

VOLUME 3

PRICE BID

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PART 1 SECTION A

CIVIL AND STRUCTURAL WORKS

PRICE BID FOR CIVIL & STRUCTURAL WORKS					PART 1 SECTION A	
SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
	EARTH WORK					
1	Earth work in excavation by mechanical means(Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5 m width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5m, including dewatering, getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50m.					
	All kinds of soil					
a	up to 1.5 m depth	CUM	140			
b	1.5m to 3m depth	CUM	20			
2	Filling available excavated earth(excluding rock) in trenches, plinth, sides of foundations,etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50m and lift up to 1.5 m	CUM	106			
	Extra for every additional lift of 1.5m or part thereof in: All kinds of soil					
a	1.5m to 3m depth	CUM	8			
3	Supply and filling in plinth with earth brought from outside under floors including watering, ramming, consolidating and dressing complete	CUM	104			
4	Clearing jungle including uprooting of rank vegetation ,grass, brush wood trees and saplings of girth up to 30 cm measured at a height of 1m above ground level and removal of rubbish up to a distance of 50m outside the periphery of the area cleared	SQM	100			
5	Carting away surplus excavated earth, unserviceable materials, rubbish etc.,from site to unobjectionable place, including loading and unloading up to 5 Km	CUM	200			
	PLAIN CEMENT CONCRETE					
6	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work up to plinth level:					
a	1:4:8 (1Cement:4 coarse sand:8 graded stone aggregate 40mm nominal size)	CUM	38			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
7	Providing and laying damp-proof course 50mm thick with cement concrete, 1:2:4 (1 cement: 2 coarse sand:4 graded stone aggregate 20mm nominal size)	SQM	14			
8	Providing and laying in position cement concrete in coping ,window cills, etc. of specified grade, up to floor V level, excluding the cost of centring, shuttering and finishing					
a	1:2:4 (1cement:2coarse sand:4graded stone aggregate ,20mm nominal size)	CUM	42			
9	Making plinth protection 75mm thick of cement concrete 1:3:6 (1cement:3 coarse sand :6graded stone aggregate 20mm nominal size) over 75mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth	SQM	30			
REINFORCED CEMENT CONCRETE						
10	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centring, shuttering, finishing and reinforcement - All work up to plinth level					
a	with 1:1.5:3 (1cement:1.5 coarse sans :3 graded stone aggregate 20mm nominal size)	CUM	12			
11	Reinforced cement work in walls (any thickness),including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars piers, abutments, posts and struts etc.,upto floor five level excluding cost of centring,shuttering,finishing and reinforcement:					
a	With 1:1.5:3 (1cement:1.5 coarse sans :3 graded stone aggregate 20mm nominal size)	CUM	10			
12	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of cantering, shuttering, finishing and reinforcement including admixtures in recommended proportions. (as per IS 9103) to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in - charge : M20 grade reinforced cement concrete.					
a	Columns	CUM	45			
b	Beams	CUM	90			
c	Roof Slab	CUM	180			
d	Lintel	CUM	7			
e	Stairs	CUM	10			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
13	Providing and laying Screed concrete,75-85mm thick over decking sheet of grade M20 , using graded stone aggregate of 20 mm and down size at all levels, of specified thickness, excluding the cost of reinforcement.	SQM	70			
14	Providing and fixing in position 12mm thick bitumen impregnated fibre board conforming to IS: 1838 including cost of primer, sealing compound in expansion joints	per cm depth per 100 m	50			
a	Providing and fixing in position 12mm thick Shalitek board conforming to IS standards including cost of primer, sealing compound in expansion joints	per cm depth per 100 m	Rate only			
15	Providing and fixing sheet covering over expansion joints with iron screws as per design to match the colour / shade of wall treatment					
a	Non asbestos fibre cement board 6mm thick as per IS: 14862, 150mm wide	RMT	20			
b	Non asbestos fibre cement board 6mm thick as per IS: 14862, 200mm wide	RMT	1			
16	Providing and applying Nito Bond EP of FOSROC make at the joints of new and old concrete as per Manufacturer's specification to get better bonding between old and new concrete surfaces.	SQM	10			
17	Providing and packing the gap between base plate and structural column with non shrink Grout,CON BEXTRA GP1 of FOSROC CHEMICALS as per drawing and manufacturer's specification.	CUM	1			
FORM WORK						
18	Centring and shuttering including strutting, propping etc. and removal of form for :Steel Shuttering					
a	Footing	SQM	25			
b	Columns	SQM	550			
c	Beams	SQM	725			
d	Slab	SQM	1,195			
e	Lintel	SQM	77			
f	Stairs(excluding landings) except spiral staircases	SQM	60			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
	STEEL REINFORCEMENT					
19	Reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete., for Thermo - Mechanically Treated bars					
a	Thermo - Mechanically Treated bars	KGS	46,500			
	BRICK MASONRY WORK					
20	Brickwork with FPS Bricks of class designation 50					
a	In super structure in cement mortar(1:6)	CUM	165			
	HALF BRICK MASONRY					
21	Half brick masonry with FPS bricks of class designation 50					
a	In super structure in cement mortar, 1:4	SQM	90			
	STONE MASONRY WORK					
22	Coursed rubble masonry second sort with hard stone in foundation and plinth with:					
a	Cement mortar 1:6 (1 cement : 6 coarse sand)	CUM	30			
23	Extra for coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and up to floor five level	CUM	15			
24	Pointing of the stone work with cement mortar 1:3(1cement: 3 fine sand)					
a	Flush/ Ruled pointing	SQM	25			
	DOORS & WINDOWS & PARTITIONS					
25	Providing and fixing Steel Doors 1mm thick MS sheet door with frame of 40x40x6mm angle iron and 3mm MS gusset plate at the junctions and the corners, all necessary fittings complete including applying a priming coat of approved steel primer Using flats 30x6mm for diagonal braces and central cross piece.	SQM	3			
26	Providing and fixing factory made PVC door frame of size 50x47 mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 nos of 150mm long brackets of 15x15 mm M.S square tube, the vertical door profiles to be reinforced with 19x19 mm M.S square tube of 19 guage,EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S screws of 65/100mm size complete as per manufacturers specification and direction of Engineer-in-Charge.					
a	50x47x5.0 mm thick PVC door frame	RMT	85			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
