



BHARAT HEAVY ELECTRICALS LIMITED
RAMACHANDRAPURAM::HYDERABAD::32
FACTORY CIVIL ENGINEERING DEPARTMENT

SCHEDULE- A

Tender Notice No:

HY/FCD/OT-14/2012-13, Dt: 14.08.2012

PRICE BID

Item no.: 3

Name of work: Modernisation of CDC Shipping Department (Existing FMC at K Gate)
interiors-Civil, Electrical, communication and IT networking, Air conditioning
etc.

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
Part A - Civil Works.					
1	Dismantling the existing wooden / aluminum partitions / half height partitions if required into small units including removing doors and glass panes and stacking in stores, removing the old furniture, almirahs/records and any other items lying in the floor including transportation, loading & unloading, stacking in stores within 2 Kms lead as directed by Engineer-in-charge.	10.00	Sq. m.	75.00	750.00
2	Dismantling of old cement mortar plastering and disposing off upto a lead of 2 Kms. lead, of walls and ceiling including cost of scaffolding, labour etc. complete as directed by Engineer-in-charge.	10.00	Sq. m.	8.20	82.00
3	Dismantling and disposing off upto 2 Kms lead of reinforced cement concrete work such as slabs, floors, beams, columns etc. using pavement breaker, chipping hammer or other suitable tools etc. complete (Compressor Air pavement breaker will be supplied on hire basis).	1.00	Cu. m.	582.68	582.68
4	Earth work in excavation in all soils by mechanical means (Hydraulic Excavators) / manual means in foundations trenches or drains (not exceeding 1.5 m in width or 10 Sq. m on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 M.	71.00	Cu. m.	103.40	7,341.40
5	Brick work with clay flyash FPS brick of class designation 75 in super structure above plinth level upto floor five level in cement mortar 1:6 (1 cement : 6 Coarse sand).**	55.00	Cu. m.	1,808.00	99,440.00
6	Plastering in CM 1:6, 20 mm thick to internal and external surfaces of walls including the cost of all materials, labour, curing etc. complete.**	420.00	Sq. m.	65.80	27,636.00
7	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering including consolidation by vibrations for all works up to plinth level with 1:4:8 (1 Cement : 4 Coarse sand : 8 graded stone aggregate of 20 mm nominal size).**	26.00	Cu. m.	1,560.50	40,573.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
8	Providing and laying in position reinforced cement concrete of specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement, including consolidation by vibrations for all works up to floor level with 1:1 1/2 :3 (1 Cement : 1 1/2 Coarse sand : 3 graded stone aggregate of 20 mm nominal size).**	11.00	Cu. m.	1,641.30	18,054.30
9	Providing and laying Damp-proof course 50 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size).**	20.25	Sq. m	153.40	3,106.35
10	Coursed rubble masonry in second sort with hard stone in foundation and plinth with cement mortar 1:6 (1 cement : 6 coarse sand).**	38.75	Cu. m.	1,521.00	58,938.75
11	Reinforcement for RCC work including straightening, cutting, bending, placing in position and binding grills with binding wire all complete by cold twisted bars.**	1.00	M T	4,003.00	4,003.00
12	Fabrication of structural steel work including all materials going into the process of fabrication and forming an integral part of steel work together with all shop and site rivets and electrodes for site welding as necessary and all site connections comprising sag rods, floor beams, girders, bracings, trusses and frame work for fixed false ceiling and for movable false ceiling, purlins with channel / angles, MS flat supports including all connections as per detailed drawings connected steel works etc., cleats, gusset plates, all bolts, nuts, washers, base plates, anchor bolts as per detailed drawings, cutting, welding and painting 2 coats of red-oxide primer before erection etc., complete. The rate shall include painting 2 coat of Red-oxide as per IS specifications and all charges for handling, leading and loading at the fabrication yard. The raw structural steel sections, electrodes, gasses will be issued by BHEL on FREE of cost at their stores.**	0.50	MT	7,563.80	3,781.90
13	Erection of Steel work out lined in above item, including the charges for handling, leading and stacking at site at approved locations prior to erection including all site rivetting, bolting, jointing and site welding where ever required.	0.50	MT	3,241.60	1,620.80
14	Wall paneling: Supply & fixing with new 12 mm thick particle board one side laminated of approved brand (Eco board) and shade for wall paneling on the wooden frame work (treated with termite and moisture resistant chemical) and also for doors, windows, cup board sliding shutters, pelmets, boxes etc. with necessary fixtures like brass hinges, door handles and stoppers etc. as directed by Engineer-In-charge. The rate quoted shall include of cost of all labour, materials such as particle boards, nails, screws, sliding rollers/bearings, fevicol etc. complete. Frame work with second class teak wood scantlings of size 50 x 25 mm as verticals and horizontals, at an interval of 900 mm c/c shall be made for fixing the Eco board. Joints shall be covered with Steam Beige beading and corners shall be covered with corner Steam Beige beadings of suitable sizes with malamine finish complete in all respects. Make : Eco board	350.00	Sq. m.	1,600.00	5,60,000.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
