall Washer 36-45W Narrow/Medium/Wide/Elliptical beam luminaire suitable for outdoor applications of Facade Lighting, depending on design by the contractor and site requirement.</p> <p>2. Luminaires should be enabled with high power LEDs, should consist of anti-aging and anti-UV high optical efficiency temperature-resistant lenses, suitable for architectural lighting as per design requirement.</p> <p>3. The luminaire should have options for various beam angles i.e. from 8° to 80°, actual will depend on the design by the contractor and site requirement.</p> <p>4. Power consumption should be between 36W to 45W at steady state full intensity, Luminaire luminous flux range of 1320- 1460 Lm. Light fixture should be standard DMX512 protocol compatible, the DMX decoder function should be inbuilt and each light fixture should be individually addressable & should be able to operate with any standard DMX512 equipment.</p> <p>5. Color rendering index CRI ≥ 80 for white LEDs's and power factor of complete luminaire ≥ 0.90, at full intensity.</p> <p>6. Luminaire should be provided with suitable integral/separate non-integral power supply unit.</p> <p>7. Lumen maintenance of at least L70@50,000 burning hours at 25°C.</p> <p>8. The luminaire should have powder coating extruded aluminium alloy housing with minimum 3-4mm thick safety glass.</p> <p>9. Ingress Protection ≥ IP 66. Impact resistance level ≥ IK 07. Adequate heat sink with proper thermal management shall be provided.</p> <p>10. Operating Temperature : -10°C to +45°C. Operating Humidity : 10%.</p>	Nos	20		0.00	
385	<p>13. The LED Luminaires and external drivers if used should be BIS certified.</p> <p>14. The fixtures proposed must have passed LM 79 & LM-80, Reports from NABL laboratory will be submitted post the issuance of LOA to the successful bidder and before the supply of material.</p> <p>15. Make of LEDs - LEDs of CREE / LUMINOUS / OSRAM / SEOUL / SAMSUNG/LUMILED /NICHIA.</p>				0.00	

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386	Supply installation,testing & commissioning of Color changing RGBW surface mounted RGBW 450W Projector/Floodlight Luminaire Narrow/Medium beam Projector luminaire suitable for outdoor applications of Facade Lighting. Luminaires should be enabled with high power LEDs, should consists of highly efficient, UV and temperature-resistant optics with symmetric distribution. With glass cover, clear/powder coated. Luminaire luminous flux range 19350 Lm(±10%). The luminaire should have options for various beam angles: 8°/15°/25°/35°/60°/30°x50°. Power consumption should be 450W at steady state full intensity. Light fixture should be standard DMX512 protocol compatible, the DMX decoder function should be inbuilt and each light fixture should be individually addressable & should be able to operate with any standard DMX512 equipment. Power factor of the luminaire shall be more than 0.90. Luminaire should be provided with suitable integral/separate non-integral power supply unit. The lumen maintenance L70@ 25 °C of the LED shall not be less than 70% of the initial lumen after 50,000 burning hours. Ingress Protection should be IP 66 or higher. Housing should be made of pressure Die cast Aluminium with 3-4mm thick safety glass. Impact resistance level should be suitable to site condition minimum IK07. Adequate heat sink with proper thermal management shall be provided. Operating Temperature : -10°C to +45°C, Operating Humidity : 10%-90%, Housing to have adjustable base bracket for angle adjustment so that the light direction can be adjusted to illuminate desired structural elements. LEDs of CREE / LUMILED / OSRAM / SEOUL / SAMSUNG reputed make shall be used for the light fittings. Luminaire should be BIS approved.	Nos	10		0.00	
387	1. Supply installation,testing & commissioning of Color changing RGBW surface mounted RGBW 72-90W Projector/Floodlight LuminaireNarrow/Medium/Wide beam luminaire suitable for outdoor applications of Facade Lighting, depending on design by the contractor and site requirement. 2. Luminaires should be enabled with high power LEDs, should consists of anti-aging and anti-UV high optical efficiency temperatureresistant lenses, suitable for architectural lighting as per design requirement. 3. The luminaire should have options for various beam angles i.e. from 8° to 80°, actual will depend on the design by the contractor and site requirement. 4. Power consumption should be between 72W to 90W at steady state full intensity, Luminaire luminous flux range of 2800- 2950 Lm. Light fixture should be standard DMX512 protocol compatible, the DMX decoder function should be inbuilt and each light fixture should be individually addressable & should be able to operate with any standard DMX512 equipment. 5. Color rendering index CRI ≥ 80 for white LED's and power factor of complete luminaire ≥ 0.90, at full intensity. 6. Luminaire should be provided with suitable integral/separate non-integral power supply unit. 7. Lumen maintenance of at least L70@50,000 burning hours at 25°C. 8. The luminaire should have powder coating pressure die cast aluminium housing with minimum 3-4mm thick safety glass. 9.Ingress Protection ≥ IP 66. Impact resistance level ≥ IK 07. Adequate heat sink with proper thermal management shall be provided.	Nos	5		0.00	

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388	10. Operating Temperature : -10°C to +45°C, Operating Humidity : 10%-90%. THD should be less than 15%. 11. Housing to have adjustable base bracket for angle adjustment so that the light direction can be adjusted to illuminate desired structural elements. 12. Connectors if used should be IP67 male/female connectors for loop through wiring. 13. The LED Luminaires and external drivers drivers if used should be BIS certified. 14. The fixtures proposed must have passed LM 79 & LM-80, Reports from NABL laboratory will be submitted post the issuance of LOA to the successful bidder and before the supply of material. 15. Make of LEDs -LEDs of CREE / LUMINOUS / OSRAM / SEOUL / SAMSUNG/LUMILED/NICHIA				0.00	
389	Supply ,installation,testing &commissioning of Surface Mounted Energy Efficient, LED Luminaires 40 W LED DOWN LIGHT (Round) Sutaible for 220v Single Phase Supply complete with driver circuit including making connections etc.as required. (Technical Data - System power 15W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy≥94)	Nos	15		0.00	
390	Supply ,installation,testing &commissioning of 22.5W Coreline Slimdownlight G3_LSC - 840 neutral white - Power supply unit with SystemReady interface, InterAct ready - Safety class II - White RAL9016	Nos	548		0.00	
391	Supply ,installation,testing &commissioning of Surface Mounted Energy Efficient, LED Luminaires 15 WATT TRACK WITH 5 LIGHTS Sutaible for 220v Single Phase Supply complete with driver circuit including making connections etc.as required. (Technical Data - System power 18W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy≥90)	Nos	1		0.00	
392	Supply ,installation,testing &commissioning of Linear & Compact 10W Mirror Light with Decorative Grey Caps, Polycarbonate Body & Ribbed Opal Diffuser. (Technical Data - System power 10W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy ≥100)	Nos	15		0.00	
393	Supply ,installation,testing &commissioning of LED Luminaires BATTEN 40W LED Tube Light of Box Type prewired Indoor Luminaire with Energy Efficient Electronic Ballast, with End Caps Complete as Required. (Technical Data - System power 40W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy ≥95)	Nos	110		0.00	
394	Supply ,installation,testing &commissioning of LED Luminaires BATTEN 20W LED Tube Light of Box Type Prewired Indoor Luminaire with Energy Efficient Electronic Ballast, with End Caps Complete as Required.(Technical Data - System power 20W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy ≥100)	Nos	20		0.00	
395	Supply ,installation,testing &commissioning of Solar Day Tube Light with all Accessories as required	Nos	20		0.00	
396	Supply ,installation,testing & commissioning of 15WLED Aviation obstacle light luminaire having Pressure die-cast (ADC12) aluminum housing havie IP 65 ,surge suppressor, and LED driver compartment with LED fixed.	Nos	85		0.00	

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397	Supply installation,testing & commissioning of 80W Dali Dimmable highbay luminaire having Pressure die-cast (ADC12) aluminum housing and LED driver compartment with LED fixed on die-cast aluminum,heat sink for proper thermal management.Secondary lens should be provided on each LED. Luminaire should be prewired with accessories up to terminal lock.Eyebolt,should be provided for suspension mounting.LED Used shall be SMD type and fixture should have minimum efficacy at System level (Not Chip Level) \geq 130lumens/watt, Minimum system umens 10,400 lm \pm 10%. Life of fixture 50000hrs@L70% Lumen maintenance, CCT up to 5700K 355K, CRI \geq 70,PF \geq 0.90, THD<10%, Impact resistance IK rating of IK08 and Operating Temperature Range-5 deg C to +45deg C, IP65. Built in Surge Protection of 4KV and an operating Voltage Range of 140 to 270V AC,50Hz.LED Driver should be of Constant current driver to have built-in surge, open & short circuit protection..The fixture should comply with the parameters as per IS10322 and IEC60598, EMC / EMI compliance.	Nos	5		0.00	
398	Supply installation,testing & commissioning of Recessed Mounted LED Circular Dali Dimmable Downlighter having minimum 1200 Lumen \pm 10% but with maximum allowed wattage as 12W (\pm 10%). Made of aluminum die cast housing sink with high quality opal diffuser. The luminaire suitable for 1 phase, 240 V, 50 Hz, should have CRI > 80 and CCT of 5700K - to be confirmed before supply & SDCM<5..The luminaire shall be compliant with IP20 classification.The lumen depreciation of luminaire is 30% over 50k burning hours @ design ambient temp 45 deg C. The electronic driver used shall have a power factor >0.90 with THD <10%.Minimum Internal Surge Protection 2 KV. The fixture should comply with the parameters as per IS10322 and IEC60598, EMC / EMI compliance.	Nos	5		0.00	
399	Supply installation,testing & commissioning of 45W decorative Led Post Top having Die cast aluminium graphite grey powder coated finished housing & Polycarbonate Opal diffuser provided at LED area to minimize glare.The LEDs should be connected in series and parallel combination with better heat dissipation arrangement.LED Used shall be SMD type and fixture should have minimum efficacy at System level (Not Chip Level) \geq 75lumens/watt,Minimum system Lumens 3375 lm \pm 10%. CCT up to 5700K \pm 355K, CRI >80, PF >0.95,IP65. Luminaire should be wired with inbuilt driver having 4kV internal surge protection and 10 kV External surge protection. The operating Voltage Range should be of 140 to 280V AC,50Hz. The driver should be specially designed to have high voltage, open and short circuit protection.Luminaire mounting should be Suitable for 68mm OD pipe entry	Nos	2		0.00	
400	Supply installation,testing & commissioning of 9W LED BUSH LIGHT "SPYKZ" having Graphite grey powder coated integral aluminium housing.The Die-cast aluminium housing comprises Warm White (WW) COB LED and reflector.COB LED housing covered with die- cast aluminium ring with weatherproof gasket and toughened glass.LED Used shall be COB type CCT up to 3000K \pm 250K,IP65. Luminaire is wired with inbuilt driver with 5kV surge protection and an operating Voltage Range of 140 to 280V AC,PF>90,50Hz.Adjustable mounting bracket with spike should be provided for easy to focus the object.2 nos., \varnothing 8mm holes should also be provided on adjustable mounting bracket for surface mounting. LED driver should be constant current type.The fixture should comply with the parameters as per IS10322. Bajaj Cat. Ref.BGSBL 9W WW LED or Equivalent	Nos	5		0.00	

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401	Supply installation,testing & commissioning of 4W LED STEP LIGHT having white powder coated cast aluminium body.Low power White LEDs (WH) covered with heat resistant frosted glass fixed to the housing with frame protection grill.LED Used shall be COB type CCT up to 5700K ±300K,IP54. An operating Voltage Range of 140 to 280V AC,PF>90,50Hz. LED driver should be constant current type.The fixture should comply with the parameters as per IS10322. Bajaj Cat. Ref.RAZOR - BLSGV 4W LED WH or Equivalent	Nos	5		0.00	
402	Supply installation,testing & commissioning of 9W LED Bollard having PDC Heat sink on Top for better thermal management and Extruded aluminium body in grey powder coated. CCT up to 3000K±300K,IP66,IK 07 & CRI 80. An operating Voltage Range of 140 to 280V AC,PF>90,50Hz. LED driver should be constant current type.The fixture should comply with the parameters as per IS10322. Bajaj Cat. Ref.BGBOM 605 9W LED WW or Equivalent.	Nos	35		0.00	
403	Supply installation,testing & commissioningof 6m Platz Pole with 45W LED Luminaire with Die cast aluminium graphite grey powder coated finished housing .The LEDs should be connected in series and parallel combination with better heat dissipation arrangement.LED Used shall be SMD type and fixture should have minimum efficacy at System level (Not Chip Level)≥90lumens/watt,Minimum system Lumens 4050 lm ±10%. CCT up to 5700K ±500K, CRI >70, PF >0.95,IP65. Luminaire should be wired with inbuilt driver having 4kV internal surge protection and 10 kV External surge protection. The operating Voltage Range should be of 140 to 280V AC,50Hz. The driver should be specially designed to have high voltage, open and short circuit protection.Luminaire mounting should be The fixture should comply with the parameters as per IS10322, EMC / EMI compliance. Bajaj Cat. Ref.Platz SM SA 45W 57K LED 0.6m Al with 6m Pole or Equivalent	Nos	20		0.00	
404	Supply installation,testing & commissioning of Essential full glow 2x2 Panel 36w RC360B LED30S. High Uniformity & CRI>80, Efficiency 100 lm/W, Compact integral design, Multiple Lumen Packs & CCT Suiting Different Applications and Heights, Super Slim With Just 35mm Depth Inside Ceiling, Ambient Temperature 45°C, Surge 2.5 KV Internal, Operating Voltage 160-270V, THD <30%,Uv stabilised frame with uniformly diffused light due to high quality PC diffuser,easily serviceable ballast	Nos	135		0.00	
405	Supply, installation, testing & commisionig of complete wide range lightning protection system comprising of lightning arrester with early streamer or interceptor mounted on minimum 4/6 mtr. mast, vertical conductor shall be 70sqmm bare/insulated Cu. round conductor, lightning counter, kits, brackets, parallel pipe clamp, tap, saddles with all accessories complete in everyway. The selection of lightning arrestors should ensure level 1 protection. Last 2.4 mtr. above ground shall be covered in pipe. This item shall cover cost of 70sqmm insulated copper conductor from top of lightning streamer to earthing pit. This item should be complete in all aspects.	Nos	1		0.00	
406	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, Unarmored Telephone cable in the existing surface/ recessed steel/ PVC conduit as required. (2 pair)	Metre	1500		0.00	
407	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Metre	1500		0.00	
408	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.	Metre	1500		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
409	Supply, installation, testing and commissioning of Main Control panel with 6 Zones expandable , compliant to IEC 60849 Evacuation Standards, fully supervised and with digital pre-recorded messages, with Cat-6 connectivity complete with connections etc. complete as required.	No.	1		0.00	
410	Supply, drawing, testing & commissioning of 4 pair UL listed CAT-6 UTP cable of 24 SWG solid copper conductors etc. complete as required.	mtr	1500		0.00	
411	Supplying and drawing of 1 pair 24/20 (0.75 sq.mm), twisted, stranded annealed electrolytic copper conductor, colour coded, PVC sheathed and insulated FRLS wire, in 25mm recess / surface PVC conduits including connections etc. complete as required.	Nos.	200		0.00	
412	Supply, installation, testing & commissioning of 4" by 4" junction box etc. complete as required.	Nos.	10		0.00	
413	Supply, installation, testing and commissioning of Call Station for above Six Zones with mounting box etc. complete as required.	No.	1		0.00	
414	Supply, installation, testing and commissioning of Booster Amplifier 240 Watt complete with connections, connecting wires etc. complete as required.	No.	31		0.00	
415	Supply, installation, testing and commissioning of Booster Amplifier 120 Watt complete with connections, connecting wires etc. complete as required.	No.	1		0.00	
416	Supply, installation, testing and commissioning of False Ceiling Mounted High Quality Polycarbonate 6 Watt Ceiling Speaker with connections, connecting wires etc. complete as required with junction box complete in every way.	Nos.	10		0.00	
417	Supply, installation, testing and commissioning of Wall Mounted High Quality Polycarbonate 8 Watt mounted Speaker with connections, connecting wires etc. complete as required.	Nos.	10		0.00	
418	Supply, installation, testing and commissioning of 12 W Volume Control complete with mounting box, cover etc complete as required.	Nos.	6		0.00	
419	Supply, installation, testing and commissioning of All-in-one (Music Source DVD Player/ Tunner/MP3 Player) complete with connectors etc. as required.	No.	1		0.00	
420	Supply, installation, testing and commissioning of Equipment Rack of MS construction duly wired, provided with front and back lockable door, front door with acrylic sheet, back door with louvers, monitor speaker with volume control with provision for housing all amplifiers, controller, BGM source etc. complete as required.	No.	1		0.00	
421	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	2		0.00	
422	SITC of shock treatment chart (prescribed under I.E.rules) duly framed with glass and supported from back with hard board with supply of all material labour T & P etc for proper completion of work. (Approx front area = 1.20 sq M)	Each	1		0.00	
423	SITC of First aid box as approved by Indian red cross conforming to IS : 2217.	Each	1		0.00	
424	SITC of CO2 Fire Extinguishers 4.5 kg capacity complete in all respect ISI : 15683 marked	Each	3		0.00	
425	SITC of ABC Fire Extinduisher 4 kg capacity complete in all respect ISI : 15683 marked	Each	3		0.00	
426	SITC of of rubber gloves of 11 KV grade as per IS : 4770.	Sets	2		0.00	
427	SITC of cable route marker	Nos	30		0.00	
428	SITC of Anti Skid Rubber Mat 1 mtr x 2 mtr. (3mm thick) ISI - 15652 marked	Each	10		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
429	Supply ,installation,testing &commissioning of 1250 KVA dry type Transformer with OLTC , RTCC Panel etc as per the technical specification.	Each	2		0.00	
430	Supply, Installation, Testing and Commissioning of Single Module IGBT based PFC rectifier, IGBT based inverter 2X5 KVA UPS@30minutes backup System for Server On line UPS System with input voltage 415 V 50 Hz (Frequency Variation - 45 - 65 Hz), suitable for Input Voltage Variation - 304V AC to 477 V AC to give Three phase Output voltage – 380/400/415 VAC, (Output voltage regulation - +/- 1%) having Transformerless design as below Specifications : In-built provision for measuring and recording waveform is required. If this facility is not available in-built, then oscilloscope with aux power supply to be considered in BOQ by UPS vendor . Internal connection between UPS and oscilloscope, and oscilloscope to aux power supply to be done by UPS vendor. Conformal coating of critical PCBAs and User replaceable dust filters THD(i) shall be less than 4% at 100%. Load Shall have soft start and hold of for incoming supply. Fully rated Battery Circuit Breaker with Trip coil & deep discharge protection to the batteries. Shall not allow deep discharge of the battery and shall not go to 10.5 volts in case of 12 volt cells. It shall have RS 232 and RS 485 port with modbus connectivity for BMS interfacing and necessary protocols for LAN /WAN connectivity. All necessary software / mapping to be built in. "Supply, unloading, installation, testing & commissioning of open type MS racks to house SMF batteries for each 2x5 kVA UPS system along with suitable interconnecting links,flexible copper cables from UPS to UPS and UPS to batteries, circuit breaker having trip mechanics for Battery Banks etc. complete as required & as per specifications. Battery Banks comprising of Valve Regulated Lead Acid Sealed Maintenance Free batteries of minimum 5years design life to provide 30 minutes backup at full load at 0.8 PF and	sets	3		0.00	
431	Supply ,installation,testing &commissioning 3X80KVA UPS@15minutes backup System for Server as per technical specification System with input voltage 415 V 50 Hz (Frequency Variation - 45 - 65 Hz), suitable for Input Voltage Variation - 304V AC to 477 V AC to give Three phase Output voltage – 380/400/415 VAC, (Output voltage regulation - +/- 1%) having Transformerless design as below Specifications : In-built provision for measuring and recording waveform is required. If this facility is not available in-built, then oscilloscope with aux power supply to be considered in BOQ by UPS vendor . Internal connection between UPS and oscilloscope, and oscilloscope to aux power supply to be done by UPS vendor. Conformal coating of critical PCBAs and User replaceable dust filters THD(i) shall be less than 4% at 100%. Load Shall have soft start and hold of for incoming supply. Fully rated Battery Circuit Breaker with Trip coil & deep discharge protection to the batteries.	sets	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
432	Shall not allow deep discharge of the battery and shall not go to 10.5 volts in case of 12 volt cells. It shall have RS 232 and RS 485 port with modbus connectivity for BMS interfacing and necessary protocols for LAN /WAN connectivity. All necessary software / mapping to be built in. Supply, unloading, installation, testing & commissioning of open type MS racks to house SMF batteries for each 3x80 kVA UPS system along with suitable interconnecting links,flexible copper cables from UPS to UPS and UPS to batteries, circuit breaker having trip mechanics for Battery Banks etc. complete as required & as per specifications. Battery Banks comprising of Valve Regulated Lead Acid Sealed Maintenance Free batteries of minimum 5years design life to provide 30 minutes backup at full load at 0.8 PF and 1.75 ECV with each 20 kVA UPS. The batteries shall be installed on shelves of rack for quick replacement and servicing. The bank of batteries shall comprise of required numbers of batteries connected in series. Vendor to provide complete details of make of Batteries, ampere hour ratings, no. of Batteries, Expected life, Final discharge voltage, Nominal float voltage, Battery recharge time & configuration of back up time, Battery sizing Calculations				0.00	
433	Supply and fixing of 5.5 Meter long GI tubular pole light pole standard pole fabricated out of 80 mm (NB) dia. pipe 3.5 metre long and bottom dia of 150 mm 3.5 meter long complete with 450 mm x 450 mm x 10 mm thick GI plate welded at bottom including welding of 1 no. earth stud and drilling holes for drawing the wires, two coats of red oxide and one coat of Aluminum oxide paint including anti corrosion treatment on the portion below the ground etc. complete as required.	nos	18		0.00	
434	The Pole shall be erected on the foundation made of M-25 reinforced cement concrete foundation of size 500 mm. (L) x 500 mm. (W) x 1500 mm. (D) (below ground) and 450 mm. (L) x 450 mm. (W) x 200 mm. (D) (above ground) i/e. excavation of earth, providing cutting, bending and placing in position, reinforcement of cold twisted bars of 12 mm. dia - 1660 mm long (approx.) 8 nos. and reinforcement ring of cold twisted bar of 8 mm. dia - 1800 mm (approx.) 8 nos. (with 150 mm. spacing) as required with positioning of foundation bolts (as per item no. 1.1c) and providing 75 mm. (O.D.) DWC pipe for cable entry & exit complete as required.	nos	18		0.00	
435	SITC OF Pole Light of 60 Watt with LED lights	nos	18		0.00	
436	SITC OF floor Box of size 6 M for fixing in Floor below tables	nos	40		0.00	
437	SITC OF fan Box of Standard Size	nos	18		0.00	
438	Supplying, installtion, testing and commissioning of grid interactive roof top solar photo voltaic gneration system including the space frames etc. As per specifications	Each	1000		0.00	
439	Supplying, installtion, testing and commissioning of grid interactive synchronisation panel for solar power. As per specifications	No	1000		0.00	
				Sub Total of Part B:	0.00	
PART: C	MECHANICAL					