27	Providing and fixing to existing door frames,30mm thick factory made PVC door shutters consisting of frame made out of M.S tubes of 19 gauge thickness and size of 19x19 mm for styles and 15x15 mm for top and bottom rails. M.S frame shall have a coat of steel primers of approved make and manufacture, M.S frame covered with 5mm thick heat moulded PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20 mm shall be tapered in 45 degree angle on either side forming styles; and 5mm thick,95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on both the sides to form lock rail.Top,bottom and lock rail shall be provided either side of the panel.10mm(5mmx2) thick,20mm wide cross PVC sheet be provided as gap insert for top rail and bottom rail. Panelling of 5mm thick both side PVC sheet to be fitted in the M.S frame welded/sealed to the styles and rails with 7mm(5mm+2mm)thickx15mmwide PVC sheet beading on inner side and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of 'C' ch					
a	30mm thick shutter	SQM	25			
28	Providing and fixing powder coated aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS : 733 and IS : 1285, anodised transparent or dyed to required shade according to IS : 1868 (Minimum anodic coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/panelling, C.P brass/stainless steel screws, all complete as per architectural drawings and the directions of Engineer - in - charge (Glazing and panelling to be paid for separately.)					
a	For shutters of doors including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of PVC/neoprene gasket required (Fittings shall be paid for separately)	KG	125			
b	For windows & ventilators	KG	1,300			
c	For Frames of doors	KG	350			
d	For Partitions	KG	3,000			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
29	Providing and fixing ISI marked flush door shutters confirming to IS:2202(Part-1) non-decorative type, core of block board construction with frame of 1class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:					
a	30mm thick including ISI marked Stainless Steel butt hinges with necessary screws	SQM	10			
30	Providing and fixing 12mm thick pre-laminated three layer medium density (exterior grade) particle board grade I, Type II conforming to IS : 12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium doors, windows shutters and partition frames with C.P brass/stainless steel screws etc. complete as per architectural drawings and directions of Engineer - in - charge.					
a	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.	SQM	180			
31	Providing and fixing glazing in aluminium doors, windows, ventilators, shutters and partitions with PVC/neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in - charge (Cost of aluminium snap beading shall be paid in basic item)					
a	With glass panes of 5.50mm thickness (weight not less than 13.75kg/sqm) for doors	SQM	15			
b	With glass panes of 5.50mm thickness (weight not less than 13.75kg/sqm) for windows and ventilators	SQM	120			
c	With glass panes of 5.50mm thickness (weight not less than 13.75kg/sqm) for partitions	SQM	180			
32	Filling the gap in between aluminium frame and adjacent RCC/Brick/stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer in-charge complete					
a	Upton 5mm depth and 5 mm width	RMT	250			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
33	Steel work In gratings, window grills, frames, guard bar, ladders, brackets, gates & similar works welded in built up sections / framed work including cutting hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required	KG	600			
	STRUCTURAL GLAZING WORK					
34(a)	Supplying, fabricating and erecting structural glazing works with necessary frame works made of prepainted metals and glazing with 6mm thick clear annealed glass with structural silicon sealant (Dow coring 795 or equivalent) including weather silicon sealant etc, necessary fixing clips, anchor fasteners required for fixing the frames to wall or rack members complete, as per manufacturers specification and direction of Engineer-in-charge(The members provided has to be adequate to withstand the local wind velocity.)(Quantity of GF & FF taken together)	SQM	25			
34(b)	Providing & fixing of ACP cladding with neccessary aluminium frame works as per structural design. Cladding has to be designed for local wind pressure of 33m/sec. The joints has to be packed with water proof sealant of approved make. Contractor has to furnish the shop drawing to the consultatnt for approval. The neccessary scaffolding works required for the erection to be included in the quoted rates.	SQM	Rate Only			
	STEEL WORK					
35	Steel work welded in built up sections/framed work including cutting,hoisting,fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required					
a	In stringers,treads,landings,etc of staircases including use of chequered plate wherever required, all complete.	KG	2,750			
36	Structural steel work riveted ,bolted or welded in built up sections, trusses and framed work including cutting,hoisting,fixing in position and applying a priming coat of approved steel primer ,all complete	KG	6,000			
37	Providing, placing and fixing in position at all locations and heights with 1.00mm thick 123mm pitch, 52mm crest troughed type decking sheets(CRIL/ Japan Metals or equivalent) made out of cold rolled Galvanised steel for roof deck with all other accessories like bolts, washers, etc.,.Cost to include necessary laps as per IS codes and manufacturers specifications, all leads and lifts, staging if required etc.,including applying a priming coat of approved steel primer and two coats of anti corrosive paint as required. (Mode of measurement shall be the actual area).	SQM	75			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
38	Providing, fabricating and fixing MS Weld mesh of 12G with Eye 50x25 mm for decking slab concrete	SQM	75			
39	Providing and fixing M.S fan clamp type I of 16mm dia M.S bar bent to shape with hooked ends in R.C.C slabs during laying including painting the exposed portion of loop, all as per standard design complete.	NOS	30			
40	Providing and fixing handrail by welding,etc., to steel ladder railing, balcony railing and staircase railing including applying a priming coat of approved steel primer					
a	M.S Tube(medium),40mm nominal bore	KG	200			
41	Welding by electric plant including transportation plant at site etc.,complete as per the instruction of Engineer in charge. (Welding of new reinforcement rods to the existing reinforcements in the columns to make proper lap, rate inclusive preparation of reinforcement as per specification & IS code)	CM	31,500			
	FLOORING					
42	Providing and laying Ceramic glazed floor tiles in toilet area of size 300X300mm (thickness to be specified by the manufacturer) of first quality conforming to IS : 13755 of NITCO, ORIENT, SOMANY KAJARIA, or equivalent make in colours such as white, ivory, grey, fume red brown, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement and matching pigment etc., complete.	SQM	80			