15	Supply and fixing of 12 mm thick toughened glass glazed single door shutter with door hardwares "Dorma / Ozone" make like floor springs, pivot patch fittings, bottom locks, 'D' Handles and providing with "3M" frosted film in required design etc complete as directed by Engineer-in-charge. The above door shutter shall be fixed to the aluminium / wooden / glazed door frames of the cabins. The rate shall include cost of all materials, glass, door hardwares, frosted film, labour charges etc complete.	10.00	Sq. m	10,000.00	1,00,000.00
16	Supply and erection of false ceiling: Providing and fixing in true horizontal level 600 mm x 600 mm false ceiling system manufactured by M/s. Armstrong World Industries / M/s Daiken using DUNE SUPREME RH 99 MICROLOOK EDGE WITH SILHOUETTE GRID, using hot dipped galvanized steel section, rotary stitched main tee of size 15mm x 42 mm web height, having 0.36 mm gauge at every 600 mm centre to centre maximum and rotary stitched cross tee of size 15 mm x 42 mm, having 0.33 mm gauge at every 600 mm. c/c. and wall angle of size 19 x 19 mm., having 0.35 mm gauge fixed to the periphery of the wall. The above grid is suspended at every 600mm c/c. in both directions using 2.0 mm. thick pre-straightened GI wire, and laying Dune Supreme Microlook Edge ceiling tiles manufactured by M/s. Armstrong World Industries, of size 600mmx600mmx15mm having NRC 0.50, Light reflectance of >85% (WT), thermal conductivity k = 0.052-0.057 W/m0K, Humidity Resistance of 99% (having LIFETIME GUARANTEE against SAG), having Fire Performance CLASS O / CLASS 1 (BS 476), surface having 3 coats of white paint - crisp finely granulated with microperforations, - ions back of the tile duly sanded and finished with a coat of protective paint over the formed grid and complete in all respects. Boards, where light fixtures to be fixed shall be handed over to Department. Make: Armstrong	174.00	Sq. m	1,130.00	1,96,620.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
17	Vitrified flooring: Supply and laying of vitrified tiles of brighter shades and required design of Premium Quality (1st Quality), in required texture and colour for floors/skirting/cladding using vitrified tiles of size 600x600 mm (\pm 5 mm), inclusive of cost of cutting, chamfering of tiles to required size, with base of Conmax C-500/equivalent tile adhesive for fixing tiles on existing mosaic/cement flooring, laying of tiles in required design with spacers or without spacers jointing the tiles with colour tint if required etc. complete as directed by Engineer in-charge. The cost of the tile shall be Rs. 60/- per Sft. (inclusive of all taxes and duties) and tiles of required make will be selected by department within the above specified cost. The rate quoted shall include cost of all materials, labour, adhesives, colour tint material, leads and lifts etc. complete. Amount will be paid on the basis of measurement of the area of finished work only. It also includes surface preparation of existing ceramic floor giving necessary slopes, cleaning joints and grouting joints with pigmented additives to match shade of the tile. This includes making pockets for electrical, communication, network cables, junction boxes etc. complete in all respects.	174.00	Sq. m.	950.00	1,65,300.00
18	Full height glass partitions for cabins: Providing & fixing of Aluminum frame work using 50 x 50 x 1.2 mm box sections placed at approximately 600 mm c/c horizontally and vertically and forming a grid size of 600 x 600 mm. The frame work is to be adequately anchored in RCC slab for a firm support. Then fixing of 12 mm MDF board on both sides of Aluminum frame work upto the false ceiling level. Providing and fixing of 12 mm Toughened Glass in required size for partitions. The glass partition shall be provided with "3M" frosted film in required design. The joints of the glass partitions shall be flushed perfectly without any gaps and joints shall be filled with silicon compound. If necessary bottom of the glass shall be fixed in PVC sleeve, subsequently fixed into floor. The door opening shall be deducted for payment.	5.00	Sq. m.	4,000.00	20,000.00
19	Supply & fixing of aluminium full/half height partitions with new anodised aluminium box section powder coated in required colour of size 101.60 x 44.45 x 2.00 mm for verticals, top and bottom horizontals at spacing suiting to the site requirements as approved. Wherever doors are coming wooden runners are to be provided in the box section. The rate shall include grouting of frame to the floor properly fixed to at ends to walls, supply & fixing of 12 mm toughened glass in required sizes, aluminium sections, labour, frosted film on glass with specified design and sizes etc. complete. (The door opening shall be deducted for payment).	180.00	Sq. m	4,000.00	7,20,000.00