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
440	<p>AHU/CSU- TFA with HRW Supplying, installing, testing and commissioning of double skin construction draw thru type AIR HANDLING UNITS as per specification, each complete with following :- AHU shall be DOUBLE SKIN with 0.8mm thick inner/outer pre coated GSS skin with 50mm thick PUF insulated panel. Supply air centrifugal direct driven backward curved fan with efficiency >65%, Coil of copper tube and aluminum construction sized at maximum face velocity of 400 fpm. Squirrel cage induction motors suitable for 415 ± 10% volts, 50 Hz, AC supply & high efficiency, EFF-1 type. Fan belt drive package, Vibration isolators, Fan outlet velocity not exceeding 9 mps, Minimum 20 mm -25mm (WC) external static pressure after fan outlet. Total static pressure of AHU shall be checked by Vendor. All units shall be equipped with EU4 50mm thick pre-filter. Unit shall be belt or direct driven keeping minimum size of units. All air handling units to be provide with SS-304 end plates for coil. All air handling units to be provided with minimum 4 row deep primary coil & 8 Row deep secondary cooling coil meeting to BOQ specified CFM & TR. Air handling units to be provided with mixing box and thermal break profile as specified All cooling coil shall be with hydrophilic coating Fan outlet velocity not exceeding 9 mps. All TFA/AHU shall be accompany with two set of cooling coil (Primary cooling coil & secondary de-humidification coil) High temperature coil (Primary coil) should be suitable for hot water application also. Noise level of AHU shall be Around 65dB. - AHU/CSU-TFA 1: 1000CFM : 20mm ESP : 20TR primary coil: 25TR secondary coil</p>	No	7		0.00	
441	<p>AHU/CSU - TFA with HRW: Supplying, installing, testing and commissioning of double skin construction draw thru type AIR HANDLING UNITS as per specification, each complete with following :- AHU shall be DOUBLE SKIN with 0.8mm thick inner/outer pre coated GSS skin with 50mm thick PUF insulated panel. Supply air centrifugal direct driven backward curved fan with efficiency >65%, Coil of copper tube and aluminum construction sized at maximum face velocity of 400 fpm. Squirrel cage induction motors suitable for 415 ± 10% volts, 50 Hz, AC supply & high efficiency, EFF-1 type. Fan belt drive package, Vibration isolators, Fan outlet velocity not exceeding 9 mps, Minimum 20 mm -25mm (WC) external static pressure after fan outlet. Total static pressure of AHU shall be checked by Vendor. All units shall be equipped with EU4 50mm thick pre-filter. Unit shall be belt or direct driven keeping minimum size of units. All air handling units to be provide with SS-304 end plates for coil. All air handling units to be provided with minimum 4 row deep primary coil & 8 Row deep secondary cooling coil meeting to BOQ specified CFM & TR. Air handling units to be provided with mixing box and thermal break profile All cooling coil shall be with hydrophilic coating Fan outlet velocity not exceeding 9 mps. All TFA/AHU shall be accompany with two set of cooling coil (Primary cooling coil & secondary de-humidification coil) High temperature coil (Primary coil) should be suitable for hot water application also. Noise level of AHU shall be Around 65dB. - AHU/CSU-TFA 1: 4000CFM : 20mm ESP : 10TR primary coil: 15TR secondary coil</p>	No	4		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
442	<p>AHU / CSU- TFA with HRW :</p> <p>Supplying, installing, testing and commissioning of double skin construction draw thru type AIR HANDLING UNITS as per specification, each complete with following :-</p> <p>AHU shall be DOUBLE SKIN with 0.8mm thick inner/outer pre coated GSS skin with 50mm thick PUF insulated panel.</p> <p>Supply air centrifugal direct driven backward curved fan with efficiency >65%, Coil of copper tube and aluminum construction sized at maximum face velocity of 400 fpm. Squirrel cage induction motors suitable for 415 ± 10% volts, 50 Hz, AC supply & high efficiency, EFF-1 type. Fan belt drive package, Vibration isolators, Fan outlet velocity not exceeding 9 mps, Minimum 20 mm -25mm (WC) external static pressure after fan outlet. Total static pressure of AHU shall be checked by Vendor.</p> <p>All units shall be equipped with EU4 50mm thick pre-filter.</p> <p>Unit shall be belt or direct driven keeping minimum size of units. All air handling units to be provide with SS-304 end plates for coil.</p> <p>All air handling units to be provided with minimum 4 row deep primary coil & 8 Row deep secondary cooling coil meeting to BOQ specified CFM & TR.</p> <p>Air handling units to be provided with mixing box and thermal break profile All cooling coil shall be with hydrophilic coating</p> <p>Fan outlet velocity not exceeding 9 mps.</p> <p>All TFA/AHU shall be accompany with two set of cooling coil (Primary cooling coil & secondary de-humidification coil) High temperature coil (Primary coil) should be suitable for hot water application also.</p> <p>Noise level of AHU shall be Around 65dB. - AHU/CSU-TFA 1: 6000CFM : 20mm ESP : 15TR primary coil: 20TR secondary coil</p>	No	1		0.00	
443	<p>AHU / CSU- TFA with HRW :</p> <p>Supplying, installing, testing and commissioning of double skin construction draw thru type AIR HANDLING UNITS as per specification, each complete with following :-</p> <p>AHU shall be DOUBLE SKIN with 0.8mm thick inner/outer pre coated GSS skin with 50mm thick PUF insulated panel.</p> <p>Supply air centrifugal direct driven backward curved fan with efficiency >65%, Coil of copper tube and aluminum construction sized at maximum face velocity of 400 fpm. Squirrel cage induction motors suitable for 415 ± 10% volts, 50 Hz, AC supply & high efficiency, EFF-1 type. Fan belt drive package, Vibration isolators, Fan outlet velocity not exceeding 9 mps, Minimum 20 mm -25mm (WC) external static pressure after fan outlet. Total static pressure of AHU shall be checked by Vendor.</p> <p>All units shall be equipped with EU4 50mm thick pre-filter.</p> <p>Unit shall be belt or direct driven keeping minimum size of units. All air handling units to be provide with SS-304 end plates for coil.</p> <p>All air handling units to be provided with minimum 4 row deep primary coil & 8 Row deep secondary cooling coil meeting to BOQ specified CFM & TR.</p> <p>Air handling units to be provided with mixing box and thermal break profile All cooling coil shall be with hydrophilic coating</p> <p>Fan outlet velocity not exceeding 9 mps.</p> <p>All TFA/AHU shall be accompany with two set of cooling coil (Primary cooling coil & secondary de-humidification coil) High temperature coil (Primary coil) should be suitable for hot water application also.</p> <p>Noise level of AHU shall be Around 65dB. - AHU/CSU-TFA 1: 2000CFM : 20mm ESP : 8TR primary coil: 10TR secondary coil</p>	No	2		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
444	<p>AHU / CSU- TFA with HRW :</p> <p>Supplying, installing, testing and commissioning of double skin construction draw thru type AIR HANDLING UNITS as per specification, each complete with following :-</p> <p>AHU shall be DOUBLE SKIN with 0.8mm thick inner/outer pre coated GSS skin with 50mm thick PUF insulated panel.</p> <p>Supply air centrifugal direct driven backward curved fan with efficiency >65%, Coil of copper tube and aluminum construction sized at maximum face velocity of 400 fpm. Squirrel cage induction motors suitable for 415 ± 10% volts, 50 Hz, AC supply & high efficiency, EFF-1 type. Fan belt drive package, Vibration isolators, Fan outlet velocity not exceeding 9 mps, Minimum 20 mm -25mm (WC) external static pressure after fan outlet. Total static pressure of AHU shall be checked by Vendor.</p> <p>All units shall be equipped with EU4 50mm thick pre-filter.</p> <p>Unit shall be belt or direct driven keeping minimum size of units. All air handling units to be provide with SS-304 end plates for coil.</p> <p>All air handling units to be provided with minimum 4 row deep primary coil & 8 Row deep secondary cooling coil meeting to BOQ specified CFM & TR.</p> <p>Air handling units to be provided with mixing box and thermal break profile All cooling coil shall be with hydrophilic coating</p> <p>Fan outlet velocity not exceeding 9 mps.</p> <p>All TFA/AHU shall be accompany with two set of cooling coil (Primary cooling coil & secondary de-humidification coil) High temperature coil (Primary coil) should be suitable for hot water application also.</p> <p>Noise level of AHU shall be Around 65dB. - AHU-TFA 1: 1500CFM : 20mm ESP : 6TR primary coil: 8TR secondary coil</p>	No	4		0.00	
445	<p>AHU / CSU- TFA with HRW :</p> <p>Supplying, installing, testing and commissioning of double skin construction draw thru type AIR HANDLING UNITS as per specification, each complete with following :-</p> <p>AHU shall be DOUBLE SKIN with 0.8mm thick inner/outer pre coated GSS skin with 50mm thick PUF insulated panel.</p> <p>Supply air centrifugal direct driven backward curved fan with efficiency >65%, Coil of copper tube and aluminum construction sized at maximum face velocity of 400 fpm. Squirrel cage induction motors suitable for 415 ± 10% volts, 50 Hz, AC supply & high efficiency, EFF-1 type. Fan belt drive package, Vibration isolators, Fan outlet velocity not exceeding 9 mps, Minimum 20 mm -25mm (WC) external static pressure after fan outlet. Total static pressure of AHU shall be checked by Vendor.</p> <p>All units shall be equipped with EU4 50mm thick pre-filter.</p> <p>Unit shall be belt or direct driven keeping minimum size of units. All air handling units to be provide with SS-304 end plates for coil.</p> <p>All air handling units to be provided with minimum 4 row deep primary coil & 8 Row deep secondary cooling coil meeting to BOQ specified CFM & TR.</p> <p>Air handling units to be provided with mixing box and thermal break profile All cooling coil shall be with hydrophilic coating</p> <p>Fan outlet velocity not exceeding 9 mps.</p> <p>All TFA/AHU shall be accompany with two set of cooling coil (Primary cooling coil & secondary de-humidification coil) High temperature coil (Primary coil) should be suitable for hot water application also.</p> <p>Noise level of AHU shall be Around 65dB. - AHU-TFA 1: 5000CFM : 20mm ESP : 4TR primary coil: 5TR secondary coil</p>	No	8		0.00	
446	SITC of VFD for AHU/CSU/TFA - VFD	Nos	26		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
447	SITC of Room DDC controller/ Room controller	Nos	12		0.00	
448	SITC of Rectangular Inline fans for toilet Exhaust 1000 CFM @ 25mm static - In-line fans	No	8		0.00	
449	SITC of Rectangular Inline fans for Exhaust 3000CFM @ 35mm static - In-line fans	No	6		0.00	
450	SITC of Rectangular Inline fans for toilet Exhaust 250 CFM @ 25mm static - In-line fans	No	4		0.00	
451	SITC of Propeller fans for toilet Exhaust 100 CFM @ 25mm static	No	5		0.00	
452	SITC of Chilled water cassette with valve , accessories & cordless remote - 2TR - 600CFM	Nos	1		0.00	
453	SITC of Chilled water cassette with valve, accessories & cordless remote - 1.5TR - 500CFM	Nos	1		0.00	
454	SITC of Chilled water cassette with valve, accessories & cordless remote - 1TR - 300CFM	Nos	6		0.00	
455	SITC of Room De-humidifier to remove humidity Spcl. Note: the equipment shall be as per the technical specifications attached and before Dispatch from Factory One Machine shall be reqd. witness test in presence of Client/Arch./Consultant - De-humidifier	Nos	1		0.00	
456	SITC of Lift well presurisation fan with 40mm static pressure 25000CFM (final static to be checked by vendor) - Axial/SISW Fans	Nos	2		0.00	
457	SITC of Staircase presurization fan with 40mm static pressure -15000CFM (final static to be checked by vendor) - Axial/SISW Fans	Nos	2		0.00	
458	SITC of Lift lobby presurization fan with 40mm static pressure -5000CFM (final static to be checked by vendor) - Axial/SISW Fans	Nos	1		0.00	
459	Supply, installing, testing and commissioning of wall mounted AIR COOLED SPLIT AIR CONDITIONING UNITS as described in specifications. The unit shall be complete with cabinet type fan coil unit and external condensing unit, complete in all respects, in all respects, inclusive of copper refrigerant piping, inclusive of copper refrigerant piping, PVC condensate drain piping, valves and insulation quoted price shall include cost of stablizer, cooling thermostat, wiring, control cooling thermostat, wiring, control wiring , control wiring and earthing. Unit shall be with Eco-friendly CFC free refrigerent. The unit capacities shall be as follows : Split air conditioning units as described above for LMR - For Lift Machine Room Split Unit (2 TR)	No.	1		0.00	
460	Supply, installation, testing and commissioning of COOLING THERMOSTAT for various Air handling units/ TFA as described in specifications. The thermostat shall be proportionatory type for modulating 2 way valve with digital temperature indicator - Thetrmostat	Nos	20		0.00	
461	SITC of Air curtain for entry & exit	Nos	3		0.00	
462	SITC of UVGI for AHU/TFA: Air Purifier (UVGI System) - Up to 4000 CFM, 17 Watt - Upto 4000 CFM	Nos	24		0.00	
463	SITC of UVGI for AHU/TFA: Air Purifier (UVGI System) - Up to 8000 CFM, 36 Watt - Upto 8000 CFM	Nos	2		0.00	
464	SITC of BMS FOR HVAC SYSTEM for control of chiller/cooling tower/ahu/pumps/ radiant system/Valves etc. Scheme to be approved by Architect/Consultant - BMS for HVAC system	Lot	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
465	<p>Chiller- 2 Low/High Temperature Water Cooled Chiller (Working) With VFD, Cooling TR - 300TR @ Design Condition</p> <p>'Water cooled high efficiency semi hermetic Reciprocal/Screw Chiller 'Supply, Installation, Testing & Commissioning of AHRI Certified Water Cooled chillers comprising of high efficiency semi hermetic Reciprocal compressor with automatic capacity control and direct driven motor, insulated shell and tube type flooded cooler, Water cooled condenser with accessories. The chiller package shall also be complete with copper piping, factory charged R-134a refrigerant gas and system control wiring, Star delta starter, incoming suitable electrical isolator complete with accessories as required, automatic & safety controls including electronic thermostatic expansion valve. The chiller package shall be installed on a fabricated mild steel base frame factory assembled to form a compact assembly. Compressor motor shall be suitable for operation on 415V+/- 10%, 50 Hz, 3 phase.</p> <p>Chillers / heat pumps shall be with Harmonic filter Chiller & Condenser Design parameter below mentioned as: Evaporator Chiller Water IN 54°F/68°F Chilled Water OUT 44°F/62.6°F Fouling factor 0.0005 FPS 2 Pass Evaporator Flow Rate: 800USGPM Condenser Condenser Water IN 90°F Condenser Water OUT 100°F Fouling factor 0.001 FPS COP: Around 5 2 Pass Condenser Flow Rate: 1000USGPM Chiller 300TR</p>	Nos.	1		0.00	
466	<p>Chiller- 3 Inverter Driven Air to Water semi hermetic Reciprocal Type Reversible Heat Pump with VFD. Heat Pump shall be working on either of High / Low Temperature operating conditions in case of failure of any of HT / LT Chiller this chiller will work as stand- by. System is working on cooling mode during summer / monsoon condition and equipment shall be working on heating mode during winter season based on requirement.</p> <p>'Air to water type high efficiency reversible heat pumps 'Supply, Installation, Testing & Commissioning of AHRI Certified reversible heat pumps comprising of high efficiency semi hermetic Reciprocal compressor with automatic capacity control and direct driven motor, insulated shell and tube type flooded cooler, Water cooled condenser with accessories. The chiller package shall also be complete with copper piping, factory charged R-134a refrigerant gas and system control wiring, Star delta starter, incoming suitable electrical isolator complete with accessories as required, automatic & safety controls including electronic thermostatic expansion valve. The chiller package shall be installed on a fabricated mild steel base frame factory assembled to form a compact assembly. Compressor motor shall be suitable for operation on 415V+/- 10%, 50 Hz, 3 phase. Chillers / heat pumps shall be with Harmonic filter Chiller & Condenser Design parameter below mentioned as: Cooling Mode TR - 300TR : Heating Mode kW- 1224kW Option 1: During Cooling Mode Chiller Water IN 68°F Chilled Water OUT 62.6°F Fouling factor 0.0005 FPS Ambient DBT: 110 Deg F 2 Pass Evaporator Flow Rate: 800USGPM Option 2: During Cooling Mode Chiller Water IN 54°F Chilled Water OUT 44°F</p>	Nos.	1		0.00	
467	SITC of Chiller plant optimizer to control Chiller/HeatPump/Primary Pump/Condenser Pump/Cooling Tower - Chiller plant manager for chiller/heat pump/ pumps / cooling tower	Nos	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
468	SITC of Non combustible fibreglass tower having cross/ counter flow flow design, single/twin cell, basin, PVC louver, drift eliminator, low noise fan, ladder, vibration isolators, nozzles, TEFC squirrel cage type induction motor(IE3) with IP 55 protection and class F insulation as per specifications having the chiller capacity as below: Cooling tower for 300 TR Chillers capacity Flow rate per cooling tower: 1000USGPM Cooling tower in water temperature: 97F Cooling tower out water temperature: 87F Approach SdeeF - Cooling Tower	Nos	1		0.00	
469	SITC of VFD for Cooling Tower - Cooling Tower VFD	Nos	1		0.00	
470	SITC of Online type chemical dosing system. Automatic chemical dosing system to control the hardness and TDS of the condenser and chilled water circuits complete with valves and controls. The system shall maintain the quality of water as specified by the chiller manufacturers Manual dosing for the Chilled water system with Passivation as per schematic - Chemical Dosing	Set	1		0.00	
471	Basement fresh air axial fan with 6 pole motor , inlet/outlet cone, fittings etc. 25000CFM @ 35mm static Supply, Installation, Testing & Commissioning of long casing(GSS) Vane/ Axial flow type fans complete with aluminium alloy blades with aerofoil design, bird screen, flexible connection & gravity louvers at outlet. Motor shall be of 415 + 10% volts, 50 Hz. Sound level at 3mt distance from fan outlet shall not be more than 73-80 db(A) (Room Condition). Capacity shall be as follows & as per detailed technical specification: Fans should be AMCA certified. Manufacturer shall submit "Certificate of conformity for 250 deg for 2 hours operation as per EN12101-3: 2002 issued by Internationally recognized Independent Fire Laboratory should be submitted along with type test report. The Type test report should clearly indicate the make of motor used during the testing and the same make/model of motor should be supplied by the fan manufacture at the site." RPM Should Not exceed 1450. However lower cfm upto 5000 CFM can be provided at 2850 RPM. Outlet velocity shuld not exceed 13.5 m/s.	Nos	4		0.00	
472	Basement fire rated exhaust air axial fan with 6 pole motor , inlet/outlet cone, fittings etc. 25000CFM @ 35mm static Supply, Installation, Testing & Commissioning of long casing(GSS) Vane/ Axial flow type fans complete with aluminium alloy blades with aerofoil design, bird screen, flexible connection & gravity louvers at outlet. Motor shall be of 415 + 10% volts, 50 Hz. Sound level at 3mt distance from fan outlet shall not be more than 73-80 db(A) (Room Condition). Capacity shall be as follows & as per detailed technical specification: Fans should be AMCA certified. Manufacturer shall submit "Certificate of conformity for 250 deg for 2 hours operation as per EN12101-3: 2002 issued by Internationally recognized Independent Fire Laboratory should be submitted along with type test report. The Type test report should clearly indicate the make of motor used during the testing and the same make/model of motor should be supplied by the fan manufacture at the site." RPM Should Not exceed 1450. However lower cfm upto 5000 CFM can be provided at 2850 RPM. Outlet velocity shuld not exceed 13.5 m/s.	Nos	4		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
473	First floor smoke ventilation axial fan with 6 pole motor , inlet/outlet cone, fittings etc. 15000CFM @ 35mm static Supply, Installation, Testing & Commissioning of long casing(GSS) Vane/ Axial flow type fans complete with aluminium alloy blades with aerofoil design, bird screen, flexible connection & gravity louvers at outlet. Motor shall be of 415 + 10% volts, 50 Hz. Sound level at 3mt distance from fan outlet shall not be more than 73-80 db(A) (Room Condition). Capacity shall be as follows & as per detailed technical specification: Fans should be AMCA certified. Manufacturer shall submit "Certificate of conformity for 250 deg for 2 hours operation as per EN12101-3: 2002 issued by Internationally recognized Independent Fire Laboratory should be submitted along with type test report. The Type test report should clearly indicate the make of motor used during the testing and the same make/model of motor should be supplied by the fan manufacture at the site." RPM Should Not exceed 1450. However lower cfm upto 5000 CFM can be provided at 2850 RPM. Outlet velocity shuld not exceed 13.5 m/s.	Nos	2		0.00	
474	Ground Floor Smoke ventilation air axial fan with 6 pole motor , inlet/outlet cone, fittings etc. 15000CFM @ 35mm static Supply, Installation, Testing & Commissioning of long casing(GSS) Vane/ Axial flow type fans complete with aluminium alloy blades with aerofoil design, bird screen, flexible connection & gravity louvers at outlet. Motor shall be of 415 + 10% volts, 50 Hz. Sound level at 3mt distance from fan outlet shall not be more than 73-80 db(A) (Room Condition). Capacity shall be as follows & as per detailed technical specification: Fans should be AMCA certified. Manufacturer shall submit "Certificate of conformity for 250 deg for 2 hours operation as per EN12101-3: 2002 issued by Internationally recognized Independent Fire Laboratory should be submitted along with type test report. The Type test report should clearly indicate the make of motor used during the testing and the same make/model of motor should be supplied by the fan manufacture at the site." RPM Should Not exceed 1450. However lower cfm upto 5000 CFM can be provided at 2850 RPM. Outlet velocity shuld not exceed 13.5 m/s.	Nos	2		0.00	
475	HVAC Plant room ventilation axial fan 5000 cfm	Nos	2		0.00	
476	STP ventilation axial fan 5000 cfm	Nos	2		0.00	
477	SITC of Jet fans 315/355mm dia	Nos	5		0.00	
478	SITC of CO sensor	Nos	5		0.00	
479	SITC of VFD for axial fans	Nos	4		0.00	
480	SITC of Kitchen exhaust with 12000CFM scrubber Providing and fixing of kitchen dry scrubber based on ESP percipitator, epoxy coated steel sheet of 1.5mm nominal thickness complete with single skin fan section consist of centrifugal DIDW backward curve blower and TEFC 3phase squirrel cage induction motor with starter etc as required and drive. Dual voltage plate type electrostatic percipitator cell having solid state power supply with spike ionized blades for saturation efficiency ranging from 90%-95%. Complete with all supports, framing, endplates, ionizer ground electrodes in Aluminium repelling and collector plates etc as required.The quoted price shall include cost of wiring and cabling from electrical panel to unit with conduit/ cable tray etc. Optional Features:- a) Autowash module with wash manifold. (b) Activated carbon filter for odor control.	Nos	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
481	SITC of Kitchen exhaust with Air washer 10000CFM Supply, installation, testing and commissioning of Single skin Air washer unit with 200 mm thick impregnated cellulose paper media (Celdek pads) of imported Origin (Munter's make) of minimum 90% efficiency, factory assembled, distribution header, GI 'B' class piping, makeup, quickfill and drain connections, Butterfly/Gate valves for Pumps, make up, drain & quickfill connections of Sump, 2 Nos. pumps of suitable capacity (1W +1 S), Y strainers and necessary fittings etc.. The quoted price shall also include GI frame and supporting structure for Celdek pads, washable synthetic fibre filters (of 90% efficiency down to 10 micron) and SS(16 gauge) sump,TEFC Motor (IP:55) Control panel complete with necessary Switchgear, Starters, metering, power and control wiring between Control panel and Motor/Pump etc. & drive unit complete with Pulley, Belts, Fresh air Louvers with bird screen (GI Construction) etc.as per specification	Nos	1		0.00	
482	SITC 24 G Ducting for kitchen exhaust	Sqmt	200		0.00	
483	SITC of Makeup water for cooling tower with tank & accessories as per schematic. - Make up water	Set	1		0.00	
484	SITC CNC machine fabricated sheet metal ducting as per SMACNA standards. Supply , fabrication, erection and commissioning of Factory fabricated rectangular ducts box type as per SMACNA class VIII of approved makes using GI Sheets. The price shall include TDC / TDF flanges, turning vanes, supports (factory fabricated, full threaded rod & GI slotted channel), sealant (neoprene gasket), hangers, access door etc. Only flanged joints are acceptable. All transverse joints shall be sealed with silicon sealant. Price should also include duct pressure test which has to be carried out for 20 % of total duct qty. - 24G	Sqmt	1500		0.00	
485	SITC CNC machine fabricated sheet metal ducting as per SMACNA standards. Supply , fabrication, erection and commissioning of Factory fabricated rectangular ducts box type as per SMACNA class VIII of approved makes using GI Sheets. The price shall include TDC / TDF flanges, turning vanes, supports (factory fabricated, full threaded rod & GI slotted channel), sealant (neoprene gasket), hangers, access door etc. Only flanged joints are acceptable. All transverse joints shall be sealed with silicon sealant. Price should also include duct pressure test which has to be carried out for 20 % of total duct qty. - 22G	Sqmt	1000		0.00	
486	SITC CNC machine fabricated sheet metal ducting as per SMACNA standards. Supply , fabrication, erection and commissioning of Factory fabricated rectangular ducts box type as per SMACNA class VIII of approved makes using GI Sheets. The price shall include TDC / TDF flanges, turning vanes, supports (factory fabricated, full threaded rod & GI slotted channel), sealant (neoprene gasket), hangers, access door etc. Only flanged joints are acceptable. All transverse joints shall be sealed with silicon sealant. Price should also include duct pressure test which has to be carried out for 20 % of total duct qty. - 20G	Sqmt	800		0.00	
487	SITC CNC machine fabricated sheet metal ducting as per SMACNA standards. Supply , fabrication, erection and commissioning of Factory fabricated rectangular ducts box type as per SMACNA class VIII of approved makes using GI Sheets. The price shall include TDC / TDF flanges, turning vanes, supports (factory fabricated, full threaded rod & GI slotted channel), sealant (neoprene gasket), hangers, access door etc. Only flanged joints are acceptable. All transverse joints shall be sealed with silicon sealant. Price should also include duct pressure test which has to be carried out for 20 % of total duct qty. - 18G	Sqmt	500		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
488	Supply, fabrication, erection and commissioning of GI flat Oval ducts. Duct shall be internally factory thermal insulated with 13mm thick nitrile rubber insulation. Adhesive shall be low VOC as per green building requirements. The price shall include associated coupling, bends, transformation pieces, collars, turning vanes(if any), ' Hitech OR equivalent supports/hanging system. Measurement shall be based on surface area of duct. bolts, GI bolts & nuts, etc.,and as required by the specifications.These ducts would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting(colour as approved by architect/client/consultant) All the duct joints shall be sealed with silicon sealant. The joints shall be with least leak and shall be tested with light test - 26 G - GSS	Sqm	10		0.00	
489	Supply, fabrication, erection and commissioning of GI flat Oval ducts. Duct shall be internally factory thermal insulated with 13mm thick nitrile rubber insulation. Adhesive shall be low VOC as per green building requirements. The price shall include associated coupling, bends, transformation pieces, collars, turning vanes(if any), ' Hitech OR equivalent supports/hanging system. Measurement shall be based on surface area of duct. bolts, GI bolts & nuts, etc.,and as required by the specifications.These ducts would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting(colour as approved by architect/client/consultant) All the duct joints shall be sealed with silicon sealant. The joints shall be with least leak and shall be tested with light test - 24 G - GSS	Sqm	10		0.00	
490	Supply, fabrication, erection and commissioning of GI flat Oval ducts. Duct shall be internally factory thermal insulated with 13mm thick nitrile rubber insulation. Adhesive shall be low VOC as per green building requirements. The price shall include associated coupling, bends, transformation pieces, collars, turning vanes(if any), ' Hitech OR equivalent supports/hanging system. Measurement shall be based on surface area of duct. bolts, GI bolts & nuts, etc.,and as required by the specifications.These ducts would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting(colour as approved by architect/client/consultant) All the duct joints shall be sealed with silicon sealant. The joints shall be with least leak and shall be tested with light test - 22 G - GSS	Sqm	10		0.00	
491	Supply, fabrication, installation and testing the flexible connections constructed of fire resistance flexible double canvas sleeve as per the approved shop drawings. - Duct Flexible connections for ducting	Sqmt	50		0.00	
492	Supply, installation and testing of galvanised steel construction Louver dampers within ducts to be provided with suitable ducts lever and quadrants for manual control of volume of air flow and for proper balancing of the air distribution system. - Louver Damper	Sqmt	20		0.00	
493	Supply, installation, testing and commissioning of fusible link type fire damper as per UL555 complete at locations shown in approved shop drawings and as per specifications. Fire Dampers. - Fire Damper	Sqmt	20		0.00	
494	SITC of Fusible links for fire dampers - Fusible link	Nos	50		0.00	
495	SITC of Actuator for fire dampers with control panel - Upto 1Sqmt	Nos	15		0.00	
496	Supply, installation, testing and balancing of powder coated Extruded Aluminium supply air Grilles with collar dampers with anti smudge rings in accordance with the approved shop drawings and specifications. Grille shall be with 5mm thickness with adjustable louvers - Grilles	Sqmt	35		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
497	Supply, installation, testing and balancing of powder coated extruded aluminium Air Grilles without without collar dampers with adjustable double louvers. - Grilles	Sqmt	35		0.00	
498	SITC of Supply air diffuser with plenum box, collar damper, spigot connection etc. Diffuser shall be suitable for Armstrong ceiling. The sample shall be approved by consultants / architects / clients before procurement. - 450 X 450	Nos	10		0.00	
499	SITC of Supply air diffuser with plenum box, collar damper, spigot connection etc. Diffuser shall be suitable for Armstrong ceiling. The sample shall be approved by consultants / architects / clients before procurement. - 375 X 375	Nos	10		0.00	
500	Site of Supply air diffuser with plenum box, collar damper, spigot connection etc. Diffuser shall be suitable for Armstrong ceiling. The sample shall be approved by consultants / architects / clients before procurement. - 300X300	Nos	10		0.00	
501	SITC of Return air diffusers of powder coated Aluminium of the following neck sizes of tegular type. The sample shall be approved by consultants / architects / clients before procurement. - 450 X 450	Nos	10		0.00	
502	SITC of Return air diffusers of powder coated Aluminium of the following neck sizes of tegular type. The sample shall be approved by consultants / architects / clients before procurement. - 375 X 375	Nos	10		0.00	
503	SITC of Return air diffusers of powder coated Aluminium of the following neck sizes of tegular type. The sample shall be approved by consultants / architects / clients before procurement. - 300X300	Nos	10		0.00	
504	SITC of GI butterfly damper with Brass bush and operating handle. The damper shall have multiple controlling option and should provision to lock at any position. - 300mm dia	Nos	10		0.00	
505	SITC of GI butterfly damper with Brass bush and operating handle. The damper shall have multiple controlling option and should provision to lock at any position. - 250mm dia	Nos	2		0.00	
506	SITC of GI butterfly damper with Brass bush and operating handle. The damper shall have multiple controlling option and should provision to lock at any position. - 200mm dia	Nos	2		0.00	
507	SITC of GI butterfly damper with Brass bush and operating handle. The damper shall have multiple controlling option and should provision to lock at any position. - 150mm dia	Nos	10		0.00	
508	Supply, Installation, Testing and Balancing of Linear Grilles with removable core as per approved drawings and specifications. - Linear grilles of Aluminium	Sqmt	50		0.00	
509	Supplying & fixing of Aerofoil type Aluminium VCD (volume control dampers) in supply air duct as per approved drawings and specifications. Damper. - VCD	Sqmt	50		0.00	
510	Supplying & fixing of VCD (volume control dampers) in supply air duct as per approved drawings and specifications. Damper. - VCD	Sqmt	2		0.00	
511	Supply, installation, testing and balancing of inlet air louvers with bird screen and volume damper for fresh air as per specifications and approved shop drawings. - Fresh Air louvers with bird screen and damper if required	Sqmt	20		0.00	
512	SITC of Toilet exhaust disc valve - 250mm dia	Nos	20		0.00	
513	SITC of Toilet exhaust disc valve - 200mm dia	Nos	20		0.00	
514	SITC of Toilet exhaust disc valve - 150mm dia	Nos	10		0.00	
515	SITC of CIRCULAR pre-insulated fire retardant spiral flexible duct made of aluminium foil insulated using fibre glass. - 300mm dia	Rmt	10		0.00	
516	SITC of CIRCULAR pre-insulated fire retardant spiral flexible duct made of aluminium foil insulated using fibre glass. - 250mm dia	Rmt	40		0.00	
517	SITC of CIRCULAR pre-insulated fire retardant spiral flexible duct made of aluminium foil insulated using fibre glass. - 200mm dia	Rmt	40		0.00	
518	SITC of CIRCULAR pre-insulated fire retardant spiral flexible duct made of aluminium foil insulated using fibre glass. - 150mm dia	Rmt	20		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
519	SITC of CIRCULAR pre-insulated fire retardant spiral flexible duct made of aluminium foil insulated using fibre glass. - 100mm dia	Rmt	10		0.00	
520	Double Skin Plenum for AHU: SITC of double skin plenum in the air handling unit room. The plenum shall have 0.6mm thick GI inner skin and 0.8mm thick preplasticised outer skin with minimum 45/25mm thick PUF sandwich insulation. Necessary cutouts with flanges shall be made at the factory itself for the AHU inlet, duct outlets. The insulation shall be fixed with adhesive and held in place mechanically also. Please refer drawing for tentative sizes. - Double skin plenum	Sqmt	50		0.00	
521	SITC of Al. non vision louvers for doors - Non- vision louvers	Sqmt	20		0.00	
522	Supply and installation of external thermal insulation with protective coating for exposed ducting. Thermal insulation of ducting with 19/25 mm thick, 40-60 Kg / M3 density, class 'O' rated nitrile rubber ,stuck to the cleaned internal duct surface with synthetic rubber low VOC content adhesive of Pidlite industries or equivalent and to be used for insulation of ducting. - Nitrile rubber insulation with Al. foil faced	Sqmt	50		0.00	
523	Supply and installation of external thermal insulation with protective coating for exposed ducting. Thermal insulation of ducting with 19/25 mm thick, 40-60 Kg / M3 density, class 'O' rated nitrile rubber ,stuck to the cleaned internal duct surface with synthetic rubber low VOC content adhesive of Pidlite industries or equivalent and to be used for insulation of ducting. - Nitrile rubber thermal insulation	Sqmt	4000		0.00	
524	Supply and installation of external thermal insulation with protective coating for exposed ducting. Thermal insulation of ducting with 19/25 mm thick, 40-60 Kg / M3 density, class 'O' rated nitrile rubber ,stuck to the cleaned internal duct surface with synthetic rubber low VOC content adhesive of Pidlite industries or equivalent and to be used for insulation of ducting. - 25mm thick Nitrile rubber insulation with Al. foil faced	Sqmt	100		0.00	
525	Supply and installation of external thermal insulation with protective coating for exposed ducting. Thermal insulation of ducting with 19/25 mm thick, 40-60 Kg / M3 density, class 'O' rated nitrile rubber ,stuck to the cleaned internal duct surface with synthetic rubber low VOC content adhesive of Pidlite industries or equivalent and to be used for insulation of ducting. - 13mm thick Nitrile rubber insulation with FRP laminated.	Sqmt	50		0.00	
526	Supply and installation of external thermal insulation with protective coating for exposed ducting. Thermal insulation of ducting with 19/25 mm thick, 40-60 Kg / M3 density, class 'O' rated nitrile rubber ,stuck to the cleaned internal duct surface with synthetic rubber low VOC content adhesive of Pidlite industries or equivalent and to be used for insulation of ducting. - 25 mm thick nitrile rubber insulation for supply duct with protective coating for exposed ducts	Sqmt	50		0.00	
527	SITC of Accoustic Insulation of ducting with 15mm thick open cell nitrile rubber insulation of class-1 accoustic 140-180 Kg / M3 density stuck to the clean internal surface of the duct with good quality low VOC content adhesive of Pidlite industries or equivalent. Accoustic insulation to be used 5meter from outlet of units - 15mm thick Open cell insulation	Sqmt	500		0.00	
528	SITC of Accoustic Insulation of ducting with 15mm thick open cell nitrile rubber insulation of class-1 accoustic 140-180 Kg / M3 density stuck to the clean internal surface of the duct with good quality low VOC content adhesive of Pidlite industries or equivalent. Accoustic insulation to be used 5meter from outlet of units - 400mm dia chilled water pipe-32mm thick insulation	Rmt	50		0.00	
529	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 350mm dia chilled water pipe-25mm thick insulation	Rmt	100		0.00	