43	Providing and laying vitrified floor tiles in office area of size 600mmX600mm of thickness not less than 10mm of M/s Johnson (Marbonite) or equivalent in light colours and shades, laid on 3mm thick cementations polymer based tile adhesive filling the joints with filler to match the colour of tiles complete as per direction of the Engineer - in - charge.	SQM	925			
44	Providing and fixing first quality wall cladding in toilet with ceramic glazed tiles conforming to IS : 13753 of minimum thickness 5mm of approved make like NITCO, ORIENT, SOMANY KAJARIA, or equivalent make in all colours, shades design and prints except burgundy, bottle green, black of any size as approved by Engineer - in - charge in skirting, risers of steps and dados over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with gray cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete	SQM	260			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
45	Providing and laying vitrified floor tiles for skirting in office area of size 150mmX600mm of thickness not less than 10mm of M/s Johnson (Marbonite) or equivalent in light colours and shades, laid on 3mm thick cementious polymer based tile adhesive filling the joints with filler to match the colour of tiles complete as per direction of the Engineer - in - charge.	RMT	265			
46	Providing and laying Marble stone flooring for staircase, with 18mm thick marble stone (sample of marble shall be approved by Engineer-in-charge) over 20mm (average) thick base of cement mortar 1:4(1cement:4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing complete with:					
	Raj Nagar plain	SQM	10			
47	Providing and laying 18mm thick Sadarahalli granite stone flooring for staircase (sample of stone shall be approved by Engineer-in-charge) over 20mm (average) thick base of cement mortar 1:4(1cement:4 coarse sand) laid and jointed with grey cement slurry etc. complete as per the instruction of engineer-in-charge.	SQM	100			
ROOFING						
48	Providing non-asbestos high impact Polypropylene reinforced cement 6mm thick corrugated sheets (as per IS:14871) roofing up to any pitch and fixing with polymer coated J or L hooks ,bolts and nuts 8mm dia GI plain and bitumen washers or with self drilling fastener and EPDM washers etc.complete excluding the cost of purlins, rafters and trusses, corrugated sheets and including cutting to size and shape wherever required	SQM	75			
49	Providing and fixing 15 cm wide 45 cm over all semi circular plain G.S sheet gutter with iron brackets 40X3 mm size,bolts,nuts and washers etc., including making necessary connections with rain water pipes complete					
	.80 mm thick with zinc coating not less than 275 gm /m ²	MTR	20			
50	Extra for straight cutting in non-asbestos polypropylene reinforced cement corrugated, semi corrugated 6 mm thick sheet roofing for making opening of area exceeding 40 square decimetre for chimney, stacks, skylight and similar types of works as per the instruction of engineer in charge.	SQM	5			
51	Providing & Fixing ridges and hips in non-asbestos fibre cement high impact polypropylene reinforced roofing with suitable fixing accessories or self drilling fastener and EPDM washer etc. complete as per the instruction of engineer in charge.					
a	Corrugated serrated adjustable ridges	MTR	30			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
52	Providing and fixing False Ceiling Tiles of approved materials of size 595X595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanised steel sections(galvanised @ 170 gms/sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24X 38 mm made from 0.30mm thick (minimum) sheet spaced at 1200mm centre to centre and cross "T" of size 24X25mm made of 0.30mm thick (minimum) sheet,1200mm long spaced between main"T" at 600mm centre to centre to form a grid of 1200X600 mm and secondary cross "T" of length 600mm and size 24X25mm made of 0.30mm thick(minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grids of 600X600mm and laying false ceiling tiles of approved texture in the grid including, wherever required, cutting/making opening for services like diffusers,grills,light fittings,fixtures,smoke detectors,etc.					
a	Main"T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6mm dia and 50mm long dash fasteners,4mm GI adjustable rods with galvanised level clips spaced at 1200m centre to centre along mainT,bottom exposed width of 24mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer-in-Charge (The rate is excluding cost of tiles which will be paid separately)	SQM	70			
53	Providing and fixing flat pressed 3 layer medium density particle board or graded particle board (Grade I) IS:3087 marked in ceiling with necessary nails etc.,complete (frame work to be paid separately)					
	12mm thick	SQM	70			
	PLASTERING AND PAINTING					
54	Ceiling Plaster:6mm cement plaster to ceiling of mix, 1:3	SQM	1,010			
55	External Plastering with 18mm cement plaster in two coats under layer 12mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6mm thick cement plaster 1:6 (1 cement : 6 fine sand)					
a	For height up to 10m,from ground level unless otherwise stated	SQM	1,020			
b	Extra for plastering exterior walls of height more than 10m from ground level for additional height of 3m or part thereof	SQM	30			
56	Internal Plastering with 12mm cement plaster finished with a floating coat of neat cement of mix 1:4 (1 cement : 4 fine sand) - Neeru finish	SQM	1,325			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
57	Finishing walls with water proofing cement paint "Snowcem Plus" of M/s Snowcem India Ltd., or equivalent of required shade on exterior walls					
a	New work (Two or more coats applied @ 3.84 kg/10 sqm)	SQM	1,050			
58	Providing and applying on exterior walls, granular finish of "Heritage" brand, with approved colour, as per manufacturer's specification, including preparing the surface, curing, scaffolding etc. as directed by Engineer in charge,	SQM	10			
59	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade on interior walls					
a	New work (two or more coats) over and including priming coat with cement primer.	SQM	1,325			
60	White washing with lime to give an even shade to ceilings					
a	New work (three or more coats)	SQM	1,010			
61	Painting with synthetic enamel paint on steel works of approved brand and manufacture to give an even shade					
a	Two or more coats on new works	SQM	75			
	DEMOLISHING AND DISMANTLING					
62	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 mts lead as per direction of Engineer-in-charge					
a	1:3:6 or richer mix	CUM	20			
63	Demolishing RCC work manually / by mechanical means including staking of steel bars and disposal of unserviceable material within 50 mts lead as per direction of Engineer-in-charge	CUM	25			
64	Demolishing Brick work including plastering, including staking of serviceable material and disposal of unserviceable material within 50 mts lead in Cement mortar	CUM	75			
65	Demolishing Brick tile covering in terrace ,including staking of serviceable material and disposal of unserviceable material within 50 mts lead	SQM	910			