20	Supply & fixing of Rollar blinds including channels, fabric etc. complete and the basic cost of the blinds shall be in the range of Rs. 125/- per S Ft. The colour and design of the blinds will be selected by department within the above specified cost.	50.00	Sq. m	1,500.00	75,000.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
21	Removing of corrugated / semi corrugated , AC sheets including north light curves barge boards etc; in roof, sides, gable ends, louvers etc; and stacking the materials carefully for re-use wherever required.	400.00	Sq. m	43.65	17,460.00
22	Supply & fixing of Aluminium metal tiles powder coated in false ceiling suitable to the Armstrong false ceiling grid size under the roof mounted AC indoor units. Colour of the tile shall be matched with the colour of Armstrong boards.	10.00	Each	380.00	3,800.00
23	Single / Double leaved fully glazed patch fitting doors: Supply and fixing of Single / Double glazed door to the door frame of size 75 mm x 200 mm thick BT wood door frame and the facias of the wooden frame shall be covered with 6 mm teak veneer in required colour and design. Supply and fixing of 12 mm toughened single / double glass door leaves fixed in wooden frame all around the glass and wooden frame size shall be 150 mm x 40 mm. All teak wood frame surfaces shall be fixed with teak veneer in required colour and design and the teak veneer of door frame and shutter frame shall be finished with malamine polish into a neat finish. The glass doors shall be fixed to the door frame with door hardwares like floor spring, patch fitting / pivot fitting, centre lock and 'D' Handles of make " Dorma / Ozone ". Supply and fixing of "3M" frosted film on the glass door in required design complete in all respects, as directed by Engineer-in-charge. Payment will be made for the measurement of finished door along with frame. The price quoted shall includes material, labour, accessories etc complete.	6.00	Sq. m	15,000.00	90,000.00
24	Dismantling of existing windows along with frames and providing Glazed Windows Dismantling and removing the existing windows along with frames including chipping/chasing brick work/concrete for removal and stacking in stores as directed by Engineer in charge. Supplying & fixing of flush window frame with sides openable shutters and fixed double glazed window with fixed ventilators fabricated from roll formed sections made of galvanised steel powder colour coated (Base steel as per IS 513 "D" quality, galvanised as per IS 277 with Zinc of 120 grams/Sq. m) with total coated thickness of 0.60 mm. External frame should be 46 mmx52 mm. Section for glass beading should be of 20 mmx20 mm and centre mullion should be of 46 mmx70 mm and section for shutter should be of 46 mmx46 mm. Coated sections should be with primer coat of epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns, powder coated with pure polyster powder upto 50-60 microns thick. The frame and shutter sections should be cut to length and mitre joined with corner bracket made of CRCA electroplated. Mullion section	40.00	Sq. m.	4,000.00	1,60,000.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
	<p>should be joined with frame/mullion using Nylon Mullion Cap Ethyl Propylene Diamine Monomer (EPDM) gasket should be used all around glass in shutter between frame and glazed shutter and both sides of fixed glass. Accessories: Handle made of high grade aluminium powder coated and with nylon receiver. Gaskets made of Ethyl Propylene Diamine Monomer (EPDM). Corner brackets made of CRCA with zinc phosphating. Mullion caps made of glass filled nylon.</p> <p>Glass: Glass shutter and fixed glass portions should be provided with a glass of 20 mm (5 mm plain glass + 10 mm Hermitically sealed air gap + 5 mm plain glass).</p> <p>Chipped/chased brick work shall be neatly finished with cement plaster and plastered area shall be applied with water proof paint. Paint will be supplied by BHEL on free of cost. Window frame should be fixed to brick/concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80 mm long screws into the caps through frames.</p> <p>Any minor gaps between frame and brick work shall be sealed with silicon material at both sides to avoid seepage of rain water/loss of air condition system.</p> <p>MAKE: SHAKTI/AJANTHA OF NCL SECCOLOR</p>				
25	Supplying & fixing of Aluminium Zinc alloy coated metallic roofing sheets of 0.5 mm thick 1 meter width and length upto 12 mts with insulated construction of roof, cladding and inside duct panelling with air tight boxing type fixing as per drawing factory cut insulated and fixing to the roof shall be crest fixed to roof purlins with number 12-14 x 55 mm long polymert coated galvanised hex head self drilling screws with integral washers and EPDM seals (4 fasteners for support) for sheet etc., complete as directed (including cost of roof sheets).	400.00	Sq. m	875.00	3,50,000.00
26	Providing & fixing corner flashing in required girth with 0.5 mm colour Aluminium Zinc alloy coated metallic roof sheets upto the length min. of 2.5 mts having curved width upto 360 mm, fixing to the steel members with self drilling / self stitching fastners at maximum 500 mm c/c along length of capping, flashing etc. complete (including cost of roof sheets).	30.00	Sq. m	750.00	22,500.00