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530	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 300mm dia chilled water pipe-25mm thick insulation	Rmt	250		0.00	
531	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 250mm dia chilled water pipe-25mm thick insulation	Rmt	450		0.00	
532	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 200mm dia chilled water pipe-25mm thick insulation	Rmt	700		0.00	
533	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 150mm dia chilled water pipe-25mm thick insulation	Rmt	600		0.00	
534	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 125mm dia chilled water pipe-25mm thick insulation	Rmt	400		0.00	
535	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 100mm dia chilled water pipe-25mm thick insulation	Rmt	300		0.00	
536	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 80mm dia chilled water pipe-19mm thick insulation	Rmt	200		0.00	
537	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 65mm dia chilled water pipe-19mm thick insulation	Rmt	300		0.00	
538	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 50mm dia chilled water pipe-19mm thick insulation	Rmt	200		0.00	
539	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 40mm dia chilled water pipe-19mm thick insulation	Rmt	200		0.00	
540	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 32mm dia chilled water pipe-19mm thick insulation	Rmt	300		0.00	
541	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 25mm dia chilled water pipe-19mm thick insulation	Rmt	300		0.00	
542	Supplying, installing and testing of 25 mm thick Nitrile sleeve class -O insulation with FRP on chilled water and condensate drain piping and fitting like valves, flanges union, etc. - 20mm dia chilled water pipe-9mm thick insulation	Rmt	50		0.00	
543	SITC of Chilled water pipe insulation using 36kg/m ³ density PUF expanded polystyrene insulation of thickness 50mm for pipe below 400mm dia & 75 mm for pipes above 400mm dia with wire mesh and cement plaster, supports etc for pipes. - 400mm dia chilled water pipe-50mm thick insulation	Rmt	1		0.00	