66	Dismantling steel work in built up sections in angles,tees,flats and channels including all gusset plates, bolts,nuts,cutting rivets,welding,etc.including dismembering and stacking within 50 metres lead	KG	1,500			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
67	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in					
a	Channels,angles,tees and flats	KG	4,500			
68	Demolishing water proofing layer (avg of 150mm thick) on terrace including surkhi including staking of serviceable material and disposal of unserviceable material within 50 mts lead	SQM	910			
69	Dismantling Aluminium / Gypsum partitions,doors,windows,fixed glazing and false ceiling, including staking of serviceable material and disposal of unserviceable material within 50 mts lead as directed by Engineer-in-charge	SQM	50			
70	Dismantling Doors, windows and clerestory windows (steel or wood) shutter including chowkhats,architrave,holdfasts,etc., complete and stacking within 50 metres lead,					
a	Of area 3 square metres and below	No	5			
b	Of area beyond 3square metres	No	5			
71	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead	SQM	10			
72	Dismantling tile work in floors and roofs laid in cement mortar including staking material within 50 metres lead					
a	For thickness of tiles 10mm to 25mm	SQM	10			
b	For thickness of tiles above 25mm to 40mm	SQM	10			
73	Dismantling of gully chamber of various sizes including C.I grating with frame including staking of useful materials near the site and disposal of unserviceable materials within 50mts lead including refilling the excavated gap	NO	2			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
	WATERPROOFING					
74	<p>Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces ,etc., consisting of following operations</p> <p>(a)Applying & grouting slurry coat of neat cement@2.75 kg/sqm admixed with WP compound confirming to IS2645 over RCC slab</p> <p>(b)Laying cement concrete using broken bricks/brickbats 25mm to 100mm size with50% of CM1:5 admixed with water proofing compound over 20mm thick layer of CM1:5 to required slope and treating similarly the adjoining walls up to 300mm height including rounding of junctions of walls and slabs</p> <p>(c)second coat of cement slurry</p> <p>(d)Finishing the surface with joint less CM of mix1:4 admixed with WP compound and final finish with trowel with cement slurry & making of 300x300 mm square</p> <p>(e) surface to be flooded with water for minimum2weeks for curing.</p> <p>All operations to be done in order ,as directed and specified by the Engineer-in Charge.</p>					
a	With average thickness of 120mm and minimum thickness at khurra as 65mm	SQM	930			
75	<p>Providing and laying water proofing treatment in sunken portion of WCs, bathroom,etc,. By applying cement slurry mixed with Armourcrete of M/s Structural Water proofing Company Pvt Ltd or Tapecrete of M/S CICO Engineering Services consisting of(a) first layer slurry co cement @.488 kg/sqm mixed with Armourcrete or tapecrete @.253 kg/sqm(b)Second layer of slurry of cement @.242 kg/sqm with Armourcrete or tapecrete @.126 kg/sqm</p>	SQM	80			
76	Providing and laying Cinder concrete					
a	In toilet sunken area	SQM	80			
b	In store room area	SQM	26			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
	RAIN WATER PIPES					
77	Providing and fixing on wall face un-plasticised- Rigid PVC rain water pipes conforming to IS:13592 Type A including jointing with seal ring conforming to IS:5382 leaving 10mm gap for thermal expansion Single docketed pipes P V C down take pipes (4 Kg/Sq cm) of 110 dia of reputed make, cost inclusive of clamps, bends, shoe etc. complete					
a	110mm diameter	RMT	60			
78	Providing and fixing to the inlet mouth of rain water pipe PTMT(Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8mm and weighing not less than 100 gms	No	10			
79	Painting (two or more coats) on rain water,soil,waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of approved steel primer on new work					
a	100mm diameter pipes	RMT	50			
b	150mm diameter pipes	RMT	Rate only			
	TERRACE TILE					
80	Providing and laying pressed clay tiles (as per approved pattern 20mm nominal thickness and of approved size) on roofs jointed with cement mortar 1:4 (1 cement : 4 coarse sand) mixed with 2% integral water proofing compound laid over a bed of 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and finished neat complete.	SQM	950			
	MISCELLANEOUS					
81	Shifting and relocating 2 no containers in ground floor	Each	2			
82	Renewing of available steel windows and fitting and fixing the same with necessary clamps, nuts and bolts or welding and erection etc., Complete	KG	150			
83	Renewing of available Aluminium windows and fitting and fixing the same with necessary clamps, nuts and bolts etc., Complete	Kg	20			
84	Providing, 15x6mm Grooves and filling with POLYSULPHIDE SEALENT for concrete flooring.	RMT	10			
85	Supplying, fabricating and fixing inserts /edge protection angle made of MS Plates,angles,built up sections,etc inserted in RCC & Masonry works as directed and shown in drawings.	KGS	10			
86	Supplying, fabricating and fixing MS Foundation bolts and anchor bolts of any diameter including threading, nuts, washers etc, complete. The rate to be inclusive of erecting the bolts in position during concreting.	KGS	10			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
87	Providing and fixing in position Hilti Bolts of HSA type including drilling holes etc complete as per Manufacturer's Specification.					
a	M12,100mm long	NO	10			
b	M16,130mm long	NO	10			
c	M20,160mm long	NOS	10			
88	Providing and fixing partition of Black Granite of 20mm thick with both sides polished and exposed edges with full round nosing including fixing with MS Pins etc,complete	SQM	10			
89	Providing and fixing Door Closer, floor type with all accessories, complete	NOS	10			
90	Providing and fixing glazed louvers (4mm thick pin headed glass) for windows and ventilators with aluminium louver arrangement, including aluminium frame work {(aluminium frame work shall be as per specification at Sl. no 28(b) above) for fixing louvers, complete, as specified and as directed by Engineer in charge	SQM	10			
91	Providing and fixing and removing Temporary Isolation Barricade with GI sheet. Rate on monthly basis	SQM	60			
92	Removing existing rain water pipes of diameter100mmto 200mm ,and staking of materials as directed within 50m lead. (Bidders are requested to visit site of work to ascertain)	RMT	20			
93	Providing and fixing 450mm wide strip light in the roofing sheets using 2mm thick polycarbonate profiled sheets of " GE - plastic India Ltd " or any other approved equivalent make with necessary aluminium alloy bolts,washers,nuts etc.THE profile of the polycarbonate sheet unless otherwise specified. The side laps will be 1.5 corrugation and end laps 150mm.The laps will not be considered for payment.	Sqm	40			