27	Providing & fixing side curves in required girth with 0.5 mm colour Aluminium Zinc alloy coated metallic roofing sheets upto the length of 2.5 mts having curved width upto 600 mm, fixing to the steel members with self drilling / self stitching fastners at maximum 500 mm c/c along length of capping, flashing etc. complete as directed (including cost of roof sheets).	10.00	Sq. m	650.00	6,500.00
28	Supply & installation of 0.5 mm thick colour Aluminium Zinc alloy coated metallic roofing sheet ridges to required shape with self threaded screws etc. complete as directed.	40.00	Sq. m	750.00	30,000.00
29	Supply & fixing of new urinary pans "Parryware" make, Ceramic, Model (Cat 0575) "New Magnum Urinal" (600 x 400 mm) along with all accessories, CP spreader brackets etc. regular in colour along with partition for Magnum Urinal ceramic, 'Z' type brackets to be screwed to the wall at the bottom size 810 x 390 mm in regular colour etc. complete.	2.00	Each	3,933.00	7,866.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
30	Supply and fixing of "Parryware" make ceramic oval shape below counter wash basin size 550 mm x 450 mm, Code No.: 0418, regular in colour (light Ivory) with all accessories like brackets, screws, waste coupling half thread/full thread (Code No. T9910A), connecting hose 2' (Cat No. T991999) etc. complete.	4.00	Each	2,024.00	8,096.00
31	Supply & fixing of new "Parryware" make ceramic cascade water closet suite with "P/S" trap including Polypropolene seat cover with all accessories regular in colour along with ceramic matching colour low level cistern 10 liters capacity with wonder flush fittings.	2.00	Each	6,985.00	13,970.00
32	Supply & fixing of new "Parryware" make, Orissa Pan size 580 mm (Cat 0109/17) with P/S trap box rim with internal foot treads including ceramic low level flushing cistern 10 liters capacity with Parryware wonder flush kit, regular in colour with all required accessories etc. complete.	2.00	Each	4,261.00	8,522.00
33	Supply & fixing of 6 mm thick mirror of approved quality "Modi float/Saintgobin glass", with 6 mm thick hard board back and with best quality teak wood frame (design beading) all round the mirror including necessary clamps, polishing to the beading, cost of all materials etc. complete.	10.00	Sq. m	1,445.00	14,450.00
34	Providing & fixing FRP bath room door shutters with frame.	7.20	Sq. m	2,000.00	14,400.00
35	Supply and fixing of toilet doors along with teak wood door frame of required size consist teak scantlings of 100 mm x 75 mm and flush door shutter and laminating both door frame and shutter with premium quality teak veneer in required colour and design and malamine polish. Flush door shutter shall be chemically treated and water/insect/borer proof and 30 mm thick. This includes providing brass hinges, brass aldrops, brass tower bolts, brass handles and brass door stoppers.	6.00	Sq. m	3,000.00	18,000.00
36	Supply and fixing of "Jaquar " make Pressmatic Urinal Flush Valve for Urinal Pots (Cat No. 51027), with all accessories.	4.00	Each	1,320.00	5,280.00
37	Supply and fixing of "Jaquar (Florentine)" make 2-way bib cock with wall flange, Cat No. 5041	4.00	Each	1,230.00	4,920.00
38	Supply and fixing of "Jaquar (Continental)" make sink cock with raised 'J' shaped swinging spout, Cat No. 359	4.00	Each	1,060.00	4,240.00
39	Supply & fixing "Marc" make Oriental series brass stop cock with all accessories.	6.00	Each	698.00	4,188.00
40	Supply and fixing of "Jaquar (Allied)" make Health Faucet with 8 mm dia, 1 m long flexible tube and wall hook, Cat No. 573	2.00	Each	1,325.00	2,650.00
41	Supply & fixing of 18 mm thick best quality Jet Black colour machine cut mirror polished granite slabs in required sizes for counter wash basins, floorings, vanity counter, claddings, facias etc. including cutting, champering, rounding and mirror polishing etc. complete as directed. Cost of granite slabs shall be Rs. 1600/- per Sq. m and granite slabs of required design and colour will be selected by department.	4.50	Sq. m	3,071.00	13,819.50

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
42	Supply & fixing 10 mm thick best quality approved colour and design machine cut granite tiles of size 600 mm x 300 mm with mirror polished granite stone for flooring, platforms, cladding, vanity counter Facia etc and for any other locations including cutting, champering, rounding and mirror polishing etc. complete as directed. Cost of the granite shall be Rs. 650/- per sq. m and tiles will be selected by department within the above specified cost.	50.00	Sq. m	810.00	40,500.00
43	Supplying & fixing in position with suitable with PVC pipe of approved quality including chasing brick work / concrete and making good the same after replacing wherever necessary etc. complete including all accessories like bends, tees, elbows etc. - 75 mm (3") dia.	20.00	R M	80.78	1,615.60
44	Supplying and fixing CI Nahany traps 1st quality ISI marked conforming to IS: 1729 - 1979 with C.P Grating fixing with white cement as per site requirements with standard practice - 100mm inlet - 75 mm dia (3") outlet pipe - 4 Kgs.	4.00	Each	200.00	800.00