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544	SITC of Chilled water pipe insulation using 36kg/m3 density PUF expanded polystyrene insulation of thickness 50mm for pipe below 400mm dia & 75 mm for pipes above 400mm dia with wire mesh and cement plaster, supports etc for pipes. - 350mm dia chilled water pipe-50mm thick insulation	Rmt	1		0.00	
545	SITC of Chilled water pipe insulation using 36kg/m3 density PUF expanded polystyrene insulation of thickness 50mm for pipe below 400mm dia & 75 mm for pipes above 400mm dia with wire mesh and cement plaster, supports etc for pipes. - 300mm dia chilled water pipe-50mm thick insulation	Rmt	200		0.00	
546	SITC of Chilled water pipe insulation using 36kg/m3 density PUF expanded polystyrene insulation of thickness 50mm for pipe below 400mm dia & 75 mm for pipes above 400mm dia with wire mesh and cement plaster, supports etc for pipes. - 250mm dia chilled water pipe-50mm thick insulation	Rmt	200		0.00	
547	SITC of Chilled water pipe insulation using 36kg/m3 density PUF expanded polystyrene insulation of thickness 50mm for pipe below 400mm dia & 75 mm for pipes above 400mm dia with wire mesh and cement plaster, supports etc for pipes. - 200mm dia chilled water pipe-50mm thick insulation	Rmt	200		0.00	
548	SITC of Chilled water pipe insulation using 36kg/m3 density PUF expanded polystyrene insulation of thickness 50mm for pipe below 400mm dia & 75 mm for pipes above 400mm dia with wire mesh and cement plaster, supports etc for pipes. - 150mm dia chilled water pipe-50mm thick insulation	Rmt	200		0.00	
549	Supply and installation of acoustic lining of walls and ceilings of AC plant room/AHU room covered with open cell nitrile rubber insulation of 140-180kg/m3 density having thickness of 25mm and 24G perforated aluminium sheet with GI frame works as per the approved shop drawings & specifications. Open cell nitrile rubber insulation of 25 mm thick acoustic lining having density of 140- 180kg/m3 with anti-microbial. - 25mm thick Open cell insulation	Sqmt	500		0.00	
550	Supply and installation of acoustic lining of walls and ceilings of AC plant room/AHU room covered with open cell nitrile rubber insulation of having thickness of 25mm as per the approved shop drawings & specifications. - 25mm thick Open cell insulation	Sqmt	1		0.00	
551	SITC of Pumps shall be base mounted, single stage, vertical in-line/split casing pumps, design with a foot mounted volute to allow removal and service of the entire rotating assembly without disturbing the pump piping, electrical motor connections or pump to motor alignment. Efficiency of pumps shall be around 80%. Single stage centrifugal coupled type pumpset with axial suction port and radial discharge port, bronze impeller, mechanical seal, three phase TEFC squirrel cage motor with IP55 protection, Class F insulation having a speed of 1450 rpm with inertia base, vibration isolation springs, rubber isolation bellows, flexible coupling for Primary chilled water circulation having the following duty conditions as per specifications: Supply, Installation, Testing & Commissioning, clearance, freight up to site, insurance, pump insulation and commissioning charges: Vertical in-line Pumps - Primary Variable Chilled water pumps (1W+1S) - 800USGPM @ 35m head, High Efficiency Motor (For L/T/H/T. Chiller)	Nos.	2		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
552	SITC OF Pumps shall be base mounted, single stage, vertical in-line/split casing pumps, design with a foot mounted volute to allow removal and service of the entire rotating assembly without disturbing the pump piping, electrical motor connections or pump to motor alignment. Efficiency of pumps shall be around 80%.Single stage centrifugal coupled type pumpset with axial suction port and radial discharge port, bronze impeller, mechanical seal, three phase TEFC squirrel cage motor with IP55 protection, Class F insulation having a speed of 1450 rpm with inertia base, vibration isolation springs, rubber isolation bellows, flexible coupling for Primary chilled water circulation having the following duty conditions as per specifications: Supply, Installation, Testing & Commissioning, clearance, freight up to site, insurance, pump insulation and commissioning charges: Vertical in-line Pumps - Primary Variable Chilled water pumps (1W+1S) -800USGPM @ 35m head, High Efficiency Motor (For Heat numn Chiller)	Nos.	2		0.00	
553	SITC of Pumps shall be base mounted, single stage, vertical in-line/split casing pumps, design with a foot mounted volute to allow removal and service of the entire rotating assembly without disturbing the pump piping, electrical motor connections or pump to motor alignment. Efficiency of pumps shall be around 80%.Single stage centrifugal coupled type pumpset with axial suction port and radial discharge port, bronze impeller, mechanical seal, three phase TEFC squirrel cage motor with IP55 protection, Class F insulation having a speed of 1450 rpm with inertia base, vibration isolation springs, rubber isolation bellows, flexible coupling for Primary chilled water circulation having the following duty conditions as per specifications: Supply, Installation, Testing & Commissioning, clearance, freight up to site, insurance, pump insulation and commissioning charges: Vertical in-line Pumps - Condensor water pumps (1W+1S) - 1000USGPM @25m head, High Efficiency Motor (For I.T/H.T. Chiller)	Nos.	2		0.00	
554	SITC of Pumps shall be base mounted, single stage, vertical in-line/split casing pumps, design with a foot mounted volute to allow removal and service of the entire rotating assembly without disturbing the pump piping, electrical motor connections or pump to motor alignment. Efficiency of pumps shall be around 80%.Single stage centrifugal coupled type pumpset with axial suction port and radial discharge port, bronze impeller, mechanical seal, three phase TEFC squirrel cage motor with IP55 protection, Class F insulation having a speed of 1450 rpm with inertia base, vibration isolation springs, rubber isolation bellows, flexible coupling for Primary chilled water circulation having the following duty conditions as per specifications: Supply, Installation, Testing & Commissioning, clearance, freight up to site, insurance, pump insulation and commissioning charges: Vertical in-line Pumps - VFD for condensor numn for I.T/HT chiller Around 25kW	Nos.	4		0.00	
555	SITC of Pumps shall be base mounted, single stage, vertical in-line/split casing pumps, design with a foot mounted volute to allow removal and service of the entire rotating assembly without disturbing the pump piping, electrical motor connections or pump to motor alignment. Efficiency of pumps shall be around 80%.Single stage centrifugal coupled type pumpset with axial suction port and radial discharge port, bronze impeller, mechanical seal, three phase TEFC squirrel cage motor with IP55 protection, Class F insulation having a speed of 1450 rpm with inertia base, vibration isolation springs, rubber isolation bellows, flexible coupling for Primary chilled water circulation having the following duty conditions as per specifications: Supply, Installation, Testing & Commissioning, clearance, freight up to site, insurance, pump insulation and commissioning charges: Vertical in-line Pumps - VFD for condensor numn for I.T/HT chiller Around 25kW	Nos.	2		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
556	SITC of Microprocessor based pump logic controller with adjustable frequency drive for each 22 KW motor, complete in IP 55 enclosure, differential pressure sensor/ transmitter, incoming MCCB/ACB with all control wiring and suitable for chiller CPOM Integration. DPT & Cabling shall be part of pump panel. Supply of the pump logic controller ,VFD, By-pass starter and panel for LT Pumps - Pump Control Panel	Set	10		0.00	
557	SITC of Microprocessor based pump logic controller with adjustable frequency drive for each 22 KW motor, complete in IP 55 enclosure, differential pressure sensor/transmitter, incoming MCCB/ACB with all control wiring and suitable for chiller CPOM Integration. DPT & Cabling shall be part of pump panel. Supply of the pump logic controller ,By-pass starter and panel for HT Pumps - Pump Control Panel	Set	1		0.00	
558	SITC of Circulator pumps with in-built pump controller. The circulator shall incorporate a 4-pole synchronous, permanent-magnet motor (PM motor). This motor type shall be characterised by higher efficiency than a conventional asynchronous squirrel-cage motor. The pump speed shall be controlled by an integrated frequency converter. Pump shall be fitted with a 1-phase OR 3-phase, permanent magnet, synchronous motor. Motor shall include a frequency converter and PI controller in the motor terminal box. - 50 USGPM @ 8m IE4/IE5 Motor	No.	2		0.00	
559	Supply of 10 mm PE-RT/PEXa ree Multipert-5 pipe with an oxygen barrier layer accordance with DIN 4726. Max design/operating temperature: 90°C, Malfunction temperature: 100°C, Operating pressure at 90°C: 6 Bar as per ISO 10508, with surface roughness not more than 40nm. Pipe shall be placed at a spacing of 80-150MM over the EPS insulation boards. Pipe to be stapled to the EPS boards using tacker needle clips. Pipe having 10 years manufacturing warranty: 10mm x 1,3 mm thick (as per Manufacturer Software selection) - 10mm (OD) X 1,3mm (Thickness)	Rmt	24750		0.00	
560	For heating & cooling THM Manifold 2xP10-12 made of Polyamid PA6,6 30% fiber glass consisting of a supply and a return bar and a mount with a sound-absorbing element. Supply bar: Plastic segment manifold is equipped on the return point with visual adjustable flow meters with range 0.6-2,4 /min. on return point. Manifold bodies are equipped with loading and emptying valve, deaerating valve 1/2", and required amount of consoles is a part of the package. Manifold connection: 6/4 " external screw. Circuit connection due to quick-couplings PUSH for pipes of d10x1,3mm. Maximal operational safe temperature 70 °C	Nos.	42		0.00	
561	THM Manifold cabinets under plaster 16 circ 830 mm distribution cabinet made of steel with removable door, also made of steel. Fastening bar installed on the rear wall. Powder coated RAL 9016. Height-adjustable cabinet feet 0 - 180mm. • Depth: 110 - 140mm • Height: 716 - 896mm Cabinet shall be with lock for distribution cabinet - Cabinet for manifold	Nos.	42		0.00	
562	Compression adapter to connect PE-RT/PEXa pipe to manifold. Compression fitting made of plastic to connect underfloor heating pipes with manifolds or valves. - Brass compression adapter	Nos.	925		0.00	
563	Supply & Installation of Extruded Polystyrene (EPS) - Density 24 Kg/m3 which need to fix on finished slab.	Sqmt	3300		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
564	Supply & Installation of PE texture track to be laid on EPS insulation used for guiding the PERT/PEXa pipes to be fixed on the insulation with the help of fixing clips with a pitch distance of 100mm. Woven PE fabric with printed installation grid as cutting orientation and for the exact alignment of the pipes, grid spacing 5cm. The woven fabric moreover serves as moisture barrier with unilateral foil protrusion to cover the insulating layer according to DIN 18560. Use as separating foil between dry construction element and insulation panel.	Sqmt	3300		0.00	
565	Supply & Installation of PE foil to be laid on EPS insulation used for guiding the radiant pipes pipes to be fixed on the insulation with the help of fixing clips with a pitch distance of 100/150mm.	Sqmt	3300		0.00	
566	Supply & Installation of self adhesive type edging strip for wall insulation self sticking type. Edge-insulation strips for the standard-compliant separation of the screed from adjoint construction elements according to DIN 18560 and DIN EN 1264 with laminated PE foil for sealing, particularly with self leveling floor screeds.	Rmt	3650		0.00	
567	Supply & Installation of Expansion joint profile for radiant floor heating / cooling system	Rmt	300		0.00	
568	Supply & Installation of Joint protection tubes	Nos	950		0.00	
569	9 mm Nitrile Rubber Class "O" Insulation for PERT/PEXa Piping Ø10 mm OD X 1.3 mm.As per technical specifications with all the necessary mounting	Rmt	24750		0.00	
570	2-Way motorised valve for manifold	Nos	42		0.00	
571	Supply and installing water temperature sensors in return or supply line or surface temperature sensor. Sensor shall be 1" long and shall be installed in thermo well.	Nos.	42		0.00	
572	PE tacker pin to fasten underfloor heating pipes on a suitable ground (stapler system).	Rmt	124024		0.00	
573	SITC Pressure gauges	Nos	84		0.00	
574	KLM FV Relieving case for pipe 10x1,3 mm	Nos.	2475		0.00	
575	Spherical valve for manifolds 1" -6/4" made by steel.	Nos.	84		0.00	
576	Push fitting for manifold 2x10-1/2"	Nos.	100		0.00	
577	THM Horizontal Decoiler	Nos.	4		0.00	
578	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Nammada/JCO/Eqvt.) - 400 mm dia pipes	Rmt	100		0.00	
579	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Nammada/JCO/Eqvt.) - 350 mm dia pipes	Rmt	100		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
580	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 300 mm dia pipes	Rmt	250		0.00	
581	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 250 mm dia pipes	Rmt	450		0.00	
582	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 200 mm dia pipes	Rmt	700		0.00	
583	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 150 mm dia pipes	Rmt	600		0.00	
584	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condensor line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 125 mm dia pipes	Rmt	400		0.00	

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585	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 100 mm dia pipes	Rmt	300		0.00	
586	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 80 mm dia pipes	Rmt	200		0.00	
587	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 65 mm dia pipes	Rmt	300		0.00	
588	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 50 mm dia pipes	Rmt	400		0.00	
589	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 40 mm dia pipes	Rmt	450		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
590	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/ICO/Eqvt.) - 32 mm dia pipes	Rmt	300		0.00	
591	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/ICO/Eqvt.) - 25 mm dia pipes	Rmt	300		0.00	
592	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 125mm dia pipes	Nos	1		0.00	
593	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 100mm dia pipes	Nos	48		0.00	
594	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 80mm dia pipes	Nos	48		0.00	
595	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 65mm dia pipes	Nos	48		0.00	
596	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 50mm dia pipes	Nos	48		0.00	
597	Supply, installation, testing and commissioning of Suction Guide to be installed at pump suction line with flanges. - 300 mm dia pipes	Nos	4		0.00	
598	Supply, installation, testing and commissioning of Suction Guide to be installed at pump suction line with flanges. - 250 mm dia pipes	Nos	4		0.00	
599	Supply, installation, testing and commissioning of Suction Guide to be installed at pump suction line with flanges. - 200 mm dia pipes	Nos	1		0.00	
600	Supplying, installation, testing and commissioning of Auto air vents. 20mm dia - 20mm dia	Nos	20		0.00	
601	SITC of Providing and fixing in position the industrial type pressure gauges with valves. - Pressure gauges 150mm dial	Nos	245		0.00	

Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
602	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make:Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 50 mm dia pipes	Rmt	200		0.00	
603	SITC of Providing and fixing in position the mercury-in-glass industrial type thermometers. - Temperature gauges 150mm dial	Nos	243		0.00	
604	SITC of Providing and fixing in position the Float Valve Switch. - Float Valve Switch	Nos	8		0.00	
605	SITC of Providing and fixing in position the temperature sensor. - Temperature sensor	Nos	8		0.00	
606	SITC of Providing and fixing in position the flow switch. - Flow Switch	Nos	3		0.00	
607	SITC of Providing and fixing in position antifreeze thermostat. - Antifreeze Thermostat	Nos	3		0.00	
608	SITC of Providing and fixing in position of drain valve - Drain Valve 25mm dia	Nos.	255		0.00	
609	SITC of Providing and fixing in position of test points - Test Points	Nos.	315		0.00	
610	SITC of Providing and fixing in position the following GI class heavy class pipes cut to required lengths and installed with all screwed joints, and providing and fixing in position the necessary elbows, tees and reducers as per specifications. - 50 mm dia	Rmt	100		0.00	
611	SITC of Providing and fixing in position the following GI class heavy class pipes cut to required lengths and installed with all screwed joints, and providing and fixing in position the necessary elbows, tees and reducers as per specifications. - 40 mm dia	Rmt	150		0.00	
612	SITC of Providing and fixing in position the following GI class heavy class pipes cut to required lengths and installed with all screwed joints, and providing and fixing in position the necessary elbows, tees and reducers as per specifications. - 32 mm dia	Rmt	100		0.00	
613	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/Jindal/Sail/Narmada/JCO/Eqvt.). - 40 mm dia pipes	Rmt	200		0.00	
614	SITC of Providing and fixing in position the following GI class heavy class pipes cut to required lengths and installed with all screwed joints, and providing and fixing in position the necessary elbows, tees and reducers as per specifications. - 25 mm dia	Rmt	50		0.00	
615	Supply, installation, testing & commissioning of CPVC pipe for condensate water with insulation 9mm thick nitrile rubber - 50 mm dia	Rmt	20		0.00	
616	Supply, installation, testing & commissioning of CPVC pipe for condensate water with insulation 9mm thick nitrile rubber - 40 mm dia	Rmt	50		0.00	
617	Supply, installation, testing & commissioning of CPVC pipe for condensate water with insulation 9mm thick nitrile rubber - 32 mm dia	Rmt	80		0.00	
618	Supply, installation, testing & commissioning of CPVC pipe for condensate water with insulation 9mm thick nitrile rubber - 25 mm dia	Rmt	110		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
619	<p>SITC of Expansion Tank: Supply, installing, testing and commissioning of PRESSURISED WATER EXPANSION TANK suitable for total volume of water in chilled water circuits along with necessary accessories such as pumps (1working +1standby), 2 No. pressure switches, 2 No. connections to chilled water pump header etc. in order to keep chilled water system under pressure and to prevent entrapment of pressure and to prevent entrapment of air in the system. The tank shall be pre-charged steel expansion tank with replaceable heavy duty butyl rubber bladder. The tank shall have 50mm system connection and 20 mm drain and charging valve connection to facilitate the on site charging of the tank to meet system requirement. The tank shall be fitted with lifting rings and a floor mounting skirt for vertical installation. The tank must be constructed in accordance with section VIII of the ASME Boiler and pressure vessel code and stamped 125 PSI working pressure. The complete system shall be sourced from single manufacturer and supplied and installed with all accessories and safety fixtures required for proper functioning of the complete hydronic system.</p> <p>The Contractor shall calculate the total volume of water and determine the expansion tank capacity.</p> <p>Chilled water Expansion Tank for MT chiller suited for above application: 1000ltr - with safety valves - Expansion Tank with pump set</p>	No.	1		0.00	
620	<p>Expansion Tank: Supply, installing, testing and commissioning of PRESSURISED WATER EXPANSION TANK suitable for total volume of water in chilled water circuits along with necessary accessories such as pumps (1working +1standby), 2 No. pressure switches, 2 No. connections to chilled water pump header etc. in order to keep chilled water system under pressure and to prevent entrapment of pressure and to prevent entrapment of air in the system. The tank shall be pre-charged steel expansion tank with replaceable heavy duty butyl rubber bladder. The tank shall have 50mm system connection and 20 mm drain and charging valve connection to facilitate the on site charging of the tank to meet system requirement. The tank shall be fitted with lifting rings and a floor mounting skirt for vertical installation. The tank must be constructed in accordance with section VIII of the ASME Boiler and pressure vessel code and stamped 125 PSI working pressure. The complete system shall be sourced from single manufacturer and supplied and installed with all accessories and safety fixtures required for proper functioning of the complete hydronic system.</p> <p>The Contractor shall calculate the total volume of water and determine the expansion tank capacity.</p> <p>Chilled water Expansion Tank for LT chiller suited for above application: 1000ltr - with safety valves - Expansion Tank with pump set</p>	No.	1		0.00	
621	<p>Air seperator/ Air cum dirt seperator: Supplying, installation, testing and commissioning of AIR SEPARATOR along with necessary accessories such as pumps etc to prevent entrapment of air in the system. The separator must be constructed in accordance with Section VIII ASME boiler and pressure vessel code and stamped for 125 psi working pressure. Chilled /hot water air seperator: 250mm dia PN16 air seperator with insulation of 32mm thick nitrile rubber with FRP coating with Flanges - Air cum dirt seperator</p>	No.	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
622	Air separator/ Air cum dirt separator: Supplying, installation, testing and commissioning of AIR SEPARATOR along with necessary accessories such as pumps etc to prevent entrapment of air in the system. The separator must be constructed in accordance with Section VIII ASME boiler and pressure vessel code and stamped for 125 psi working pressure. Chilled /hot water air separator: 250mm dia PN16 air separator with insulation of 32mm thick nitrile rubber with FRP coating - Air cum dirt separator	No.	1		0.00	
623	SITC of Pot type strainer 350mm dia for condenser circuit with flanges - 350mm Pot Strainer	No.	10		0.00	
624	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/lindal/Sail/Narmada/ICO/Equvt) - 32 mm dia pipes	Rmt	300		0.00	
625	SITC of Chilled & Condenser water piping: Providing & fixing the following factory rolled heavy class pipe as per IS1239/IS3589 pipes with specified wall thickness cut to required lengths and installed with all welded / grooved joints, providing and fixing in position necessary fittings like bends, elbows, tees, reducers, mating flanges (pipe flanges shall be confirm to IS:1536) & sockets for BAS, fabricated to size and shape in workshop or brought out ready made where available of acceptable quality. These pipes would have to be provided with a coat of zinc chromate primer and finished with 2 coats of spray painting at site for condenser line. (Make: Tata/lindal/Sail/Narmada/ICO/Equvt) - 25 mm dia pipes	Rmt	300		0.00	
626	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 400 mm dia Valves.	Nos	3		0.00	
627	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 350 mm dia Valves.	Nos	1		0.00	
628	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 300 mm dia Valves.	Nos	15		0.00	
629	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 250 mm dia Valves.	Nos	56		0.00	
630	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 200 mm dia Valves.	Nos	10		0.00	
631	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 150 mm dia Valves.	Nos	17		0.00	
632	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 125 mm dia Valves.	Nos	1		0.00	
633	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 100 mm dia Valves.	Nos	96		0.00	
634	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 80 mm dia Valves.	Nos	35		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
635	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 65 mm dia Valves.	Nos	20		0.00	
636	SITC of Butterfly Valve. Providing and fixing in position the following butterfly valves : above 200mm dia valve shall be with gear operated with flanges - 50 mm dia Valves.	Nos	48		0.00	
637	SITC of Butterfly Valve. Providing and fixing in position the following butterfly/ ball valves : above 200mm dia valve shall be with gear operated with flanges / threaded connection - 40 mm dia Valves	Nos	5		0.00	
638	SITC of Butterfly Valve. Providing and fixing in position the following butterfly/ ball valves : above 200mm dia valve shall be with gear operated with flanges / threaded connection - 32 mm dia Valves	Nos	10		0.00	
639	SITC of Butterfly Valve. Providing and fixing in position the following butterfly/ ball valves : above 200mm dia valve shall be with gear operated with flanges / threaded connection - 25 mm dia Valves	Nos	144		0.00	
640	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 300 mm dia Valves.	Nos	1		0.00	
641	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 250 mm dia Valves.	Nos	32		0.00	
642	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 200 mm dia Valves.	Nos	5		0.00	
643	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 150 mm dia Valves.	Nos	1		0.00	
644	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 125 mm dia Valves.	Nos	1		0.00	
645	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 100 mm dia Valves.	Nos	24		0.00	
646	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 80 mm dia Valves.	Nos	12		0.00	
647	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 65 mm dia Valves.	Nos	1		0.00	
648	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 50 mm dia Valves.	Nos	12		0.00	
649	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 40 mm dia Valves	Nos	1		0.00	
650	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 32 mm dia Valves	Nos	1		0.00	
651	Supplying, installation, testing and commissioning in position the following double regulating manual BALANCING VALVES with flanges. - 25 mm dia Valves	Nos	72		0.00	
652	SITC of Providing and fixing in position following ball valves without Y strainer with flanges - 50 mm dia valves	Nos	10		0.00	
653	SITC of Providing and fixing in position following ball valves without Y strainer with flanges - 40 mm dia valves	Nos	10		0.00	
654	SITC of Providing and fixing in position following ball valves without Y strainer with flanges - 32 mm dia valves	Nos	10		0.00	
655	SITC of Providing and fixing in position following ball valves without Y strainer with flanges - 25 mm dia pipes	Nos	10		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
656	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 300 mm dia Valves.	Nos	1		0.00	
657	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 250 mm dia Valves.	Nos	17		0.00	
658	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 200 mm dia Valves.	Nos	1		0.00	
659	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 150 mm dia Valves.	Nos	1		0.00	
660	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 125 mm dia Valves.	Nos	1		0.00	
661	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 100 mm dia Valves.	Nos	1		0.00	
662	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 80 mm dia Valves.	Nos	1		0.00	
663	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 65 mm dia Valves.	Nos	1		0.00	
664	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 50 mm dia Valves.	Nos	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
665	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 40 mm dia Valves	Nos	1		0.00	
666	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 32 mm dia Valves	Nos	1		0.00	
667	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 25 mm dia Valves	Nos	1		0.00	
668	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 150mm dia Mixing valve	Nos	1		0.00	
669	Motorised on-off Valve for chiller, cooling tower, TFA, AHU Supply, installation, testing and commissioning of TWO WAY VALVES with spring return function and fitted with motorised on/off actuator. Actuator shall have required shut off capability of minimum 4 bar. Actuator shall be activated from signals received from cooling thermostats with flanges. - 50mm dia Bleed off valve	Nos	8		0.00	
670	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges. - 125mm dia	Nos	1		0.00	
671	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges. - 100mm dia	Nos	24		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
672	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges. - 80mm dia	Nos	8		0.00	
673	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges/threaded connection. - 65mm dia	Nos	1		0.00	
674	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges/threaded connection. - 50mm dia	Nos	1		0.00	
675	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges/threaded connection. - 40mm dia	Nos	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
676	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges/threaded connection. - 32mm dia	Nos	1		0.00	
677	Supply, installation, testing & commissioning of approved make electronic, self balancing,pressure independent type balancing valve with integrated 2 way modulating control valve in a single body, PN 16 RATED.The Actuator shall be capable of accepting 2-10 VCD,4- 20mA electric signal and shall provide similar transducer feedback output signal to control system.The minimum close off pressure of actuator must be 1.5 times shut off head of pump as per specifications, thermostat, transformer and copper armoured control wiring for AHUs with fittings like valves, flanges and unions, etc. of chilled water system as per the approved shop drawings & specifications.The valves shall be of the following sizes and meets the chilled water flow requirement with flanges/threaded connection. - 25mm dia	Nos	72		0.00	
678	SITC of Providing and fixing in position the following check valves with flanges. - 350 mm dia	Nos	1		0.00	
679	SITC of Providing and fixing in position the following check valves with flanges. - 300 mm dia	Nos	1		0.00	
680	SITC of Providing and fixing in position the following check valves with flanges. - 250 mm dia	Nos	18		0.00	
681	SITC of Providing and fixing in position the following check valves with flanges. - 200 mm dia	Nos	1		0.00	
682	SITC of Providing and fixing in position the following check valves with flanges. - 150 mm dia	Nos	1		0.00	
683	SITC of Providing and fixing in position the following check valves with flanges. - 125 mm dia	Nos	1		0.00	
684	SITC of Providing and fixing in position the following check valves with flanges. - 100 mm dia	Nos	24		0.00	
685	SITC of Providing and fixing in position the following check valves with flanges. - 80 mm dia	Nos	24		0.00	
686	SITC of Providing and fixing in position the following check valves with flanges. - 65 mm dia	Nos	23		0.00	
687	SITC of Providing and fixing in position the following check valves with flanges. - 50 mm dia	Nos	26		0.00	
688	SITC of Providing and fixing in position the following check valves with flanges. - 40 mm dia	Nos	5		0.00	
689	SITC of Providing and fixing in position the following check valves with flanges. - 32 mm dia	Nos	4		0.00	
690	SITC of Providing and fixing in position the following check valves with flanges. - 25 mm dia	Nos	2		0.00	
691	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 350 mm dia	Nos	1		0.00	
692	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 300 mm dia	Nos	1		0.00	
693	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 250 mm dia	Nos	28		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
694	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 200 mm dia	Nos	1		0.00	
695	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 150 mm dia	Nos	1		0.00	
696	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 125 mm dia	Nos	1		0.00	
697	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 100 mm dia	Nos	24		0.00	
698	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 80 mm dia	Nos	24		0.00	
699	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 65 mm dia	Nos	23		0.00	
700	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 50 mm dia	Nos	23		0.00	
701	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 40 mm dia	Nos	5		0.00	
702	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 32 mm dia	Nos	4		0.00	
703	SITC of Providing and fixing in position the following 'Y' Strainers with flanges - 25 mm dia	Nos	2		0.00	
704	SITC of Providing and fixing in position the following pot strainers with flanges - 400 mm dia dia pipes.	Nos	1		0.00	
705	SITC of Providing and fixing in position the following pot strainers with flanges - 350 mm dia dia pipes.	Nos	1		0.00	
706	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 350 mm dia pipes	Nos	1		0.00	
707	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 300 mm dia pipes	Nos	1		0.00	
708	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 250 mm dia pipes	Nos	44		0.00	
709	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 200 mm dia pipes	Nos	1		0.00	
710	Supply, installation, testing and commissioning of flexible connections of suitable pressure rating to be installed at pump/chiller suction, discharge with flanges. - 150 mm dia pipes	Nos	1		0.00	
711	SITC OF O2 Plant	Nos	1		0.00	
				Sub Total of Part C:	0.00	
PART: D	BMS & NETWORKING					
712	SITC of BMS FOR lighting control and security system for control of lighting ,lightning strike counter, CCTV Control, Integration with fire system compatible computer drive . Scheme to be approved by Architect/Consultant for building automation	lot	1		0.00	
713	Supply, installation, testing and commissioning of layer-3 stackable core switch having 24 SFP+ (10G) ports for MM fibre to provide fibre connectivity upto 24 Access Switches installed in various locations of the building. Should have 4 SFP+ uplink ports. The core switch should be supplied with stackable cable and redundant power supply, complete as required.	nos	1		0.00	
714	Supply, installation, testing and commissioning of layer2 24-port POE Access Switch having 24 ports of 10/100/1000 Mbps and minimum 2 SFP+(10G) ports for uplink, complete as required	nos	4		0.00	
715	Supply, installation, testing and commissioning of 10G SFP+ module, complete as required	nos	10		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
716	Supply, installation, testing and commissioning of Dual band indoor WiFi Access point having 3x3 MIMO, 10/100/1000 Mbps Ethernet port having integrated antenna working on free ISM bands of 2.4GHz and 5.8 GHz . complete as required	nos	36		0.00	
717	Supply, installation, testing and commissioning of license for excess AP's for WiFi controller	nos	1		0.00	
718	Supply, installation, testing and commissioning of CAT 6A Cable (305 Mtrs Box), complete as required	box	6		0.00	
719	Supply, installation, testing and commissioning of Face Plate 1 Port - White, complete as required	nos	36		0.00	
720	Supply, installation, testing and commissioning of Cat6A RJ45 Jack, complete as required	nos	72		0.00	
721	Supply, installation, testing and commissioning of Cat 6A patch/mounting cord 3 mtrs, complete as required	nos	72		0.00	
722	Supply, installation, testing and commissioning of 24 Port loaded Patch Panel of Cat6A including adapters., etc , complete as required	nos	2		0.00	
723	Supply, installation, testing and commissioning of 12 Port MM LIU Fibre Panel - loaded with couplers, adapter plate, splice tray, pigtails etc., complete as required	nos	5		0.00	
724	Supply, installation, testing and commissioning of Multimode Fibre, 3 mtrs Patchcard, complete as required	nos	20		0.00	
725	Supply, installation, testing and commissioning of 6 Core MM Fibre Optic Cable, complete as required	rmt	500		0.00	
726	Supply, installation, testing and commissioning of 19" Rack 42U Floor Mount Rack with all standard accessories that include Cable Manager, Power Bar with sockets etc., complete as required	nos	1		0.00	
727	Supply, installation, testing and commissioning of 19" Rack 9U Floor Mount Rack with all standard accessories that include Cable Manager, Power Bar with sockets etc., complete as required	nos	4		0.00	
728	Supply, Installation & Commissioning of 100mm Raceway in Ceiling	rmt	400		0.00	
729	Supply, Installation, Testing and Commissioning of PVC Conduit 25 MM with Accessories	rmt	1080		0.00	
730	Supply, Installation, Testing and Commissioning of 3X3 GANG BOX	nos	36		0.00	
				Sub Total of Part D:	0.00	
PART: E	PLUMBING					
731	SITC of drip irrigation system with pumps ,pipes, valves for drip irrigation.	Each	1		0.00	
732	SITC of water management system of site with Mechanical Filtration,Biological Filtration ,Aeration & Oxygen enhancer ,Pumps-Valves-Strainers Drip watering system,Automation complete setup for management of site.	nos	1		0.00	
733	Providing and fixing in position set of EWC and WHB size 46x36 cm for Handicapped person of approved make (to the approval of the Engineer-in-charge) consisting of matching cistern, one pair mounting brackets, seat cover, one no. hinges rail 76cm and 4 no. grab rails 60cm complete in all respect and to the entire satisfaction of Engineer-in-charge	Each	1		0.00	
734	Providing and fixing in position Chinaware extended wall mounted E. W.C. type suite (size 66 x 46 x 77.5 cm) with P trap or S trap of approved make (to the approval of the Engineer-in-charge) with 10 ltr. chinaware matching flushing cistern and seat cover complete in all respect and to the entire satisfaction of Engineer-in-charge. Chinaware Extended wall mounted E W.C. with matching chinaware cistern and seat cover complete in all respect.	Each	20		0.00	
735	Providing and Fixing of ecoloo type water closet with vent pipes and all required material and accessories as per manufacture details and approval of project in charge including cutting and making good the wall and floors wherever required.	Each	7		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
736	Providing and Fixing White vitreous china Under counter wash basin with C.I. brackets painted white, 32mm dia. C.P. waste, C.P chain and rubber plug, C.P. connecting pipe to wall and C.P wall flange and rubber adapter for waste connection complete including cutting and making good the walls wherever required etc. complete in all respect as per direction of Engineering-in-charge.	Each	26		0.00	
737	Providing and Fixing vitreous china water less urinal with C.I. hangers, 15mm dia inlet to built in spreaders with inbuilt waste with C.P flange, complete including cutting and making good the walls and floors wherever required Make: (HINDWARE "AQUAFREE" 60017, GEBERIT ARTICLE NO: 116.071.00.1)	Each	6		0.00	
738	Providing and fixing partition for different type of urinals. Vitreous white Chinaware Partition Large partition size 75 x 16.5 x 36.5 cm	Each	6		0.00	
739	Providing and Fixing of C.P. Brass toilet paper holder, including cutting and making good the walls wherever required.	Each	27		0.00	
740	Providing and Fixing of stainless steel sink with drain board with C.I. brackets, duly painted white 40mm C.P. waste,C.P. brass chain and rubber plug, 40mm C.P cast bottle trap with connection pipe to wall and C.P. wall flange, rubber adapter for waste connection complete including cutting and making good the walls wherever required. Single bowl with drain board	Each	2		0.00	
741	Providing and Fixing of wall mounted central hole CP brass sink mixer with Swinging casted spout of required size wall mounted with 450 mm long copper pipe including cutting and making good the walls wherever required.	Each	2		0.00	
742	Providing and Fixing of Hand Shower (Health Faucet) with 8 mm dia, 1 Meter long Flexible tube & wall hook including cutting and making good the walls wherever required complete as per instructions of the engineer-in-charge.	Each	27		0.00	
743	Providing and Fixing straight / offset type flexible single body push fit type WC pan connector with factory supplied seal guard with integral Single mould sealing fins made of flexible EVA body, including bush / adaptor for use with C.I. Pipe as supplied with the pan connector.	Each	27		0.00	
744	Providing & Fixing in position 15 mm i/d bib cock of approved make (to the approval of Engineer-in-charge)complete in all respect. C.P. brass Bib cock long nose/ long body foam flow with flange	Each	29		0.00	
745	Providing and fixing C.P cast brass Double coat hook as approved with C.P. brass screws complete as per instructions of the engineer- in-charge. Make: (Jaquar ACN-CHR-1161N)	Each	27		0.00	
746	Providing and Fixing of CP Towel Rail 600 mm long fixed to PVC cleats with C.P. brass screws including cutting and making good the walls wherever required.	Each	10		0.00	
747	Providing and Fixing of 4-Way diverter with Built-in NRV with Divertor handle for bath and shower complete as per instructions of the engineer-in-charge.	Each	10		0.00	
748	Providing and Fixing of Over head rain shower complete as per instructions of the engineer-in-charge	Each	10		0.00	
749	Providing and Fixing of CP Bath spout with wall flange complete as per instructions of the engineer-in-charge.	Each	10		0.00	
750	Providing and Fixing of 15 mm dia CP Concealed Stop cock complete in all respect as per the instruction of the Engineer-In-Charge.	Each	20		0.00	
751	Providing and Fixing of C.P brass air purifier container, fixed to wooden cleats with Stainless Steel screws, complete including making good the walls wherever required.	Each	27		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
752	Providing and fixing Stainless Steel Body Auto hand drier to be operated with 220 volts, single phase, with fully hygienic condition, with all accessories including cutting and making good the walls, wherever required etc. complete in all respect as per direction of Engineering-in-charge. Make: (EURONICS EH 21 NW), (TOSHI HK-2000 SA), (UTEC UT-524)	Each	4		0.00	
753	Providing and fixing in position C.P. brass bottle trap 32mm dia with 40 mm seal of approved make (to the approval of Engineer- incharge) complete in all respect.	Each	26		0.00	
754	Providing and fixing in position C.P. Brass Basin mixer of approved make (to the approval of Engineer-in-charge)	Each	26		0.00	
755	Providing and fixing in position towel ring of approved make (to the approval of Engineer-in-charge) fixed in with rawl plugs embedded in walls with brass screws complete in all respect. C.P brass towel ring	Each	20		0.00	
756	Providing and fixing in position C.P. brass soap dish of approved make (to the approval of Engineer-in-charge) fixed into wall with rawl plugs and C.P brass screws complete in all respect.	Each	10		0.00	
757	Providing & Fixing Angle valve of approved make (to the approval of Engineer-in-charge) complete in all respect. C.P.brass 15mm Angle valve with flange	Each	126		0.00	
758	Providing and Fixing of position storage type Hot Water electrical horizontal heaters with copper container, insulation, and stove enameled M.S. jacket, thermostatically controlled immersion heater, with pilot lamp, 15/20mm dia inlet with non return valve and 15/20mm dia outlet including making connections complete in all respects. (wall mounted with suitable M.S. bolts and nuts). Capacity 15 litres	Each	10		0.00	
759	Providing and Fixing of position storage type Hot Water electrical horizontal heaters with copper container, insulation, and stove enameled M.S. jacket, thermostatically controlled immersion heater, with pilot lamp, 15/20mm dia inlet with non return valve and 15/20mm dia outlet including making connections complete in all respects. (wall mounted with suitable M.S. bolts and nuts). Capacity 25 litres	Each	12		0.00	
760	Providing and Fixing of position storage type Hot Water electrical horizontal heaters with copper container, insulation, and stove enameled M.S. jacket, thermostatically controlled immersion heater, with pilot lamp, 15/20mm dia inlet with non return valve and 15/20mm dia outlet including making connections complete in all respects. (wall mounted with suitable M.S. bolts and nuts). Capacity 50 litres	Each	3		0.00	
761	Providing and fixing centrifugally cast (spun) iron Hubless soil, waste pipes as per IS:15905 including all fittings with or without access of any degree i.e bends, junctions, cowls, offsets, access pieces, G.I. holder bats and clamps, stays, etc and jointing with stainless steel couplings with EPDM Rubber including cutting holes in walls and floors, excavation, refilling and disposal of surplus earth wherever required and making good the same complete, as directed by the Engineer-in-charge. Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905 (100 mm dia.)	Meter	280		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
762	Providing and fixing centrifugally cast (spun) iron Hubless soil, waste pipes as per IS:15905 including all fittings with or without access of any degree i.e bends, junctions, cowls, offsets, access pieces, G.I. holder bats and clamps, stays, etc and jointing with stainless steel couplings with EPDM Rubber including cutting holes in walls and floors, excavation, refilling and disposal of surplus earth wherever required and making good the same complete, as directed by the Engineer-in-charge. Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905 (150 mm dia.)	Meter	120		0.00	
763	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors : Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905 (100 mm inlet and 100 mm outlet)	Each	30		0.00	
764	Providing and fixing G.I floor drain consisting of 100x50mm G.I elbow (grating and G.I pipe to be paid separately), complete as per instructions.	Each	20		0.00	
765	Providing and fixing G.I. inlet fitting with one or more inlets fabricated from 100mm dia G.I. pipe and welded G.I. sockets and fixed to C.I. trap by lead joint.	Each	30		0.00	
766	Providing & fixing cast brass clean out plug (FCO & COP) with suitable insert keys for opening, male threaded joint with G.I. socket caulked to soil pipe/waste pipe of C.I. and C.I. (LA) pipe as required. (Both for floor & along ceiling level) 100 mm Dia.	Each	10		0.00	
767	Providing & fixing cast brass clean out plug (FCO & COP) with suitable insert keys for opening, male threaded joint with G.I. socket caulked to soil pipe/waste pipe of C.I. and C.I. (LA) pipe as required. (Both for floor & along ceiling level) 150 mm Dia.	Each	8		0.00	
768	Providing and laying cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 stone aggregate 20mm and down gauge) 75mm in bed and around C.I. soil and waste pipe. 100mm, 75mm and 50mm dia pipes under floor including centering and shuttering wherever required.	Meter	110		0.00	
769	Providing and fixing 125mm dia SS Grating with 2 stainless steel screws, ring to be embedded in floor with sealant	Each	50		0.00	
770	Providing and Fixing G.I. "C" class pipe complete with G.I. Fittings and clamps, including cutting and making good the walls etc.(Internal work) 32 mm nominal bore	Meter	45		0.00	
771	Providing and Fixing G.I. "C" class pipe complete with G.I. Fittings and clamps, including cutting and making good the walls etc.(Internal work) 40 mm nominal bore	Meter	15		0.00	
772	Providing and Fixing G.I. "C" class pipe complete with G.I. Fittings and clamps, including cutting and making good the walls etc.(Internal work) 50 mm nominal bore	Meter	35		0.00	
773	Painting of G.I. pipes with two coats of bitumastic paint wrapping polythene tape and applying the final coat of bitumastic paint. 32 mm nominal bore	Meter	45		0.00	
774	Painting of G.I. pipes with two coats of bitumastic paint wrapping polythene tape and applying the final coat of bitumastic paint. 40 mm nominal bore	Meter	15		0.00	
775	5Painting of G.I. pipes with two coats of bitumastic paint wrapping polythene tape and applying the final coat of bitumastic paint. 50 mm nominal bore	Meter	35		0.00	