SI NO	Description	Unit	Qty	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	Amount
94	Providing and fixing sun control film (Garware)					
a	Black or Blue	SQM	75			
95	Providing and fixing of vertical Blind :- Sunthetic faric, aluminium channel, runner, end caps, operating chain, chord, chord weight, botom weight, bottom chain etc. all accseries complete as per the dircection of engineer in charge.	SQM	75			
					TOTAL	
	TAXES & DUTIES					
(i)	WCT					
(ii)	SERVICE TAX					
(iii)	OTHERS, IF ANY					
	GRAND TOTAL FOR PART 1 SECTION A Rs.					
	GRAND TOTAL IN WORDS (Rupees					
Note 1	For any item not covered above but required to be done, the same shall be operated as per CPWD- DSR -2007 and paid based on CPWD DSR-2007 +/- (Plus or minus) bidders tender variations.					

VOLUME 3

PART 1 SECTION B

WATER SUPPLY & SANITARY WORKS

PRICE BID FOR WATER SUPPLY & SANITARY WORKS					PART 1 SECTION B	
SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
a) All the works to be carried out as per relevant IS specifications, whether so mentioned in description of works or not. b) The quoted rate shall include for providing brackets, clamps etc., in ducts and in ceiling for drawing and supporting the pipes, sand, cement, metal and bricks etc., complete.						
A.	<u>INTERNAL SANITARY FIXTURES</u>					
1.0	Providing and fixing white vitreous china pedestal type (European type) water closet with seat and lid, minimum 10 Liters low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40mm flush bend, overflow arrangement					
	Parryware / Hindware with ``S" trap					
	Dual flush cistern with all fittings of slim line (Parry) / Sleek (Hindware) make					
	W.C. pan with ISI marked white solid plastic seat and lid.	Each	7.00			
1.1	Supply and fixing of 15mm CP health faucet with 1.0 mtrs long flexible tube with end nuts and hook and 1 no 15mm CP brass angular stop cock with wall flange, Hook to be fixed with CP brass counter sunk screws, all of approved make etc., complete.					
	CAT No. Particular Make					
	583 Health Faucet Jaquar(Allied)					
	053 Angular stop cock Jaquar(Continental)	Each	10.00			
1.2	Providing and fixing of recessed type (stain less steel) toilet paper holder of approved make.(CAT No. 1151 of Jaguar Make, Continental range).	Each	7.00			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
1.3	Providing and fixing of unplasticise PVC connection pipe with brass union 20mm nominal bore, 450mm length of PVC connection including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. as per specifications	Each	7.00			
1.4	Providing and fixing water closet squatting pan (indian type wc pan) with 100mm sand cast iron P and S trap, 10 litres low level white P.V. C flushing cistern with manually controlled device (handle lever) confirming to IS : 7231, Parryware/Hindware/sea bird/orient (Coral) with all fittings, fixtures complete including cutting and making good the walls and floors wherever required.					
	white Vitreous china long pan pattern W.C Pan of size 580 mm	Each	4.00			
1.5	Providing and fixing white vitreous china pedestal type Bidets, type Cascade Floor mounted (FM) without bottom spray, with Single tap hole suitable for bidet mixer, suitable tap, connecting pipes, fittings, floor connections, etc. complete in all respect necessary for proper function of bidetes.					
	Make parry ware, product Code: C0221	Each	1.00			
2.0	Providing and fixing counter sunk wash basin with CI / MS brackets, 15 mm C.P brass pillar taps, kingston/Gem/Techno/Parko, 32 mm C.P brass waste of standard pattern , including painting of fittings and brackets , cutting and making good the walls wherever required.					
2.1	Rounded basin 405 x 355 mm with single 15 mm C.P brass pillar tap with single C.P brass pillar tap	Each	11.00			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
2.2	Providing 32 mm dia C.P brass trap	Each	11.00			
2.3	Providing 32 mm dia C.P brass union	Each	11.00			
2.4	Providing and fixing PTMT Bottle Trap for Wash basin and sink (Praying or equivalent)	Each	12.00			
2.5	Bottle trap 31mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 260gms.	Each	16.00			
2.6	Providing and fixing of size 600x450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP screws, washers, complete.	Each	2.00			
2.7	Providing and fixing of size 1500x600mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with CP screws, washers, complete.	Each	4.00			
2.8	Providing and fixing of PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less than 105gms (Prayag or eq	Each	4.00			
3.0	Providing and fixing stainless steel A ISI 304 (18/8) Kitchen sink as per I.S. 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required. 610 x 510 mm bowl dep					
	Kitchen sink with out drainboard, 610x510mm bowl depth 200mm	Each	RO			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
4.0	Providing and fixing white vitreous China flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respctively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and	Each	5.00			
	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern.					
4.1	Providing and fixing of push cock with wall flange for urinals.including cost of materials, labour and HOM of equipments with all leads complete as per specifications & as per the direction of engineer incharge. CAT NO. J311 (JAL Make)	Each	5.00			
4.2	Providing and fixing of dome grating & waste coupling for urinals including cost of materials, labour and HOM of equipments with all leads complete as per specifications & as per the direction of engineer incharge.CAT NO.705 Jaquar, Allied	Each	5.00			
B	<u>WATER SUPPLY (INTERNAL)</u>					
1.0	Supply and fixing of approved make medium quality G.I. ``B" class pipe. The concealed pipe lines, the lines running in ducts/on walls & under ceiling shall be considered under internal water supply. Pipes with `R' brand GI malleable specials such as tees	MTR	R Only			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (Internal work)					
	15mm dia nominal bore	meter	15.00			
	20mm dia nominal bore.	meter	65.00			
	25mm dia nominal bore.	meter	10.00			
	32mm dia nominal bore.	meter	65.00			
	40mm dia nominal bore.	meter	5.00			
2.0	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)					
	32mm nominal bore.	Each	4.00			
	20mm nominal bore.	Each	1.00			
3.0	Providing and placing on terrace. polyethylene water storage tank ISI : 12701 marked indicating the BIS License No with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the bas	LITERS	2000.00			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
C	<u>SEWERAGE (INTERNAL)</u>					
4.0	Supply and fixing of SWR PVC Plain/multi floor trap of 'P' or 'S' type with framed stainless steel grating (heavy quality hopper type) and 75mm outlet with necessary cement concrete chamber, water proofing the internal surfaces of chamber etc., complete.	Each	17.00			
5.0	Supply and fixing of PVC 'P' trap with SS framed grating and 110mm dia outlet with necessary cement concrete chamber water proofing the internal surface of chamber etc., complete.	Each	2.00			
6.0	Providing and fixing to wall , ceiling and floor low density polyethylene pipes 6.00kgf/scm working pressure 63mm outside diameter with special flange, compression type fittings, wall clips, making good the wall ceiling and floor including cost of mater	Rmt	15.00			
7.0	Supply and fixing of Type -B SWR PVC soil and waste pipe jointed with good quality of solvent cement for suken slab . As per IS - 13592-1992 for pipes and IS 14735 for fittings, inclusive of all necessary specials like bends, tees, offsets, junctions					
	110mm SWR PVC		35.00			
	75mm SWR PVC		45.00			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
8.0	Supply and fixing of Type -B SWR PVC soil and waste pipe jointed with rubber ring with good quality lubricant for shafts . As per IS - 13592-1992 for pipes and IS 14735 for fittings, inclusive of all necessary specials like bends, tees, offsets, junction					
	110mm OD PVC PIPE		10.00			
	75mm OD PVC PIPE		10.00			
9.0	Providing core cutting of required diameter by using core cutting machine for taking out the soil and waste line in RCC slab/beam etc. At all heights and depths and water proofing the surfaces after the installation & testing the pipes, floor traps etc., c					
	a) 75 mm OD	Each	2.00			
	b) 110 mm OD	Each	2.00			
10.0	Providing 75mm dia PVC Cowl with Cap of approved 1st quality and make conforming to I.S.I specifications and fixing in position including cost of materials, labour and HOM of equipments with all leads complete as per specifications & as per the direction	Each	2.00			
11.0	Providing 110mm dia PVC Cowl with Cap of approved 1st quality and make conforming to I.S.I specifications and fixing in position including cost of materials, labour and HOM of equipments with all leads complete as per specifications & as per the direction	Each	2.00			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
D	WATER SUPPLY (EXTERNAL)					
1.0	Providing and fixing to wall, ceiling and floor galvanised / mild steel tube 40 mm dia nominal bore with fittings, B class concealed pipe including painting with anticorrosive bitumastic paint cutting chases making good the concrete/masonry surface and pla					
	(40 mm dia)	Rmt	100.00			
2.0	Providing and fixing in position brass gate valve with C.I. wheel of approved quality (screwed end) 40mm nominal bore including cost of materials, labour and HOM of equipments with all leads complete as per specifications & as per the direction of Engineer in charge					
	(40 mm dia)	Each	2.00			
3.0	Providing MS angle iron brackets using 40 x 40 x 6mm thick for supporting soil and waste pipes on walls/ceiling by using hanger rods welded/ grouted and the bracket shall be given two coats of anti corrosive paint over a coat primer etc., complete as per	Kg	280.00			
4.0	Supply and fixing of MS grip bolts with adjustable hanger rods with clamps for supporting the soil and waste lines under ceiling for supporting the soil and waste lines under ceiling walls, columns etc., The rate quoted shall include for necessary drilli					
	a) M-10 Size	Each	RO			
	b) M-12 Size	Each	RO			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
E	SEWERAGE (EXTERNAL)					
1.0	Earth work excavating trenches in all sorts of soil of required width for pipes cables,water supply,sanitary line either in pit or in trenches 1.5 M and above in width, in soil not exceeding 1.5M depth including dressing the bottom and sides of pit	Cum	50.00			
2.0	Refilling available earth around pipe line not exceeding 20cm depth, compacting each deposited layer by ramming after watering with lead upto 50 meter and lift upto 1.5 m including cost of labour complete all as per specification .including cost of material	Cum	50.00			
3.0	Providing, laying and jointing of glazed stoneware pipes grade `A' with (manufactured as per IS 651 - 1992) and jointed with yarn cement with a stiff mixture cement mortar in proportion of 1:1 (1 cement to 1 fine sand) including curing the joints and tees	Each	50.00			
4.0	Providing and fixing square mouth S.W. gully trap grade `A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2					
	With F.P.S. bricks class designation 75. 150 x 100mm `P' or `S' type.	Each	2.00			
5.0	Constructing brick masonry inspection chamber for underground C.I. inspection chamber and bends with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weig	Each	2.00			