45	Thorough cleaning of existing oil bound distemper paint/white washing with water, by scrapers for old walls and stone rubbing for new plastered walls with suitable tools and applying one coat of oil based cement primer and applying 3 coats altek lappam one coat after drying the previous coat and sand papering and applying two coats of acrylic washable distemper etc., complete as directed by the Engineer-in-charge. Rate shall include all materials like lappum, primer, tools and tackles, scaffolding etc. Only acrylic washable distemper will be issued by BHEL at free of cost.	50.00	Sq. m	84.10	4,205.00
46	Providing and placing on terrace (at all floor levels) of polyethylene water storage tank of 1000 ltrs capacity with double layer of make sintex/Aqua tech as per ISI 12701/96 with cover and suitable locking arrangement and making necessary holes for inlet and outlet and overflow pipes with fittings (ballcock, inlet and outlet nipples) without base support for tank. (Brick work will be paid seperately).	1.00	Each	6,000.00	6,000.00
47 a)	Supplying, laying, jointing and testing 101.6 mm (4") SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in Cement mortar 1:5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) up to 1524 mm (5'0") depth and refilling with watering and tamping.	10.00	R M	183.00	1,830.00
b)	Supplying, laying, jointing and testing 152.4 mm (6") SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in Cement mortar 1:5:1 prop. Including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 1524 mm (5'0") depth and refilling with watering and tamping.	10.00	R M	254.00	2,540.00
48	Supply & fixing 12.7 mm PVC connection with brass union nut CP coated.	10.00	Each	67.00	670.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
49	Applying two coat of Synthetic enamel paint of given shade over a coat of primer to steel windows and ventilators including scraping the surfaces, cost of all labour, tools and other incidentals etc. complete.	10.00	Sq. m	28.50	285.00
50	Applying exterior emulsion paint two coats of given shade on old surfaces of walls at all heights of the buildings including scraping the old surfaces, cost of all labour and other incidentals. (Only exterior emulsion paint will be supplied by BHEL).	1,400.00	Sq. m	20.55	28,770.00
51 a)	Supply & fixing 15 mm dia Nominal Bore GI pipe medium Grade properties and weight as per IS 1239 ISI mark with GI fittings including the cost of GI pipe & its fittings, chasing brick work/concrete and making good the same, cost of labour, all materials etc. complete. Make: TATA/JINDAL/ZENITH	20.00	R M	131.00	2,620.00
b)	.. Do... 20mm dia (3/4")	20.00	R M	146.00	2,920.00
c)	.. Do... 25mm dia (1")	20.00	R M	191.00	3,820.00
52 a)	Supply & fixing of GM peet valves, heavy quality, ISI marked Leader/Zoloto make of nominal bore for 15 mm (1/2") dia	4.00	Each	242.00	968.00
b)	.. Do... 20mm dia (3/4")	4.00	Each	327.00	1,308.00
C)	.. Do... 25mm dia (1")	4.00	Each	482.00	1,928.00
53	Construction of brick masonry chamber of size 23 x 30 Cm (9" x 12") in brick work in CM 1:6 and plastering in CM 1:4, 20 mm for gully trap 150 mmx100mm including cost of excavation, PCC 1:4:8, 75 mm thick, all materials, labour etc., complete.	2.00	Each	321.00	642.00
54	Constructing 914.4 mm x 457.2 mm(3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber up to 914.4 mm(3'0") and fitted with light weight 914.4 mmx457.2 mm(3'0" x1'6") C.I frame and cover of 40 kg.	2.00	Each	2,742.00	5,484.00
55	Providing & fixing ventilating cowl	2.00	Each	14.00	28.00
56	Supply and fixing of "Jaquar (Florentine)" make 2-way bib cock with wall flange, Cat No. 5041	4.00	Each	1,230.00	4,920.00
57	Supply and fixing of towel ring	4.00	Each	500.00	2,000.00
58	Supply and fixing of Soap Dish	4.00	Each	500.00	2,000.00
59	Supply and fixing of Odonil Holders	2.00	Each	500.00	1,000.00
60	Supply & fixing coloured glazed tiles of required make ceramic tiles of Premium (First) quality of required size and of approved shade and design, for walls/flooring over a base of CM 1:4, including neat finishing and jointing etc. complete. (Corners are to be joined by mitering the tiles). The cost of the tile shall be Rs. 70/- per S Ft. The make, design and colour of tile will be selected by department within the above specified cost. The rate quoted shall also include the cost of all materials, labour etc. complete. Payment will be made for finished item of work only.**	120.00	Sq. m	764.00	91,680.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
61	Supply & fixing of walk way tiles of required design, colour and make, with base of Conmax C-500 / equivalent tile adhesive for fixing tiles on existing flooring. The cost of the tile shall be Rs. 50/- per S Ft. The make, design and colour of tile will be selected by department and agency will procure the same within the above specified cost. The rate quoted shall also include the cost of all materials, labour, leads and lifts etc. complete. Payment will be made for finished item of work only.	60.00	Sq. m	650.00	39,000.00
Total of Part A - Civil Works				₹	31,51,025.28
Part B - Air Conditioning Works					
1	Labour charges for erection & commissioning of window AC, as directed by Engineer-in-charge.	1.00	L S	1,500.00	1,500.00
Total of Part B - Air conditioning Works				₹	1,500.00