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776	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All Kinds of Soil Pipes, cables etc, not exceeding 80 mm dia.	Meter	780		0.00	
777	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 20 mm nominal bore	metre	30		0.00	
778	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 25 mm nominal bore	metre	35		0.00	
779	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 32 mm nominal bore	metre	20		0.00	
780	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 40 mm nominal bore	metre	20		0.00	
781	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 50 mm nominal bore	metre	20		0.00	
782	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 65 mm nominal bore	metre	280		0.00	
783	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 80 mm nominal bore	metre	60		0.00	
784	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work exposed on wall 100 mm nominal bore	metre	60		0.00	
785	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External works 32 mm nominal bore	metre	10		0.00	
786	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External works 40 mm nominal bore	metre	10		0.00	
787	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External works 50 mm nominal bore	metre	20		0.00	
788	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External works 65 mm nominal bore	metre	300		0.00	
789	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External works 80 mm nominal bore	metre	10		0.00	
790	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in- Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. CPVC SDR 11 Pipe & fitting 16mm o/d	metre	40		0.00	

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791	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in- Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. CPVC SDR 11 Pipe & fitting 20mm o/d	metre	525		0.00	
792	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in- Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. CPVC SDR 11 Pipe & fitting 25mm o/d	metre	70		0.00	
793	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in- Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. CPVC SDR 11 Pipe & fitting 32mm o/d	metre	50		0.00	
794	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in- Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. CPVC SDR 11 Pipe & fitting 40mm o/d	metre	30		0.00	
795	CONCEALED IN WALL: Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes as per IS 15778 (ISI marked with the prior approval of Engineer-in- Charge), having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing including jointing of pipes & fittings, with one step CPVC solvent cement and testing of pipes complete as per direction of Engineer-in-Charge. CPVC SDR 11 Pipe & fitting 50mm o/d	metre	20		0.00	
796	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 20 mm dia	Meter	30		0.00	
797	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 25 mm dia	Meter	35		0.00	
798	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 32 mm dia	Meter	20		0.00	
799	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 40 mm dia	Meter	20		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
800	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 50 mm dia	Meter	20		0.00	
801	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 65 mm dia	Meter	280		0.00	
802	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 80 mm dia	Meter	60		0.00	
803	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work : 100 mm dia	Meter	60		0.00	
804	Providing and filling sand grading as per specifications or fine grade around the various sizes of G.I. pipes in external work. 32 mm nominal bore	metre	10		0.00	
805	Providing and filling sand grading as per specifications or fine grade around the various sizes of G.I. pipes in external work. 40 mm nominal bore	metre	10		0.00	
806	Providing and filling sand grading as per specifications or fine grade around the various sizes of G.I. pipes in external work. 50 mm nominal bore	metre	20		0.00	
807	Providing and filling sand grading as per specifications or fine grade around the various sizes of G.I. pipes in external work. 65mm nominal bore	metre	300		0.00	
808	Providing and filling sand grading as per specifications or fine grade around the various sizes of G.I. pipes in external work. 80mm nominal bore	metre	10		0.00	
809	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality : 32 mm dia pipe	Meter	10		0.00	
810	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality : 40 mm dia pipe	Meter	10		0.00	
811	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality : 50 mm dia pipe	Meter	20		0.00	
812	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality : 65 mm dia pipe	Meter	300		0.00	
813	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality : 80 mm dia pipe	Meter	10		0.00	
814	Providing, fixing and jointing Brass Ball valves screwed with SS/BRASS ball & spindle & Teflon seats, on G.I. Pipe lines including all carriages complete. 20mm i/d Brass Ball valves	Each	15		0.00	
815	Providing, fixing and jointing Brass Ball valves screwed with SS/BRASS ball & spindle & Teflon seats, on G.I. Pipe lines including all carriages complete. 25mm i/d Brass Ball valves	Each	35		0.00	
816	Providing, fixing and jointing Brass Ball valves screwed with SS/BRASS ball & spindle & Teflon seats, on G.I. Pipe lines including all carriages complete. 32mm i/d Brass Ball valves	Each	15		0.00	

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817	Providing, fixing and jointing Brass Ball valves screwed with SS/BRASS ball & spindle & Teflon seats, on G.I. Pipe lines including all carriages complete. 40mm i/d Brass Ball valves	Each	5		0.00	
818	Providing, fixing and jointing Brass Ball valves screwed with SS/BRASS ball & spindle & Teflon seats, on G.I. Pipe lines including all carriages complete. 50mm i/d Brass Ball valves	Each	5		0.00	
819	Providing and fixing C.I butterfly valve, wafer end type class PN 1.6 as per I.S:13095 or BS:5155, including necessary nuts, bolts, gaskets etc., complete (flanges to be paid separately) 65 mm dia	Each	5		0.00	
820	Providing and fixing C.I butterfly valve, wafer end type class PN 1.6 as per I.S:13095 or BS:5155, including necessary nuts, bolts, gaskets etc., complete (flanges to be paid separately) 80 mm dia	Each	5		0.00	
821	Providing and fixing C.I butterfly valve, wafer end type class PN 1.6 as per I.S:13095 or BS:5155, including necessary nuts, bolts, gaskets etc., complete (flanges to be paid separately) 100 mm dia	Each	10		0.00	
822	Constructing masonry chamber 30x30x50 cm with FPS bricks, inside with brick work in cement mortar 1:4 (1 cement : 4 Coarse sand) for stop cock, with C.I. surface box 100x100x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement: 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 mix (1 cement : 5 fine sand and 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design. With common burnt clay FPS (non modular) bricks of class designation 7.5	Each	15		0.00	
823	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm. top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement :2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5.	Each	5		0.00	
824	Providing & fixing Single air valve ISI Marked as per IS-14845 including jointing , cost of nut bolts & rubber insertion all carriages complete. C.I Single air valve screwed (Size 25mm)	Each	2		0.00	
825	Providing and Fixing Pressure Reducing station for cold water supply comprising of 2 Nos. of brass ball valves on outlet and bye-pass and ball valve with inbuilt strainers and a PRV (Diaphragm type) unit with out going pressure gauge with flanged or union connection including safety valve. The complete system is tested to a pressure not less than 15 Kg/Cm2 and suitable to reduce the pressure as per requirement including flanges/unions, nuts, bolts and washers complete as required for applications. 20 mm dia.	Each	10		0.00	

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826	Providing and Fixing Pressure Reducing station for cold water supply comprising of 2 Nos. of brass ball valves on outlet and bye-pass and ball valve with inbuilt strainers and a PRV (Diaphragm type) unit with out going pressure gauge with flanged or union connection including safety valve. The complete system is tested to a pressure not less than 15 Kg/Cm2 and suitable to reduce the pressure as per requirement including flanges/unions, nuts, bolts and washers complete as required for applications. 25 mm dia.	Each	10		0.00	
827	Providing and Fixing Pressure Reducing station for cold water supply comprising of 2 Nos. of brass ball valves on outlet and bye-pass and ball valve with inbuilt strainers and a PRV (Diaphragm type) unit with out going pressure gauge with flanged or union connection including safety valve. The complete system is tested to a pressure not less than 15 Kg/Cm2 and suitable to reduce the pressure as per requirement including flanges/unions, nuts, bolts and washers complete as required for applications. 32 mm dia.	Each	5		0.00	
828	Providing and Fixing Pressure Reducing station for cold water supply comprising of 2 Nos. of brass ball valves on outlet and bye-pass and ball valve with inbuilt strainers and a PRV (Diaphragm type) unit with out going pressure gauge with flanged or union connection including safety valve. The complete system is tested to a pressure not less than 15 Kg/Cm2 and suitable to reduce the pressure as per requirement including flanges/unions, nuts, bolts and washers complete as required for applications. 40 mm dia.	Each	5		0.00	
829	Providing and Fixing Pressure Reducing station for cold water supply comprising of 2 Nos. of brass ball valves on outlet and bye-pass and ball valve with inbuilt strainers and a PRV (Diaphragm type) unit with out going pressure gauge with flanged or union connection including safety valve. The complete system is tested to a pressure not less than 15 Kg/Cm2 and suitable to reduce the pressure as per requirement including flanges/unions, nuts, bolts and washers complete as required for applications. 50 mm dia.	Each	5		0.00	
830	Providing and fixing thermal insulation over hot water pipes in chase having Japanese Red Oxide Primer Coat with 6mm thick Kaiflex, nitrile or approved equivalent thermal insulation tubing, a elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber having density of 60-90 Kg/m3 over pipes of following sizes including all required accessories complete as per Manufacture's specifications and finishing complete in all respect as directed by Engineer-in-charge. 15 mm dia	Meter	15		0.00	
831	Providing and fixing thermal insulation over hot water pipes in chase having Japanese Red Oxide Primer Coat with 6mm thick Kaiflex, nitrile or approved equivalent thermal insulation tubing, a elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber having density of 60-90 Kg/m3 over pipes of following sizes including all required accessories complete as per Manufacture's specifications and finishing complete in all respect as directed by Engineer-in-charge. 20 mm dia	Meter	140		0.00	
832	Providing and fixing thermal insulation over hot water pipes in chase having Japanese Red Oxide Primer Coat with 6mm thick Kaiflex, nitrile or approved equivalent thermal insulation tubing, a elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber having density of 60-90 Kg/m3 over pipes of following sizes including all required accessories complete as per Manufacture's specifications and finishing complete in all respect as directed by Engineer-in-charge. 25 mm dia	Meter	15		0.00	

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833	Providing and fixing thermal insulation over hot water pipes in chase having Japanese Red Oxide Primer Coat with 6mm thick Kaiflex, nitrile or approved equivalent thermal insulation tubing, a elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber having density of 60-90 Kg/m ³ over pipes of following sizes including all required accessories complete as per Manufacture's specifications and finishing complete in all respect as directed by Engineer-in-charge. 32 mm dia	Meter	15		0.00	
834	Providing and Laying uPVC water pipes (I.S:4985) of 10 Kg/cm ² including all fittings e.g. bends, junctions, elbow, f-tee, m-tee, offsets, access pieces etc. jointing with solvent cement complete. Rates includes any type of fittings required for the provision of Garden Hydrant point in main ring of the Hydrant pipe in different location complete in all respects with testing of joints etc per direction of the engineer in charge. 25 mm dia.	Meter	20		0.00	
835	Providing and Laying uPVC water pipes (I.S:4985) of 10 Kg/cm ² including all fittings e.g. bends, junctions, elbow, f-tee, m-tee, offsets, access pieces etc. jointing with solvent cement complete. Rates includes any type of fittings required for the provision of Garden Hydrant point in main ring of the Hydrant pipe in different location complete in all respects with testing of joints etc per direction of the engineer in charge. 32 mm dia.	Meter	40		0.00	
836	Providing and Laying uPVC water pipes (I.S:4985) of 10 Kg/cm ² including all fittings e.g. bends, junctions, elbow, f-tee, m-tee, offsets, access pieces etc. jointing with solvent cement complete. Rates includes any type of fittings required for the provision of Garden Hydrant point in main ring of the Hydrant pipe in different location complete in all respects with testing of joints etc per direction of the engineer in charge. 40 mm dia.	Meter	20		0.00	
837	Providing and Laying uPVC water pipes (I.S:4985) of 10 Kg/cm ² including all fittings e.g. bends, junctions, elbow, f-tee, m-tee, offsets, access pieces etc. jointing with solvent cement complete. Rates includes any type of fittings required for the provision of Garden Hydrant point in main ring of the Hydrant pipe in different location complete in all respects with testing of joints etc per direction of the engineer in charge. 50 mm dia.	Meter	20		0.00	
838	Providing and Laying uPVC water pipes (I.S:4985) of 10 Kg/cm ² including all fittings e.g. bends, junctions, elbow, f-tee, m-tee, offsets, access pieces etc. jointing with solvent cement complete. Rates includes any type of fittings required for the provision of Garden Hydrant point in main ring of the Hydrant pipe in different location complete in all respects with testing of joints etc per direction of the engineer in charge. 63 mm dia.	Meter	330		0.00	
839	Providing & fixing M.S. structural work fabricated from standard section e.g. M.S rounds, angles, channels, plates including cutting to size,drilling,welding fixing and welding to insert plates in RCC structural members as directed by engineer-in-charge including cutting and making good the walls, ceilings and floors. (As per the Instructions of the Engineer-In-Charge)	Kg	500		0.00	
840	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m, including getting out the excavated soil, and then returning soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed within a lead of 50 m. Pipes, cables etc., exceeding 80mm dia but not exceeding 300mm dia	Meter	505		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
841	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m, including getting out the excavated soil, and then returning soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed within a lead of 50 m. Pipes etc., exceeding 300mm dia but not exceeding 600mm dia	Meter	20		0.00	
842	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre). Pipes, cables etc., exceeding 80mm dia but not exceeding 300mm dia	Meter	350		0.00	
843	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre). Pipes etc., exceeding 300mm dia but not exceeding 600mm dia	Meter	20		0.00	
844	Providing, lowering in trenches to correct gradient and alignment, jointing with tyton rubber joint and cutting of reinforced cement concrete spigot and socketed pipes and specials with rubber ring ISI marekd as perIS code IS 458-2003 into trenches for all depths and laying out the same to correct alignment, gradients, levels etc. cutting of concrete beds and joints holes, supporting the pipes and specials in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benchings, haunches and envelopes are completed. The pipes shall rest on the beds at all joints through their lengths and fixing of rubber ring, facing, testing the pipes forleakage and making good the same leakage and all defects to the entire satisfaction of the Engineer-in-charge including all cartage etc. 200 mm dia. pipe	Meter	110		0.00	
845	Providing, lowering in trenches to correct gradient and alignment, jointing with tyton rubber joint and cutting of reinforced cement concrete spigot and socketed pipes and specials with rubber ring ISI marekd as perIS code IS 458-2003 into trenches for all depths and laying out the same to correct alignment, gradients, levels etc. cutting of concrete beds and joints holes, supporting the pipes and specials in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benchings, haunches and envelopes are completed. The pipes shall rest on the beds at all joints through their lengths and fixing of rubber ring, facing, testing the pipes forleakage and making good the same leakage and all defects to the entire satisfaction of the Engineer-in-charge including all cartage etc. 250 mm dia. pipe	Meter	80		0.00	
846	Providing, lowering in trenches to correct gradient and alignment, jointing with tyton rubber joint and cutting of reinforced cement concrete spigot and socketed pipes and specials with rubber ring ISI marekd as perIS code IS 458-2003 into trenches for all depths and laying out the same to correct alignment, gradients, levels etc. cutting of concrete beds and joints holes, supporting the pipes and specials in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benchings, haunches and envelopes are completed. The pipes shall rest on the beds at all joints through their lengths and fixing of rubber ring, facing, testing the pipes forleakage and making good the same leakage and all defects to the entire satisfaction of the Engineer-in-charge including all cartage etc. 300 mm dia. pipe	Meter	110		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
847	Providing, lowering in trenches to correct gradient and alignment, jointing with tyton rubber joint and cutting of reinforced cement concrete spigot and socketed pipes and specials with rubber ring ISI marekd as per IS code IS 458-2003 into trenches for all depths and laying out the same to correct alignment, gradients, levels etc. cutting of concrete beds and joints holes, supporting the pipes and specials in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benchings, haunches and envelopes are completed. The pipes shall rest on the beds at all joints through their lengths and fixing of rubber ring, facing, testing the pipes for leakage and making good the same leakage and all defects to the entire satisfaction of the Engineer-in-charge including all cartage etc. 400 mm dia. pipe	Meter	20		0.00	
848	Providing and laying High density Polythene (HDPE Pipes) material grade PE - 80, working pressure rating PN 4 (0.4 maximum permissible working pressure) confirming IS - 14333 including all fittings and jointed by Butt welding method including testing of joints etc. complete as required. 160 mm O.D.	Meter	15		0.00	
849	Providing and laying High density Polythene (HDPE Pipes) material grade PE - 80, working pressure rating PN 4 (0.4 maximum permissible working pressure) confirming IS - 14333 including all fittings and jointed by Butt welding method including testing of joints etc. complete as required. 225 mm O.D.	Meter	190		0.00	
850	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :: 150 x 100 mm size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4		0.00	
851	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :: 180 x 150 mm size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4		0.00	
852	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with RCC Top slab with 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement :4 coarse sand: 8 graded stone aggregate 40 nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design . Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay FPS(non modular) bricks of class designation 7.5	Each	3		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
853	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with RCC Top slab with 1:2:4 mix (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement :4 coarse sand: 8 graded stone aggregate 40 nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design . Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) : With common burnt clay FPS(non modular) bricks of class designation 7.5	Each	3		0.00	
854	Extra depth of manholes Size 90x80cms With FPS Bricks with class designation75	Meter	2		0.00	
855	Extra depth of manholes Size 120x90cms With FPS Bricks with class designation75	Meter	2		0.00	
856	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10		0.00	
857	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	15		0.00	
858	Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast R.C.C. horizontal grating with frame and vertical grating complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10		0.00	
859	Constructing Brick Masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 Coarse sand), inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in Cement Concrete 1:2:4 (1 Cement : 2 Coarse Sand : 4 Graded Stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design. External surface shall be finished with 15mm thick cement plaster 1:6 (1 cement : 6 Coarse sand) as per side conditions. 0.91 m deep with hinged SFRC cover and frame (heavy duty weight of cover & frame to be not less than 80 kg.) 560 mm internal diameter, fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete.(Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) : With common burnt clay FPS(non modular) bricks of class designation 7.5	Each	12		0.00	
860	Extra depth for circular type Manhole 0.91 internal dia with F.P.S. Bricks class designation 75, depth beyond 0.91 m to 1.67 m	Meter	5		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
861	Constructing Brick Masonry circular manhole 1.22 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 Coarse sand), cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in Cement Concrete 1:2:4 (1 Cement : 2 Coarse Sand : 4 Graded Stone Aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design. External surface shall be finished with 15mm thick cement plaster 1:6 (1 cement : 6 Coarse sand) as per side conditions. 1.68 m deep with hinged SFRC Cover and frame (heavy duty weight of cover & frame to be not less than 80 kg) 560 mm internal diameter fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) : With common burnt clay FPS(non modular) bricks of class designation 7.5	Each	14		0.00	
862	Extra depth for Circular type Manhole 1.22 m internal dia (at Bottom) With F.P.S bricks class designation 75, Depth beyond 1.68 to 2.29 m.	Meter	6		0.00	
863	Constructing Brick Masonry circular manhole 1.52 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 Coarse sand), inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in Cement Concrete 1:2:4 (1 Cement : 2 Coarse Sand : 4 Graded Stone Aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design .External surface shall be finished with 15mm thick cement plaster 1:6 (1 cement : 6 Coarse sand) as per side conditions. 2.30 m deep with SFRC Cover and frame (heavy duty weight of cover & frame to be not less than 80 kg) 560 mm internal diameter fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) : With common burnt clay FPS(non modular) bricks of class designation 7.5	Each	1		0.00	
864	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Meter	1		0.00	
865	Providing orange colour safety footrest of minimum 6mm thick plastic encapsulated as per IS:10910 on 12mm dia steel bar conforming to IS: 1786 having minimum cross section as 23mm x 25mm and over all minimum length 263mm and width as 165mm with minimum 112mm space between protruted legs having 2mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specification and having manufacturer's permanent identification mark to be visible even after fixing, including fixing in manholes with 230x150x75cm cement concrete block 1:2:4 (1 cement: 2 sand: 4 stone aggregate) complete as per design.	Each	150		0.00	

Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
866	Construction of Grease trap of size 2 m x 1 m (Internal) with effective depth of 1 m with Brick Masonry in Cement 1:4 (1 Cement: 4 Coarse sand) over a bed of 150 mm thick PCC 1:5:10 (1 Cement: 5 Coarse sand: 10 graded stone aggregate 40 mm nominal size) including a baffle wall of Brick work, covered with RCC slab of 150 mm thickness, of 1:2:4 mix (1 Cement: 2 Coarse sand: 4 graded stone aggregate of 20 mm nominal size) including centering, shuttering and reinforcement complete with providing and fixing Foot rests @300 mm C to C with Two 600x600 mm D.I. Manhole Covers with Lifting arrangement, including 150 mm dia Inlet & Outlet pipes complete.	Each	1		0.00	
867	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer – in-charge, upto 90 metre depth below ground level. All types of soil 400 mm dia.	Meter	360		0.00	
868	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818-2010, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer – in-charge. 200 mm nominal size dia.	Meter	240		0.00	
869	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS:12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge. 200 mm nominal size dia.	Meter	120		0.00	
870	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer -in-charge.	Each	2		0.00	
871	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge	Cum	20		0.00	
872	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, inrequired thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	20		0.00	
873	Supplying, filling, spreading & leveling coarse sand of size range 1.5mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.	Cum	20		0.00	
874	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	Cum	10		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
875	Development of tube well in accordance with IS : 2800 (part I) and IS:11189, to establish maximum rate of usable water yield without sandcontent (beyond permissible limit), with required capacity aircompressor, running the compressor for required time till well is fullydeveloped, measuring yield of well by "V" notch method or any otherapproved method, measuring static level & draw down etc. by stepdraw down method, collecting water samples & getting tested inapproved laboratory, i/c disinfection of tubewell, all complete, includinghire & labour charges of air compressor, tools & accessories etc.,all as per requirement and direction of Engineer-in-charge.	Hour	72		0.00	
876	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of 200 mm dia.	Each	3		0.00	
877	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I). 200 mm dia.	Each	2		0.00	
878	Construction of brick masonry desilting chamber of size 200x100x60cm (effective depth) before rainy well with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) , foundation concrete 1:4:8 mix (1 cement : 4 coarse sand; 8 graded stone aggregate 40mm nominal size), inside and outside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement inside and rough plaster on outside, including fixing of grating , neatly finished complete in all respects including neccessary excavation, refilling and disposal of surplus earth, complete. (Shop drawing to be submitted for approval before execution of work).	Each	2		0.00	
				Sub Total of Part E:	0.00	
PART: F	FIRE FIGHTING					
879	Supplying, installation, testing and commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required : (a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. (b) Suitable HP Squirrel cage induction motor, TEFC,synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply 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. 1620 lpm at 75 m Head.	Set	1		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
880	<p>Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Diesel Driven Pump) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required. M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. 1620 lpm at 75 m Head</p>	Set	1		0.00	
881	<p>Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520. Suitable HP squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325. M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. 180 lpm at 75 m Head</p>	Set	1		0.00	

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882	<p>Fabrication, supply, 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 as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :</p> <p>Incomings Two nos. 250A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-250 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 1000Amps Outgoings (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)</p> <p>Main Fire Pump 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. - 1 sets</p> <p>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</p>	Set	1		0.00	
883	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flang	Metre	20		0.00	
884	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flang	Metre	10		0.00	
885	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flang	Metre	10		0.00	
886	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	30		0.00	
887	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	180		0.00	
888	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	80		0.00	
889	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	75		0.00	
890	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	80		0.00	
891	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	80		0.00	
892	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	120		0.00	
893	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	150		0.00	
894	Providing, laying, testing & commissioning of 'C' classheavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like	Metre	630		0.00	
895	Supplying and fixing single headed internal hydrant valve with instantaneous 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 : Single headed Stainless steel	Each	8		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
896	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete wi	Each	10		0.00	
897	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete wi	Each	5		0.00	
898	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete wi	Each	10		0.00	
899	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete wi	Each	2		0.00	
900	Supplying, fixing, testing & commissioning of double flanged sluice valve of rating PN 1.6 with non rising spindle, bronze/gun metal sea	Each	2		0.00	
901	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between fl	Each	5		0.00	
902	Providing, installation, testing and commissioning of non-return valve of following sizes conforming to IS: 5312 complete with rubber ga	Each	3		0.00	
903	Providing, installation, testing and commissioning of non-return valve of following sizes conforming to IS: 5312 complete with rubber ga	Each	1		0.00	
904	Providing, installation, testing and commissioning of non-return valve of following sizes conforming to IS: 5312 complete with rubber ga	Each	1		0.00	
905	Providing, installation, testing and commissioning of non-return valve of following sizes conforming to IS: 5312 complete with rubber ga	Each	1		0.00	
906	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304.	Each	2		0.00	
907	Providing and Fixing of gunmetal valve of following sizes as required. a)50mm nominal bore.	Each	1		0.00	
908	Providing and Fixing of gunmetal valve of following sizes as required. b)25 mm nominal bore	Each	8		0.00	
909	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required : Stainless Steel (Grade 304)	Each	16		0.00	
910	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. a) 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 b) 20 mm nominal internal dia gun metal globe valve & nozzle. c) Drum and brackets for fixing the equipments on wall. d) Connections from riser with 25 mm dia stop gun metal valve & M.S. Pine and socket.	Each	8		0.00	
911	Supplying & fixing 63 mm dia short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for ins	Each	8		0.00	
912	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : 2 way-100 mm dia M.S. Pipe	Each	2		0.00	
913	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : 4 way-150 mm dia M.S. Pipe	Each	1		0.00	
914	Providing, fixing, testing and commissioning one number fire brigade suction hose coupling (fire brigade with draw out connection) et	Each	1		0.00	
915	Supplying and fixing air vessel made of 450 mm dia, 8 mm thick MS sheet, 2000 mm in height with air release valve on top and flanged	Each	1		0.00	
916	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : Pendent/upright Sprinkler	Each	290		0.00	
917	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : Side Wall Sprinkler	Each	15		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
918	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required. 50 mm to 100 mm dia	Each	1		0.00	
919	Providing and Fixing 25mm dia inspection and testing assembly with Gun Metal isolation valve, Gun Metal sight glass by-pass valve an	Each	1		0.00	
920	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer	Each	15		0.00	
921	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer	Each	5		0.00	
922	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer	Each	5		0.00	
923	Providing, installation testing and commissioning of adjustable rosset plate for 15mm dia in white finish UL listed or FM approved comp	Each	25		0.00	
924	Providing and Fixing addressable monitor module with flow switch to monitor the water flow in sprinkler system, operating on loope	Each	1		0.00	
925	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of wate	Each	1		0.00	
926	Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required	Each	12		0.00	
927	Providing and Fixing of standard fireman's axe as per IS:926 with heavy duty insulated rubber handle.	Each	8		0.00	
928	Providing and Fixing 25mm dia. gunmetal air release valve PN 1.6 with all fittings and forged ball valve on header complete as require	Each	2		0.00	
929	Providing and Fixing reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges)	Each	4		0.00	
930	Providing and Fixing reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges)	Each	2		0.00	
931	Providing and Fixing reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges)	Each	2		0.00	
932	Providing and Fixing ISI marked portable type fire extinguishers of CO2 type 4.5 kg capacity as per IS- 15683 complete as per specifica	Each	15		0.00	
933	Providing and Fixing ISI marked portable type fire extinguishers of 22.5 kg capacity CO2 type cylindrical shape fire extinguisher (Troll	Each	1		0.00	
934	Providing and Fixing ISI marked portable type fire extinguishers of 6 Kg capacity ABC Dry Powder type as per IS- 15683 complete as p	Each	15		0.00	
935	Providing and Fixing ISI marked portable type fire extinguishers of 9 Kg capacity water type as per IS- 15683 complete as per specific	Each	15		0.00	
936	Providing and Fixing of Mechanical Foam typ 50 Liters Capacity cylindrical shape fire extinguisher with gas cartridge, hose, trolley an	Each	1		0.00	
937	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	Each	3		0.00	
938	Providing and Fixing of 3 Nos. G.I. sand buckets painted "Red Color" complete with G.I. stand duly painted "Red Color" of suitable size	Set	4		0.00	
939	Providing & fixing angle iron (40mmx 40 mm x 5mm) door frame and M.S Sheet (2 mm. thick) cum glass shutter of size 2.1 mtr.x1.2mtr.	Each	8		0.00	
940	Providing & fixing M.S. structural work fabricated from standard section e.g. M.S rounds, angles, channels, plates including cutting to s	Kg	1000		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
941	Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	1		0.00	
942	Providing and fixing heavy duty copper armored cables 1.1 KVA grade including necessary support clamps at ceiling level and connection legs and double compression glands,complete in all respects. Control cable 6 core 1.5 Sq.mm	Metre	50		0.00	
943	Providing and fixing heavy duty copper armored cables 1.1 KVA grade including necessary support clamps at ceiling level and connectio	Metre	30		0.00	
944	Providing and fixing heavy duty copper armored cables 1.1 KVA grade including necessary support clamps at ceiling level and connectio	Metre	50		0.00	
945	Providing and fixing heavy duty Aluminum armored cables 1.1 KVA grade including necessary support clamps at ceiling level, connectio	Metre	40		0.00	
946	Providing and fixing heavy duty Aluminum armored cables 1.1 KVA grade including necessary support clamps at ceiling level, connectio	Metre	35		0.00	
947	Providing and fixing heavy duty Aluminum armored cables 1.1 KVA grade including necessary support clamps at ceiling level, connectio	Metre	50		0.00	
948	Providing and fixing heavy duty Aluminum armored cables 1.1 KVA grade including necessary support clamps at ceiling level, connectio	Metre	50		0.00	
949	Providing and fixing 6 SWG dia G.I. wire on surface or in recess Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	Metre	30		0.00	
950	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	30		0.00	
951	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	30		0.00	
952	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Each	2		0.00	
953	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 300mm x50mmx1.60mm trays	Metre	50		0.00	
954	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 150mmx50mmx1.60mm trays	Metre	50		0.00	
955	Providing and laying reinforced cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 20mm nominal size) for anchor/th	cum	5		0.00	
				Sub Total of Part F:	0.00	
PART: G	WTP, STP & WB					