SL.N O.	DESCRIPTION	UNIT	QTY	UNIT RATE (IN FIG)	UNIT RATE (IN WORDS)	AMOUNT
F	STROM WATER (EXTERNAL)					
1.0	Constructing brick masonry open surface drain with bricks of class designation 50 in cement mortar 1:4(1cement:4 fine sand) including earth excavation,10cm thick bed concrete 1:5:10 (1cement:5 fine sand:10 graded stone aggregate 40mm nominal size) and 25m					
	450mm wide and 600mm depth	RMT	50.00			
					TOTAL Rs.	
	TAXES & DUTIES					
(i)	WCT					
(ii)	SERVICE TAX					
(iii)	OTHERS, IF ANY					
	GRAND TOTAL FOR PART 1 SECTION B Rs.					
	GRAND TOTAL IN WORDS (Rupees					
Note 1	For any item not covered above but required to be done, the same shall be operated as per CPWD- DSR -2007 and paid based on CPWD DSR-2007 +/- (Plus or minus) bidders tender variations.					

VOLUME 3

PART 2

ELECTRICAL WORKS

PRICE BID FOR PART 2 ELECTRICAL WORKS

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
A	FACTORY-BUILT MV PANEL & MCCB/MCB DISTRIBUTION BOARDS:							
A1	<u>MV PANEL:</u>							
	Supply, store erection, testing and commissioning of adding 1 No of 125A,4P,16KA,MCCB Breaker with O/C,S/C,S/T Releases in existing panel Dummy compartment. With all the accessories as per site condition.							
	Supply	1	Each					
	Erection	1	Each					
A2	Supply, store, erection, testing and commissioning of MCB Distribution Boards(IP43-1K09 With Metal Door) , wall-mounted (either surface or recessed type) The erection rates shall include fixing of DB on wall including supply of all fixing accessories, civil works etc. Space provision shall be made for mounting ELCB in the incomer MCB.							
	The rate shall be same for any combination of outgoings TP/SP							
A2.1	VERTICAL TYPE. DOUBLE DOOR TPN DB-DPX125 MCCB DB'S:							
1	4 Way TPN DB-DPX 125A MCCB Incomer with MCB Outgoing							
	SUPPLY & ERECTION	1	Each					
A2.2	HORIZONTAL TYPE. DOUBLE DOOR TPN DB :							
1	8 Way TPN DB with separate Incomer							
	SUPPLY & ERECTION	2	Each					
2	6 Way TPN DB with separate Incomer							
	SUPPLY & ERECTION	1	Each					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
3	4 Way TPN DB with separate Incomer							
	SUPPLY & ERECTION	1	Each					
A2.3	MCB, ELCB, ELMCB							
1	6-32 Amps SP MCB							
	SUPPLY & ERECTION	68	Each					
2	6-32 Amps DP MCB							
	SUPPLY & ERECTION	2	Each					
3	32-63 Amps TP MCB							
	SUPPLY & ERECTION	4	Each					
4	6-32 Amps TPN MCB							
	SUPPLY & ERECTION	3	Each					
5	40-63 Amps TPN MCB							
	SUPPLY & ERECTION	1	Each					
A	TOTAL FOR FACTORY-BUILT MCB DISTRIBUTION BOARDS							
B	POWER CABLES :							
B1	Supply & Laying and testing of 1.1 KV Grade XLPE/PVC insulated Copper/Aluminium conductor steel armoured power cables (AYFY) The rates quoted shall be for laying in trays/ cable trenches (indoor and outdoor), pipes, etc.							
1	3.5 Core x 50 Sqmm Cable (XLPE).							
	SUPPLY	100	Mtr					
	LAYING	100	Mtr					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
2	4 Core x 25 Sqmm Cable (XLPE).							
	SUPPLY	100	Mtr					
	LAYING	100	Mtr					
B2	CABLE END TERMINATIONS :							
	Supplying and providing the end terminations with copper cable lugs, Double compression brass cable glands, taping, crimping, gland and armour earthing, etc. complete as required.							
1	3.5 Core x 50 Sqmm (XLPE).							
	SUPPLY & TERMINATION	2	Each					
2	4 Core x 25 Sqmm (XLPE).							
	SUPPLY & TERMINATION	2	Each					
B	TOTAL FOR POWER CABLES							
C	LOADBREAK SWITCHES/SOCKETS							
	Supply, erection, testing and commissioning of switch fuse unit/load break switch, with factory made 16G sheet steel enclosure mounted on angle iron frame work/grouted into walls, using necessary fixing accessories. The rate shall include for necessary incoming/outgoing cable termination boxes in this item only. The steel supports, grip bolts etc., required for erection will be measured separately under the heading "steel item/grip bolts".							
C1	SOCKET OUTLETS:							
	INDUSTRIAL TYPE:WITH PLUG TOPS							
	Supply, erection, testing and commissioning of factory made metal clad totally enclosed with cast aluminium housing with industrial socket/interlocked combined rotary switch and socket with scrapping earth connection and plug top. In case of interlocked socket, the interlocking should ensure that the plug cannot be inserted or withdrawn while the switch is in 'ON' position. (all switches & sockets shall be housed in painted MS boxes). The erection rate shall include supply of angle iron frame work and fixing accessories such as grip bolts/grouting/ welding to steel structures etc.							