Part C - Electrical works					
1	Cable Raceways Supply, installation, testing & Commissioning of separate floor Raceways with covers & Cable Trays with suitable covers for all ratings of power supply points, both 230VAC and 415 V AC Supply & Installation of 300x50x2.0mm GI ladder type Cable Tray with all accessories and supporting arrangement from ceiling or Wall complete in all respects.	20.00	R M	661.00	13,220.00
2	Supply & Installation of in-screed floor raceways (to be run separately for power, network and telephone cables) consisting following rectangular Aluminium sections including chasing and refilling the trench as per the route shown in the drawing and approved by Engineer in charge at site including clamping & closing the open pipe ends temporarily by suitable end covers against entry of dust or any other foreign material complete in all respects. 96 x 38 mm	250.00	R M	431.00	1,07,750.00
3	56 x 38 mm	100.00	R M	374.00	37,400.00
4	Supply & Installation of floor junction boxes with pre-fabricated stainless steel top cover, 3mm thick provided with suitable Stainless Steel screws for fixing to the junction boxes, of size 300mm x 300mm x 50mm / 150x150x50 fabricated out of MS painted sheets complete in all respects. Make : Locally fabricated	50.00	Each	546.00	27,300.00
5	Removal of existing electrical equipment Removing all existing switch socket, cable, wire, DB, Telephone socket, Networking socket, Telephone and data cable or any other equipments including stacking and transporting to the departmental stores.	1.00	LS	10,000.00	10,000.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
6	<p>Supply, Installation and commissioning of MAIN LT PANEL, floor mounted, front operated, dead back, totally enclosed vermin proof, indoor, non-draw out, cubicle type power dist. panel fabricated out of 2mm thick CRCA sheet having gasketed hinged door on each cubicle, fully powder coated / enamel painted after seven tank treatment, incorporating horizontal and vertical sleeved copper busbars 'complete with all internal wiring, danger board, two earthing lugs, cable chamber etc. as required' housing below mentioned switchgears / meters complete in all respects. This panel should consist of following.</p> <p>Digital Energy meter with RS 485 port - 1 No. 250A 50KA TPN MCCB unit as Incomer - 1 No. 160A,50KA TPN MCCB as outgoing - 1 No. 63A, TPN MCB as outgoing - 6 Nos. 40A, TPN MCB as outgoing - 4 Nos. 0-250A, Ammeter with CT & inbuilt S/S - 1 No. 0-415V, Voltmeter with inbuilt S/S - 1 No. TP&N, Aluminum busbars of suitable size thick with PVC sleeving - 1 Set RYB, indicating lamps with resistors and fuses - 1 Set This includes termination of the cables, end terminators, material, labour, commissioning etc. complete.</p>	1.00	Set	74,750.00	74,750.00
7	<p>Supply, Installation and commissioning of UPS OUTGOING PANEL, floor mounted, front operated, dead back, totally enclosed vermin proof, indoor, non-drawout, cubicle type power dist. panel fabricated out of 2mm thick CRCA sheet having gasketed hinged door on each cubicle, fully powder coated / enamel painted after seven tank treatment, incorporating horizontal and vertical sleeved copper busbars 'complete with all internal wiring, danger board, two earthing lugs, cable chamber etc. as required' housing below mentioned switchgears / meters. Complete in all respects. This should comprise of following.</p> <p>Digital Energy meter with RS 485 port - 1 No. 250A 4P MCCB as Incomer - 1 No. 63A, 4P, MCB as outgoing - 5 Nos. 0-250A, Ammeter with CT & inbuilt S/S - 1 No. 0-415V, Voltmeter with inbuilt S/S - 1 No. TP&N, Aluminum busbars of suitable size thick with PVC sleeving - 1 Set RYB, indicating lamps with resistors and fuses - 1 Set</p>	1.00	Set	66,890.00	66,890.00
8	<p>Supply and installation of 8 way, TPN, MCB type Lighting Distribution Board (LDB) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin' proof, and hinged door with all internals such as DIN rails, neutral-link, interconnected wiring complete with earthing lugs housing following switchgears: Complete in all respects. This should comprise the following.</p> <p>40A, FP ELCB as incomer(100mA) - 1 No. 10A, SP, MCB outgoing(10KA) - 24 Nos. Make: Siemens/Legrand/Hager</p>	1.00	Set	12,334.00	12,334.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
9	Supply, Installation and commissioning of 8 way, TPN, MCB type Power Distribution Board (PDB) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin' proof, and hinged door with all internals such as DIN rails, neutral-link, interconnected wiring complete with earthing lugs housing following switchgears: 63A, FP ELCB as incomer(100mA) - 1 No. 16/20A, SP, MCB outgoing(10KA) - 24 Nos. Make: Siemens/Legrand/Hager	1.00	Set	9,344.00	9,344.00
10	Supply, Installation and commissioning of 8 way, TPN, MCB type Computer Power Distribution Board (CPDB) flush mounted on wall, sheet metal fabricated, powder coated, having dust-proof and vermin' proof, and hinged door with all internals such as DIN rails, neutral-link, inter connected wiring complete with earthing lugs housing following switchgears, complete in all respects.: 40A, FP MCB Isolator as incomer(10KA) - 1 No. 16A, SP, MCB outgoing(10KA) - 24 Nos. Make: Siemens/Legrand/Hager	1.00	Set	10,988.00	10,988.00