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
956	Filter Feed and water body feeding pump at Water treatment plant Supply, Installation, Testing and Comissioning In-line Horizontal/vertical multistage centrifugal pump set (for clear water) SS-304 casing, SS-304 impeller, SS-304 shaft, CI base with coating, complete directly coupled with TEFC induction motor of class "F" insulation & efficiency class IE-3, 2900 RPM, suitable for operation on 415 volts ±10%, 3 phase, 50 Hz, A.C. supply, mechanical seal, pressure gauges with gunmetal isolation cocks, vibration elimination pads etc. mounted on a MS base frame bolted to cement concrete foundation etc. complete in all respects and as per technical specification for following capacities: No. of Pumps : 2(1W + 1S) Capacity : (25 m3/hr) of Each Pump Head : 25-30 m Note:-1 set consists of 2 nos. of pumps (1Working + 1Standby)	Set	2		0.00	
957	Water Transfer Pump to STP from WTP (in case of emergency) Supply, Installation, Testing and Comissioning In-line Horizontal/vertical multistage centrifugal pump set (for clear water) SS-304 casing, SS-304 impeller, SS-304 shaft, CI base with coating, complete directly coupled with TEFC induction motor of class "F" insulation & efficiency class IE-3, 2900 RPM, suitable for operation on 415 volts ±10%, 3 phase, 50 Hz, A.C. supply, mechanical seal, pressure gauges with gunmetal isolation cocks, vibration elimination pads etc. mounted on a MS base frame bolted to cement concrete foundation etc. complete in all respects and as per technical specification for following capacities: No. of Pumps : 2(1W + 1S) Capacity : (6 m3/hr) of Each Pump Head : 25-30 m Note:-1 set consists of 2 nos. of pumps (1Working + 1Standby)	Set	1		0.00	
958	Dual media Filter at Water treatment plant Supply, Installation, Testing and Commissioning of vertical Dual media Pressure Sand Filter (comprising of minimum 750mm media in four graded layer and minimum Height on Straight 1500mm) fabricated from high performance M.S plate of minimum 8 mm				0.00	
959	thick for shell & 10mm thick for dished ends.(Quality of Steel as per IS:2062 Grade B).Tested to 5.0 Kg/m ² . internally treated with coal-tar epoxy, air scouring, collection system initial charge of media, M.S face piping with necessary flanges, gaskets, isolating valves, accessories, nuts & bolts, external painting with 2 coats of red oxide primer and enamel paint etc. with suitable foundation bolts & other accessories, mounting frame, complete as required & as per technical specifications of the following capacities: Discharge : 25 m ³ /Hour Each Filtration Rate : 15000 lit./m ² /h Dia. : 1500 mm HOS - 1500 mm minimum	Each	2		0.00	
	Water Softener at Water treatment plant Supply, Installation, Testing and Commissioning 'Cation' 'Anion' exchange process water softener fabricated from minimum 8 mm thick M.S. plate on min. shell and 10 mm thick M.S. plate on dished ends (Quality of Steel as per IS:2062 Grade B) complete with initial charge of filter media and resins, face piping accessories, diaphragm valves of approved specifications, HDPE Brine tank of				0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
960	<p>min. 2000 Liters with mixing arrangement, piping testing and commissioning complete with resins of approved quality and make and regeneration assembly complete with valves, ejector, brine suction valves and piping. All internal parts of the softener shall be rubber lined Complete as required as per technical specifications. Minimum expected rate of flow: (25m³/hr) Total soft water to be produced between two regenerations: .200 Cu.m Expected raw water hardness : app. 500 ppm (Contractor check water test report before installation). Expected treated water hardness: less than 5 ppm (Zero Commercial Hardness) Max. working pressure : 3 Kg/cm²</p>	Each	1		0.00	
961	<p>Chlorinator at Water treatment plant Providing, fixing, testing & commissioning of Chlorine dosing pump with 100 lits. HDPE/ FRP solution tank, injection fitting assembly, suction and delivery hose upto the point of injection, capacity 2.5 ml/hr to 7.5 l/h at 3 kg/sq.cm injection pressure, complete in all respects for treated water tank. Dosing pump shall be with powerful variable-speed stepper motor with internal stoke speed control and the turndown ratio of pump shall not below 1:3000. Accuracy of repeatability shall be +/- 1%. Pump shall be compatible to handle the liquid temperature range between -10 °C to 45°C. (Make Grundfos)</p>	Set	2		0.00	
962	<p>(Hydropneumatic Pumping System With Variable Frequency Drive) Domestic Water Supply Pumps Supply, Installation, Testing and Commissioning of compact packaged type skid mounted, self contained variable frequency drive hydropneumatic system complete as per the technical specification complete as required:-</p> <p>(i) In-line vertical multistage centrifugal water pump set (for clear water) with SS-304 casing, SS-304 impeller with SS-304 shaft, CI base with coating complete directly coupled with TEFC induction motor of class "F" insulation & efficiency class IE-3, 2900rpm, suitable for operation on 415 Volts ±10%, 3 phase, 50 Hz A.C. supply. The entire system shall be mounted on a common base frame i/c common suction and common delivery of G.I heavy class pipe headers with flanges, interconnecting piping with all required Control Valves, Non-return valves, pressure gauge with isolation cock etc. complete as required.</p> <p>(ii) Pressure vessel of non corrosive FRP composite construction lined with NSF and/or FDA listed material, like high density polyethylene with fully replaceable polyurethane. Air cell burst pressure of minimum of 3 times the vessel operating pressure and prototype cycle tested for 80,000 cycles with charging connections to discharge pipe line with necessary flanges, gaskets, isolating valve, nuts/ bolts etc. with suitable foundation bolts etc complete as required.</p> <p>(iii) Microprocessor based multi pump controller/panel with graphical display and variable frequency drive (VFD) mounted inside a panel complete with pressure sensor transmitter. The graphical display capable to show number of pumps running & also communicate with other controllers following with open protocol through RS485 port. System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. The panel should also have</p>	Set	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
963	(Hydropneumatic Pumping System With Variable Frequency Drive) Flushing and Garden Water Supply Pumps Supply, Installation, Testing and Commissioning of compact packaged type skid mounted, self contained variable frequency drive hydropneumatic system complete as per the technical specification complete as required:- (i) In- line vertical multistage centrifugal water pump set (for clear water) with SS-304 casing, SS-304 impeller with SS-304 shaft ,CI base with coating complete directly coupled with TEFC induction motor of class "F" insulation & efficiency class IE-3, 2900rpm, suitable for operation on 415 Volts ±10%, 3 phase, 50 Hz A.C. supply. The entire system shall be mounted on a common base frame i/c common suction and common delivery of G.I heavy class pipe headers with flanges, interconnecting piping with all required Control Valves, Non-return valves, pressure gauge with isolation cock etc. complete as required. (ii) Pressure vessel of non corrosive FRP composite construction lined with NSF and/or FDA listed material, like high density polyethylene with fully replaceable polyurethane. Air cell burst pressure of minimum of 3 times the vessel operating pressure and prototype cycle tested for 80,000 cycles with charging connections to discharge pipe line with necessary flanges, gaskets, isolating valve, nuts/ bolts etc. with suitable foundation bolts etc complete as required. (iii) Microprocessor based multi pump controller/panel with graphical display and variable frequency drive (VFD) mounted inside a panel complete with pressure sensor transmitter. The graphical display capable to show number of pumps running & also communicate with other controllers following with open protocol through RS485 port. System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. The panel should also have	Set	2		0.00	
964	(Hydropneumatic Pumping System With Variable Frequency Drive) Soft Water Supply Pumps Supply, Installation, Testing and Commissioning of compact packaged type skid mounted, self contained variable frequency drive hydropneumatic system complete as per the technical specification complete as required:- (i) In- line vertical multistage centrifugal water pump set (for clear water) with SS-304 casing, SS-304 impeller with SS-304 shaft ,CI base with coating complete directly coupled with TEFC induction motor of class "F" insulation & efficiency class IE-3, 2900rpm, suitable for operation on 415 Volts ±10%, 3 phase, 50 Hz A.C. supply. The entire system shall be mounted on a common base frame i/c common suction and common delivery of G.I heavy class pipe headers with flanges, interconnecting piping with all required Control Valves, Non-return valves, pressure gauge with isolation cock etc. complete as required. (ii) Pressure vessel of non corrosive FRP composite construction lined with NSF and/or FDA listed material, like high density polyethylene with fully replaceable polyurethane. Air cell burst pressure of minimum of 3 times the vessel operating pressure and prototype cycle tested for 80,000 cycles with charging connections to discharge pipe line with necessary flanges, gaskets, isolating valve, nuts/ bolts etc. with suitable foundation bolts etc complete as required. (iii) Microprocessor based multi pump controller/panel with graphical display and variable frequency drive (VFD) mounted inside a panel complete with pressure sensor transmitter. The graphical display capable to show number of pumps running & also communicate with other controllers following with open protocol through RS485 port. System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. The panel should also have	Set	1		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
965	<p>Drainage/Sewerage Sump Pump for Plant room Supply, installation, testing and commissioning compact monoblock dry motor sump pumps of suitable rating, with non-clog free flow open impeller, solid handling capacity at least 28mm suitable for operation on 415 volts +10% , 3 Phase, 50Hz, A.C supply, speed 2900 RPM including oil chamber, guide wire for lifting & lowering of pump, G.I. galvanized lifting chain, complete. The above pump sets must be supplied complete with following accessories. GI Piping of 80mm dia for individual pump delivery line and 100mm dia for common delivery line, to be terminated outside the sump. 80mm dia Butterfly valve.-- 2 Nos 80 mm dia reflux valve.-- 2 Nos Electrical switch panel with DOL starter having all necessary accessories & safety devices of standard specifications. Automatic built-up water level controller with necessary length of cable upto control panel. No. of Pumps/set : 2nos. (1 W + 1 S) Discharge - 300 LPM Each Head - 15 Meters</p>	Set	4		0.00	
966	<p>Borewell Submersible pump Supply installation testing and commissioning of borewell submersible pump for suitable rating, chrome steel shaft, suitable for operation on 415 volt ±10%, 3 phase, 50 Hz A.C. supply, speed 2900 RPM, including necessary submersible cable of 2Rx3x6 Sq. m. size, outdoor type M.S. control panel and all other accessories required to make it completely functional as per the technical specifications: Discharge: Approx. (10 m3/hr) Recommended Head : 80 m minimum or as per requirements Control Panel - 1 Nos, STAR DELTA starter of required rating (M.S. Fabricated in pattern)</p>	Each	2		0.00	
967	<p>Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 32 mm dia</p>	Metre	10		0.00	
968	<p>Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 40 mm dia</p>	Metre	10		0.00	
969	<p>Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 50 mm dia</p>	Metre	20		0.00	
970	<p>Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 65mm dia</p>	Metre	20		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
971	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 80mm dia	Metre	30		0.00	
972	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 100mm dia	Metre	80		0.00	
973	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to 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 : 150mm dia	Metre	10		0.00	
974	Supply, installation, testing and commissioning reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges) suitable for upto 20 kg/cm2 pressure,complete as per specifications as required. 40 mm dia	Each	4		0.00	
975	Supply, installation, testing and commissioning reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges) suitable for upto 20 kg/cm2 pressure,complete as per specifications as required. 50mm dia	Each	4		0.00	
976	Supply, installation, testing and commissioning reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges) suitable for upto 20 kg/cm2 pressure,complete as per specifications as required. 65mm dia	Each	2		0.00	
977	Supply, installation, testing and commissioning reinforced neoprene rubber vibration eliminators/expansion joints (to provide relief from stresses at pipe flanges) suitable for upto 20 kg/cm2 pressure,complete as per specifications as required. 80mm dia	Each	4		0.00	
978	Providing, installation, testing and commissioning of Cast Iron Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 50 mm dia	Each	1		0.00	
979	Providing, installation, testing and commissioning of Cast Iron Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 65mm dia	Each	1		0.00	
980	Providing, installation, testing and commissioning of Cast Iron Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 80mm dia	Each	1		0.00	
981	Providing, installation, testing and commissioning of Cast Iron Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 100mm dia	Each	1		0.00	
982	Providing, installation, testing and commissioning of Cast Iron Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 150mm dia	Each	1		0.00	
983	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 50mm dia	Each	5		0.00	
984	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 65mm dia	Each	4		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
985	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 80mm dia	Each	5		0.00	
986	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 100mm dia	Each	14		0.00	
987	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 150mm dia	Each	3		0.00	
988	Providing and fixing 40 mm dia gun metal gate valve with C.I. wheel of approved quality (screwed end) :	Each	4		0.00	
989	Providing, installation, testing and commissioning of non-return valve of following sizes complete with rubber gasket, GI bolts, nuts, washers etc.as required : 50mm dia	Each	2		0.00	
990	Providing, installation, testing and commissioning of non-return valve of following sizes complete with rubber gasket, GI bolts, nuts, washers etc.as required : 65mm dia	Each	2		0.00	
991	Providing, installation, testing and commissioning of non-return valve of following sizes complete with rubber gasket, GI bolts, nuts, washers etc.as required : 80mm dia	Each	2		0.00	
992	Providing, installation, testing and commissioning of non-return valve of following sizes complete with rubber gasket, GI bolts, nuts, washers etc.as required : 100mm dia	Each	2		0.00	
993	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 32 mm dia	Each	4		0.00	
994	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 40 mm dia	Each	6		0.00	
995	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 50 mm dia	Each	4		0.00	
996	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 65 mm dia	Each	5		0.00	
997	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 80mm dia	Each	6		0.00	

SI. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder IN INR	TOTAL AMOUNT IN Figures	TOTAL AMOUNT In Words
NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
998	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 100mm dia	Each	15		0.00	
999	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 150mm dia	Each	4		0.00	
1000	Supply, installation, testing and commissioning of 750 mm long hot dipped G.I. Puddle flanges for water tanks as per I.S. 1239 (Class C) with 6mm thick M.S. Plate of suitable size and welded around the pipe fixed in walls, beams and top slab of R.C.C tanks, complete with all details in all respects and as per drawing and specifications. 200 mm dia	Each	2		0.00	
1001	Supply, installation, testing and commissioning of double flanged Water Flow Meter complete with digital display provision & including Pulse generator and Remote Totalizer complete in all respect as per the technical specifications. 50 mm dia	Each	1		0.00	
1002	Supply, installation, testing and commissioning of double flanged Water Flow Meter complete with digital display provision & including Pulse generator and Remote Totalizer complete in all respect as per the technical specifications. 65 mm dia	Each	4		0.00	
1003	Supply, installation, testing and commissioning of double flanged Water Flow Meter complete with digital display provision & including Pulse generator and Remote Totalizer complete in all respect as per the technical specifications. 80 mm dia	Each	4		0.00	
1004	Supply, installation, testing and commissioning of double flanged Water Flow Meter complete with digital display provision & including Pulse generator and Remote Totalizer complete in all respect as per the technical specifications. 100 mm dia	Each	100		0.00	
1005	Providing ,fixing , testing and commissioning of IP 67 (Weather Proof /Aluminium casing with positoner to indicate the valve position with key type manual overdrive) Motorized Butterfly valve for filling of water tank complete with high and low level float type sensors to control the valve .The sensors shall be installed in water tanks.The sensors will close the valve when water level is high in tank and open the valve when water tank level is low . The system should be complete in all respects with control panel indicating the position of valve i.e open /closed with accessories like wiring /conducting /flanges, nut bolts etc complete as per approved type and specifications as per instructions of the engineer - in - charge. 80 mm dia	Each	1		0.00	
1006	Supply, installation, testing and commissioning of insect-proof coupling, to vent pipes of water tank with threaded or flanged joints, including G.I. flanges, nuts, bolts, 3mm thick rubber insertions complete as per technical specifications. 80 mm dia	Each	15		0.00	
1007	Providing & fixing M.S. structural work fabricated from standard section e.g. M.S Flat Strips, Round Bars, angles, channels, plates etc., i	Kg	500		0.00	

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NUMBER	TEXT	TEXT	NUMBER	NUMBER	NUMBER	TEXT
1008	Providing and fixing M.S. grating and preferably in 600mm long pieces, fabricated with 16x16mm square bars, @ 20mm clear spacing and welded to angle iron 25x25x5mm and placed firmly on angle iron frame of 30x30x5mm with 25x3mm hold fasts approximately 75mm long welded at intervals of 500mm including two or more coats of synthetic enamel paint of approved quality and shade over one coats of primer and set in cement mortar 1:3 (1 cement : 3 coarse sand) complete as per attached details for drain.	kg	1500		0.00	
1009	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	100		0.00	
1010	Providing and Fixiing heavy duty, water tight double sealed Ductile iron Circular Manhole cover and frames specially casted for placing over the UG Water tanks with lifting and locking arrangements as per approved sample, complete in all respect including fixing in PCC as per site Requirement.	Kg	1800		0.00	
1011	Electrical panel at Water treatment plant for Phase-I Equipments Design, manufacture, supply, installation, testing and commissioning of the Plumbing panel, front operated, cubicle construction, Floor mounted type, fabricated out of 16 swg thick CRCA Sheet, Compartmentalized with hinged lockable doors, dust and vermin proof, Powder coated of approved shade, Cable alley, inter-connections, having Switch gear and accessories mounting, internal wiring, earth terminals, Top/ Bottom cable entry, numberings etc. suitable for operation of 415 volts, 3 phase, 50 Hz, AC Supply with enclosure protection class IP 54 complete as required and as specified with the following: Each Incomer shall consist of : INCOMER - 250 Amps, Four pole, 11 KA MCCB with rotary handle on door. Voltmeter (0-500 Volts) with selector Switch & protected by MCB's. Ammeter (0-200 Amps) with selector Switch & CT's etc. Set of (R,Y,B) LED phase and ON & OFF indication Lamps. BUSBAR 1 Set 11KV, 300 Amps Three Phase busbars of aluminium with Rear cable termination. OUT GOING FOR :- Filter feed pumps (2 Nos. Pump - 1 set) Pump feeder shall consist of : Suitable rating MPCB with DOL Starter for outgoing feeder of 5 HP. Each Compartment shall contain Auto/Manual Selector Switch and Indicating Lamp for ON/TRIP Status of Motor--2 Nos Ammeter (0-100 Amps) with selector Switch & CT's etc. Set of ON / OFF LED indication Lamps protected by MCB. Water Transfer pumps to STP (2 Nos. Pump - 1 set) Pump feeder shall consist of : Suitable rating MPCB with DOL Starter for outgoing feeder of 3 HP. Each Compartment shall contain Auto/Manual Selector Switch and Indicating Lamp for ON/TRIP Status of Motor--2 Nos Ammeter (0-100 Amps) with selector Switch & CT's etc. Set of ON / OFF LED indication Lamps protected by MCB. Domestic Potable Water Supply hydropneumatic pumps set (1w+1s) pumps 10 Amps. TP with neutral link MCCB (Motor Duty) 1.1 KA with rotary handle on door suitable for 3 HP. and for Connection to Built in Hydro	Set	1		0.00	

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1012	Pump motor controller cum water level indicating panel at Water treatment plant . Supply, installation, testing and commissioning of Centralised PLC control panel front operated, cubicle construction, wall mounted type, fabricated out of 1.6 mm thick CRCA Sheet, with hinged lockable doors, dust and vermin proof, powder coated of approved shade, inter-connections, having, internal wiring, earth terminals, Top / Bottom control cable entry, numberings etc.comprises of touch-screen display board (Min.Diag. size 8") along with all accessories for complete Programmable logical controls & indications,having necessary interlocks. Inputs/Outputs, required number of repeater amplifiers, all audio-visual alarms as per the requirements listed below i/c emergency stop push button on the panel etc. The panel shall have BMS compatible Modbus protocol complete as required and as specified. Water level indicators and controllers : The hydrostatic pressure sensor (Water level indicator) is working on hydrostatic pressure measurement principle made of Stainless Steel for installation in storage tanks, and capable of providing 4 to 20 mA analog signal compatible with PLC signal. inputs and all control outputs to MCC panel (Plumbing/Water supply),complete as per working requirements for equipment detailed below. Fire Static Underground tanks- 2 No. Real-Time water level indication monitoring. Low Level audio-visual alarm at less than 30% total capacity. Raw Water Underground tanks- 1 No.Real-Time water level indication monitoring . Low Level audio-visual alarm at less than 30% total capacity.High Level audio-visual alarm at more than 100% total capacity. Auto cut-out of raw water pumps at 95 % capacity of domestic tank . Auto cut-in of raw water pumps at 25 % capacity of domestic tank. Auto cut- out of filter feed pumps at 10% capacity of raw water tank . Domestic Water Underground tanks- 1 No. Real-Time water level indication monitoring. Low Level audio-visual alarm at less than 30% total capacity. High Level audio-visual alarm at	Set	1		0.00	
1013	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required. 100 mm width X 50 mm depth X 1.6 mm thickness	Meter	50		0.00	
1014	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required. 150 mm width X 50 mm depth X 1.6 mm thickness	Meter	30		0.00	
1015	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required. 200 mm width X 50 mm depth X 1.6 mm thickness	Meter	10		0.00	
1016	Providing and Laying of ISI Marked multicore PVC insulated and PVC sheathed copper conductor armoured control cable of 1.1 KV grade conforming to IS 1554 (Part-1) as ammended upto date and as specified of following sizes. including necessary support clamps at ceiling level and connection legs complete in all respects as per directions of the engineer-in-charge. 2 core 1.5 Sq.mm	Meter	50		0.00	

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1017	Providing and Laying of following sizes of 1.1KV grade XLPE insulated and PVC sheathed copper conductor armoured stranded power cables conforming to IS 1554 (Part-1) & (7098 Part-1) as ammended upto date and as specified, including necessary support clamps at ceiling level, connection lugs and double compression glands, complete in all respects as per directions of the engineer-in-charge. 3 core 2.5 Sq.mm	Meter	100		0.00	
1018	Providing and Laying of following sizes of 1.1KV grade XLPE insulated and PVC sheathed copper conductor armoured stranded power cables conforming to IS 1554 (Part-1) & (7098 Part-1) as ammended upto date and as specified, including necessary support clamps at ceiling level, connection lugs and double compression glands, complete in all respects as per directions of the engineer-in-charge. 3 core 4 Sq.mm	Meter	50		0.00	
1019	Providing and Laying of following sizes of 1.1KV grade XLPE insulated and PVC sheathed copper conductor armoured stranded power cables conforming to IS 1554 (Part-1) & (7098 Part-1) as ammended upto date and as specified, including necessary support clamps at ceiling level, connection lugs and double compression glands, complete in all respects as per directions of the engineer-in-charge. 3 core 6 Sq.mm	Meter	50		0.00	
1020	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	2		0.00	
1021	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	50		0.00	
1022	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	50		0.00	
1023	Providing & Fixing of electric insulated rubber mat non-skid type with grooved top size 1m x 2m and 12 mm thick as per IS : 5424 as required suitable for 1100 volts complete as per directions of the engineer-in-charge.	Each	6		0.00	
1024	Supply,Installation,testing & commissioning of 20 KLD Sewage Treatment plant 5 mm thick plate and 6 mm bottom plate with MS FRP Bar Screen and Oil and Grease chamber with Equalization Tank, Anoxic tank with agitator, Aeration tank, Settling and Filter feed tanks, treated water tank, UF permeate tank and sludge holding tank with walkway platform as required with bar screen, 2 nos of submersible type Sewage transfer pumps(W+S), 2 nos of Sludge Return Pumps (W+S), 2 nos of Filter feed pump (W+S), 2 Nos of Trilobe Air Blower with Motor (W+S) , FRP Pressure Sand Filter and FRP Activated Carbon Filter with respective Filter Media with multiport valve,1 set of MBBR Media and Tube settler media to be filled in the Aeration tank and Settling tank, coarse and fine diffusers, 2 nos of Dosing pump and 2 nos of Dosing tank, 2 no. filter press feed pump screw type and filter press, UF system 1 no of MS Powder coated standard Electrical double door Control panel, 2 nos of Electromagnetic flow meter, 1 no. of pH meter, pressure gauge, lvl controller, 1 no of MS Skid base for mounting all the Equipments with all Necessary pipings and fittings and electrical panel,electrical cables etc. complete all required for successfull commissioning. If any items is not considered in above item and required for successfull commissioning then contractor shall be considered in this price. (Nothing extra shall be paid).	SET	1		0.00	

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1025	Supply installation of testing and commissioning of water Body equipments filter,pumps,Filter 10micron ,28m3/hr,pump set1.5hp single phase,1working 1standby as required, skimmer,standard underwater light of 20watts and 10 watts surface mounted lights,deckbox for light cabil junction,starter,floor inlets,abs main drain,wall brust,2.4-4.8m telesopic pole,deluxe large Vac head(alu body,plastic handle)extruded EVA dia 38mm -15 mtr,algae brush,hand skimmer,test kit for residual chlorine & ph ,pipes,butterfly valves etc for full operation of Water Body	Set	1		0.00	
				Sub Total of Part G:	0	
PART: H Operation and Maintenance (O&M)						
1026	Operation & Maintenance (O&M) for 2 Years shall be paid FIX @ 4% of the total Contract Value excluding Provisional Sum. It includes 2 years OEM warranty on all hardware procured by the bidder on their own level. Its also includes all kind of service activities those are required for building operational & function properly. Refer particular requirements of tender.	LS	1		0.00	
				Sub Total of Part H:	0	
1027	Provision of Provisional sum to be used as tender document (fixed) : INR 5,00,000,00. Bidder should fill amount INR 5,00,000,00.	LOT	1	5,00,00,000	5,00,00,000	
				Grand Total	5,00,00,000	