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
1	20 Amps, 3-pin (240V) 1 phase industrial Socket with, controlled by 20 Amps, SPN MCB.							
	SUPPLY & ERECTION	15	Each					
C2	DOMESTIC TYPE :							
	Supply, erection, testing and commissioning of power points by providing following switches/sockets mounted on suitable size MS boxes/PVC Box fixed flush/surface on to the wall with all fixing and wiring accessories.							
1	6/16 Amps, 6-pin (250 Volts) single phase universal socket with 16 A Switch. single pole switch with indicating lamp. The pin configuration shall be round type. These sockets will be used for normal power. Plug tops are excluded from the scope of supply.							
	SUPPLY	40	Each					
	ERECTION	40	Each					
2	Bank of 2Nos.6/16Amps, 5-pin (250 Volts) single phase commercial type socket controlled by 20 Amps SP Switch alongwith indicating lamp. The pin configuration shall be round type.These sockets will be used for UPS power.							
	SUPPLY	110	Each					
	ERECTION	110	Each					
C	TOTAL FOR SWITCHES/sockets/SWITCHFUSE UNITS							
D	SUBMAINS/CIRCUIT MAINS/POWER WIRING :							
	Supply and running of 1100 V grade PVC insulated copper FRLS wires in 16 G MS conduits as per specification titled" DISTRIBUTION SYSTEM, CONDUITS, WIRING AND ACCESSORIES" and following details. The rate shall include supply and installation of all materials like conduits, wires, fixing accessories etc. as detailed in Clause of above mentioned specification.							
1	32 mm dia, FRLSPVC. conduit with all accessories							
	SUPPLY	600	Mtr					
	ERECTION	600	Mtr					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
3	25 mm dia, FRLSPVC conduit with all accessories							
	SUPPLY	4000	Mtr					
	ERECTION	4000	Mtr					
5	Supply and running of 16 Sqmm PVC insulated multistrand copper conductor wire in existing conduits/raceways							
	SUPPLY	190	Mtr					
	ERECTION	190	Mtr					
6	Supply & Running of 10 Sqmm multistrand copper conductor wire in existing conduits.							
	SUPPLY	600	Mtr					
	LAYING	600	Mtr					
7	Supply and running of 6 Sqmm PVC insulated multistrand copper conductor wire in existing conduits/raceways.							
	SUPPLY	800	Mtr					
	ERECTION	800	Mtr					
8	Supply and running of 4 Sqmm PVC insulated multistrand copper conductor wire in existing conduits/raceways.							
	SUPPLY	4500	Mtr					
	ERECTION	4500	Mtr					
9	Supply and running of 2.5 Sqmm PVC insulated multistrand copper conductor wire in existing conduits/raceways.							
	SUPPLY	6500	Mtr					
	ERECTION	6500	Mtr					
10	Supply & Running of 1.5 Sqmm multistrand copper conductor wire in existing conduits.							

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
	SUPPLY	2000	Mtr					
	LAYING	2000	Mtr					
D	TOTAL FOR SUBMAINS/CIRCUIT MAINS/POWER WIRING							
E	EARTHING SYSTEMS							
E1	EARTHING STATIONS:							
	Providing the earth stations with necessary materials, labour, civil works, etc. as per Indian Standard specification IS:3043 etc. complete.							
1	4.5 mtrs long 40 mm dia. G.I pipe electrode earth station.The chamber size shall be 450 x 450 mm with C.I. Cover plate. The identification number shall be provided both inside and outside.							
	SUPPLY	1	Each					
	ERECTION	1	Each					
2	600 4.5 mtrs long 40 mm dia. G.I pipe with 600 x 3.15 mm copper plate electrode earth station.The chamber size shall be 450 x 450 mm with C.I. Cover plate. The identification number shall be provided both inside and outside of equipment.							
	SUPPLY	1	Each					
	ERECTION	1	Each					
E2	EARTHING TAPES/WIRES:							
	Supply and running of earth tapes / wires as per specification, complete. Erection rate shall be for both indoor and outdoor inclusive of earth excavation work.							
1	25 x 5 mm copper tape with PVC sleeve							
	SUPPLY & ERECTION	40	Mtr					
2	25 x 5 mm GI tape (Hot dip galvanised)							
	SUPPLY & ERECTION	75	Mtr					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
E	TOTAL FOR EARTHING SYSTEM							
F	MISCELLANEOUS ITEMS :							
F1	LADDER TYPE CABLE TRAYS							
	Supply & erection of the following sizes ladder type cable tray made of Pre galvanized 2MM sheet and finished with good quality paint with necessary supports like plates ,rod's ,fasteners etc.							
1	300 x70x2 MM Pre Galvanized ladder Type Tray							
	SUPPLY	40	Mtr					
	ERECTION	40	Mtr					
	Horizontal Bend							
	SUPPLY	2	Mtr					
	ERECTION	2	Mtr					
	Vertical Bend							
	SUPPLY	2	Mtr					
	ERECTION	2	Mtr					
	T-Joint							
	SUPPLY	2	Mtr					
	ERECTION	2	Mtr					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
F2	<u>CASING-N-CAPPING:</u>							
1	15 mm width.							
	SUPPLY	80	Mtr					
	ERECTION	80	Mtr					
2	25 mm width.							
	SUPPLY	40	Mtr					
	ERECTION	40	Mtr					
F	TOTAL FOR MISCELLANEOUS ITEMS							
G	<u>LAN & TELEPHONE:</u>							
G1	DUMMY CONDUITSA & MS BOX FOR LAN &TELPHONE							
	(M.S.CONDUIT)							
1	25 mm dia, FRLSPVC conduit with all accessories.							
	SUPPLY	500	Mtr					
	ERECTION	500	Mtr					
2	100x40MM Race way With Accessories (junction boxes etc.)							
	SUPPLY	200	Mtr					
	ERECTION	200	Mtr					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
3	150x40MM Race Way With Accessories(junction boxes etc.)							
	SUPPLY	700	Mtr					
	ERECTION	700	Mtr					
4	200x40MM Way With Accessories(junction boxes etc)							
	SUPPLY	50	Mtr					
	ERECTION	50	Mtr					
5	MS inspection Chambers (10" by 10") (covers for junctions of raceways)Must be painted to match with flooring and have provision handle for lifting. After final completion the chamber is to be cut for minimum opening for cables.	50	Nos					
G	TOTAL FOR LAN & TELEPHONE							
H	LIGHTING SYSTEM							
H1	POINT WIRING :FOR LIGHTS, SOCKETS & FANS.							
H1.1	Wiring with 2 x 2.5 Sqmm FRLS insulated 1100V grade copper conductor wires and 1 x 1.5 Sqmm PVC insulated FRLS earth wire in 2mm thick, 25 / 19mm PVC conduits. The Rate shall include all wiring materials, switches, sockets, regulator, fan hook box, & switch box complete (SWITCHES SHALL BE MODULAR)							
	NOTE: THE WIRING DRAWN FROM DB TO FIRST SWITCH BOX & POWER POINTS IN A ROOM SHALL BE MEASURED UNDER THE HEADING CIRCUIT MAINS,							
1	Single light point controlled by a 6 Amps. switch.							
	SUPPLY	30	Nos					
	ERECTION	30	Nos					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
2	Two light point controlled by a 6 Amps. switch.							
	SUPPLY	10	Nos					
	ERECTION	10	Nos					
3	Three light point controlled by a 6 Amps. switch.							
	SUPPLY	12	Nos					
	ERECTION	12	Nos					
4	Four light point controlled by a 6 Amps. switch.							
	SUPPLY	5	Nos					
	ERECTION	5	Nos					
5	Five light point controlled by a 6 Amps. switch.							
	SUPPLY	5	Nos					
	ERECTION	5	Nos					
6	Single light point controlled by 2-way 6 Amp, switch.							
	SUPPLY	3	Nos					
	ERECTION	3	Nos					
7	Ceiling Fan points (with fan hook Box) including 6 Amp single pole control switch.							
	SUPPLY	40	Nos					
	ERECTION	40	Nos					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
8	Exhaust fan point with wall mounted 5 amps 3 pin socket near fan location and 6 Amps single pole controlling switch located independently. The rate shall also include supply of 6 Amps, 3 pin plug.							
	SUPPLY	4	Nos					
	ERECTION	4	Nos					
10	1 no 5A 3 pin socket and switch Connected to lighting circuits (Dependent)							
	SUPPLY	28	Nos					
	ERECTION	28	Nos					
H1	TOTAL FOR POINT WIRING							
H2	SUPPLY OF INDOOR LIGHTING FIXTURES							
	LAMPS/CEILING FANS/EXHAUST FANS.							
H2.1	SUPPLY OF INDOOR LIGHTING FIXTURES /FANS							
	Supply & Erection of the following light fixtures complete with choke, HPF condenser, starters, control gear, connecting wire with LAMPS/TUBES, etc. complete as required.							
	NOTE: FOR ALL LUMINAIRE TYPE NO. IS GIVEN FOR REF. ONLY. APPROVED EQUIVALENTS SHALL BE CONSIDERED AS IN THE TENDER FURNISHED.							
1	2X 11 Watts, Surface Mounted fixtures with CFL tubes for general lighting of PHILIPS make type FCS 31/211 (or) Equivalent approved make.							
	SUPPLY	30	Nos					
	ERECTION	30	Nos					
2	2X 36 Watts CRESCENT-Surface e Mounted Mirror optic Luminaire with Paralite P5 Louvres Reflector type, Suitable for CFL Lamp for Office area lighting. WIPRO Make -WVP 44236 SGW (or) Equivalent approved make.							