11	Supply, Installation and commissioning of 8way SPNDB similar to above but for emergency lighting distribution (ELDB) having below mentioned switchgears, complete in all respects. 32A, DP, MCB as incomer - 1 No. 6A, SP, MCB, outgoing (10KA) - 6 Nos. Supply, Installation and commissioning of 20A, SP, MCB, box with 20A, metal clad plug-socket for termination of cable for room A/C Make: Siemens/Legrand/Hager	1.00	Set	3,910.00	3,910.00
12	CABLES / MAINS Supply & Installation of 1100V grade FRLS armoured cable having sector / circular shaped aluminum / copper conductor PVC insulated cores, laid up, PVC tape wrapped inner sheathed, GI strip / wire armoured and overall extruded PVC sheathed conforming to IS:1554 laid on wall/ceiling using GI clamps & spacers as per route shown at site and further as directed by Consultant at site in the following sizes, complete in all respects.: Supply & laying of 4C x 120 SQ.MM Copper armoured cable in suitable size of PVC Conduit.	30.00	R M	3,450.00	1,03,500.00
13	Supply & laying of 4C x 70 SQ.MM. copper flexible in suitable size of PVC Conduit.	20.00	R M	2,000.00	40,000.00
14	Supply & laying of 4C x 16 SQ.MM Copper armoured cable.	40.00	R M	1,035.00	41,400.00
15	Supply & laying of 4C x 10 SQ.MM copper armoured cable.	50.00	R M	690.00	34,500.00
16	Supply & laying of 4C x 6 SQ.MM copper armoured cable.	40.00	R M	517.00	20,680.00
17	Supply and installation of end terminations for above mentioned cables, including compressed type brass glands, crimping type copper lugs, insulation tape etc. as required complete with earthing of glands in following sizes, complete in all respects. 4C x 120 SQ.MM copper armoured cable.	2.00	Each	1,380.00	2,760.00
18	4C x 70 SQ.MM. copper flexible cable	2.00	Each	920.00	1,840.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
19	4C x 16 SQ.MM Copper flexible cable	2.00	Each	747.00	1,494.00
20	4C x 10 SQ.MM copper flexible cable	2.00	Each	747.00	1,494.00
21	4C x 6 SQ.MM copper flexible cable	2.00	Each	575.00	1,150.00
22	WIRING Supply & Installation of surface/concealed point wiring FRLS using 600v grade 1.5 SQ.MM copper conductor PVC insulated wires (with proper R,Y,B color code) pulled through 1.2mm thick PVC conduits laid concealed over false ceiling or in wall chases including 1.0 SQ.MM green color copper earth wire and provision of grid plate type switches as approved by architect, complete in all respects. Primary light points of 5A switch. (Switch shall be of ROMA Type).	40.00	Each	1,087.00	43,480.00
23	Supply & installation of above for Secondary light points looped from the above point.	30.00	Each	385.00	11,550.00
24	Supply & installation of Hub/Server Room Power Points(3R of 4sqmm copper wire in PVC conduit) with 32A Metal Clad Socket with M.S Enclosure control by a 32 A DP MCB.with Top in enclosure from Hub/Server room DB.	1.00	Each	2,760.00	2,760.00
25	Supply and laying of 1100V grade PVC insulated, copper conductor cables in 1.5mm thick P.V.C. conduits, run above the false ceiling, concealed in the wall or partition, saddles at every 600mm c/c. A separate neutral shall be run for each circuit. The rate shall include all fixing accessories like collars, tees, elbows, providing fan hooks, ceiling roses, holders, wooden blocks, switches, sockets, switch mounting MS boxes, MS Junction Boxes etc., of approved make, complete in all respects, for sl.No. 26, 27 & 30 (Separate rate is not required to be quote for item No.26)				
26	Supply and laying of 2 runs of 2.5 SQ.MM. PVC insulated copper conductor FRLS cable along with 1run of 1.5Sq.mm PVC insulated copper conductor cable. Run in a 19mm dia. 1.2mm thick PVC conduit on surface of the ceiling or in wall.	700.00	R M	144.00	1,00,800.00
27	Supply & fixing of 6A/16A Plug Point directly taken from DB for Pantry/geyser / zerox / fridge/ split AC units. Make: Roma of Anchor or North West	10.00	Each	862.00	8,620.00
28	Supply and laying of 2 runs of 4.0 SQ.MM. PVC insulated copper conductor FRLS cable along with 1 runs of 1.5Sq.mm PVC insulated copper conductor cable. (1-PH AC'S) Run in a 25mm dia., 1.2mm thick PVC conduit, on surface of the ceiling or in wall, complete in all respects.	150.00	R M	172.00	25,800.00
29	Supply and installation of 6A, 5 pin 3 nos. shuttered type sockets controlled by 1no. 16A switch with suitable size of front plate etc. (UPS POWER set); Quantity of outlets are: 4nos. At each work stations, cubicles, 6 nos. each in rooms of PAs, in all cabins of GM, AGMs, conference rooms, ; location of the points will be finalised in consultation with engineer in charge, complete in all respects. Make: Roma of Anchor	25.00	Each	1,552.00	38,800.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
30	Supply and installation of one no 6A 5pin shuttered type sockets controlled by 1no. 6A switch with suitable size of front plate etc. (RAW POWER set) Make: Roma of Anchor	20.00	Each	920.00	18,400.00