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
	SUPPLY	100	Nos					
	ERECTION	100	Nos					
3	Mirror Light 1X 11 Watts box type, copper ballast, wall/ceiling mounted with suitable for CFL Lamp PHILIPS Make Type FMS 200/111 (or) Equivalent approved make.							
	SUPPLY	4	Nos					
	ERECTION	4	Nos					
4	1X 36 Watts , copper ballast, surface mounted fluorescent fixtures with T-8 tubes for general Lighting of PHILIPS Make Type TMS 500/136 HF (or) Equivalent approved make.							
	SUPPLY	6	Nos					
	ERECTION	6	Nos					
5	1 x13 Watts circular type Surface mounted down lighter with CFL Lamps of BAJAJ Make BJDS 113 or equivalent approved make.							
	SUPPLY	8	Nos					
	ERECTION	8	Nos					
6	Flood Light Fitting suitable for Outdoor Type (IP65) Pole/pedestal mounted with 1x250W MH lamp of PHILIPS make type MWF 330-SK/250 (or) approved equivalent.							
	SUPPLY	4	Nos					
	ERECTION	4	Nos					
H2.2	<u>CEILING FANS:</u>							
	Supply & Erection of white colour ceiling fan with double ball bearings, accessories, connecting wire and other standard accessories but excluding regulator.							
1	1200mm Sweep, 3 blade ceiling fan.							
	SUPPLY	40	Nos					

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
	ERECTION	40	Nos					
2	300 Watts electronic regulator.							
	SUPPLY & ERECTION	40	Nos					
H2.3	WALL MOUNTING FANS:FOR OFFICE AREA.							
	Supply & Erection of wall-mounted fan oscillating type fans as specified with adjustment & mesh guard and other standard accessories, Including regulator.							
1	450 mm sweep (Single phase)							
	SUPPLY	2	Nos					
	ERECTION	2	Nos					
H2.4	EXHAUST FANS:							
	Supply, Erection of exhaust fans with sheet metal blades, necessary brackets, anti-corrosive epoxy painting, rubber cushions, etc. The 5 Amps 3-pin socket near fan location & remote located single-pole controlling switch, are included in the point wiring for exhaust fan point.							
1	300 mm impeller dia, 1400 rpm exhaust fan (single phase)							
	SUPPLY	4	Nos					
	ERECTION	4	Nos					
H2	TOTAL FOR INTERNAL LIGHTING/FANS/EXHAUST FANS							
	<u>ABSTRACT</u>							
	<u>POWER SYSTEM</u>							
A	FACTORY BUILT MCB DISTRIBUTION BOARDS							
B	POWER AND CONTROL CABLES							

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
C	SWITCHES/SOCKETS/SWITCHFUSE UNITS/STARTERS							
D	SUBMAINS/CIRCUIT MAINS/POWER WIRING							
E	POWER EARTHING SYSTEM							
F	MISCELLANEOUS ITEMS							
G	LAN & TELEPHONE CONDUITS/RACEWAYS							
	<u>LIGHTING SYSTEM</u>							
H1	TOTAL FOR POINT WIRING							
H2	TOTAL FOR INTERNAL LIGHTING/FANS/EXHAUST FANS							
	GRAND TOTAL for Electrical tender							
	<u>OPTIONAL ITEMS</u>							
1	Equivalent LED lighting (Quantity type and make to be provided) in place of item H2.1(1)- CFL 30 nos.	to be provided						

S.NO	DESCRIPTION OF WORK	QTY	UNITS	UNIT PRICE	AMOUNT	VAT	SER.TAX	TOTAL AMOUNT
2	Equivalent LED lighting (Quantity type and make to be provided) in place of item H2.1(2)- CFL-100 nos.	to be provided						

VOLUME-3

ABSTRACT

"Construction work of Civil ,Architectural, Structural & Electrical Work For Office Building Extension at First floor of BHEL-ISG, BHEL-EPD campus, Prof CNR Rao Circle, IISc Post. Malleswaram, Bangalore-560 012.

ABSTRACT OF COST FOR PART 1, PART 2 AND PART 3

SL NO	DESCRIPTION	TOTAL AMOUNT (IN FIG)	TOTAL AMOUNT (IN WORDS)
1	PART 1 SECTION A - CIVIL & STRUCTURAL WORKS		
2	PART 1 SECTION B - WATER SUPPLY & SANITARY WORKS		
3	PART 2 ELECTRICAL WORKS		
GRAND TOTAL Rs.			