31	EARTHING Supply and installation of 2 nos. of separate earth pits each with material for power and network (including excavation) comprising of 600mm x 600mm x 3mm thick copper plate buried at a minimum depth of 2.5 meter including necessary materials like charcoal, salt etc as required conforming to BIS standards having brick masonry chamber with hinged cover and watering arrangement, complete in all respects.	1.00	Each	24,150.00	24,150.00
32	Supply and installation of copper wire/strips in following sizes 14 SWG copper bare wire	100.00	R M	57.00	5,700.00
33	Supply and installation of isolated earthing system for computer etc. using insulated green yellow copper earthing wire laid through 20mm PVC conduits from separately made earth pit to the equipment in following sizes Supply and installation of 16 sqmm, cu., in 20mm PVC flexible conduit.	40.00	R M	172.00	6,880.00
34	Supply and installation of 6 sqmm, cu in 20mm PVC flexible conduit.	150.00	R M	86.00	12,900.00
35	LIGHTING FIXTURES Supply & Installation of lighting fixtures with lamps as per the details below including necessary hardware such as clamps, nuts, bolts, nails, screws and suspension rods as required for fixing the fixtures in position as directed by architect / consultant, complete in all respects. Supply & fixing of energy efficient light fitting of Philips FBS 450/236 D6 HF wing -C- LX recess mounted direct, indirect light efficiency.	25.00	Each	5,175.00	1,29,375.00
36	Supply & Installation of exhaust fans, 12" size, Heavy Duty Make: Philips/Crompton Greaves	2.00	Each	1,437.00	2,874.00
37	Supply & Installation of Recess mounted down lighter luminaries with specular finish reflector 1 x 18 W CFL Cat No Philips make:FBH145/118.	10.00	Each	1,275.00	12,750.00
38	Supply & Installation of Occupancy sensors with bypass facility for cabins. This includes wiring from sensor to board and supply of required accessories. Make: Philips/Wipro/Steinel	2.00	Each	6,325.00	12,650.00
	Total of Part C - Electrical Works			₹	10,80,193.00
	Part D - IT Networking				
1	Supply and installation of CAT 6 Gig speed information outlets with dual face plates. Quantity of outlets are: 2nos. At each work stations, cubicles, rooms of PAs; 4 nos. in all cabins of GM, AGMs, conference rooms, ; location of the outlets to be finalised in consultation with engineer in charge. Make: Tyco/D-Link/Molex	30.00	Each	434.00	13,020.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
2	Supply, installation and termination of approved make telephone outlets RJ 11jack with dual face plate. Quantity of telephone jacks are: 2nos. at each work stations, cubicles; 4 nos. each in all cabins of GM, AGMs, conference rooms, rooms of PAs; location of the outlets to be finalised in consultation with engineer in charge.	30.00	Each	434.00	13,020.00
3	Supply, laying and termination of Cat 6 Gig speed - 4 Pair 24 AWG UTP Cable, 305m with cross member pair separator complete as required. Each box contain 305 mtrs. of cable.	6.00	Box	8,050.00	48,300.00
4	Supply, laying and termination of 2pair 0.5mm dia shielded PVC insulated Copper conductor Telephone wire conforming to latest Standards.	800.00	R M	3.00	2,400.00
5	Supply, installation and dressing of Cat 6Gigaspeed Patch Panels for accommodating 24 port termination and shall facilitate cross-connection and inter-connection using modular patch cords and shall conform to EIA standard, 19 inch relay rack mounting requirements. Patch Panel shall come with preloaded information outlets. Panel shall have label holders and designation labels as part of the standard device. Shall also come with rear cable management metallic tray with Velcro ties complete as required.	2.00	Each	11,500.00	23,000.00
6	Supply, installation and dressing of Cat 6Gigaspeed Mounting Cords 3'-0" length for the Patch Panel End Connectivity, Both end shall be RJ 45 with snag less boots complete as required. Make :D-Link or TYCO for all items covered at 1 to 6	40.00	Each	230.00	9,200.00
7	End terminations for telephone cables into junction boxes.	2.00	Each	1,495.00	2,990.00
8	Providing and fixing of Pigtails for Server.	4.00	Each	2,415.00	9,660.00
9	Providing and fixing of slicing of cores.	6.00	Each	1,092.00	6,552.00
10	Supply and fixing of fibre patch cards.	4.00	Each	5,750.00	23,000.00
11	Supply and fixing of Powder coated metallic race ways for tables in cabins and conference halls.	15.00	Each	575.00	8,625.00

S. No.	Description of the item	Qty	Unit	Rate (₹)	Amount (₹)
12	Supply and fixing of 2 KVA online UPS system with all accessories with one hour back up. Make: APC	1.00	Each	51,175.00	51,175.00
	Total of Part D - IT Networking			₹	210942.00
	Sub total (Part A+Part B+Part C+Part D)			₹	44,43,660.28
	Add increase in Vat 1% over the material cost (70% of contractor scope)			₹	31,105.62
	Total value of work			₹	44,74,765.90
Total : ₹ Forty four lakhs seventy four thousand seventy four thousand seven hundred sixty five and nine paise only					

Note: **Cement, structural steel/MS reinforcement steel will be issue by BHEL on free of cost at BHEL stores.	
1	A penalty of 0.5% of the gross value of work or part thereof will be levied for every week's delay of work subject to a maximum penalty of 10% of the gross value of work.
2	The rates are inclusive of all taxes and duties except Service tax, which is extra as per service tax norms will be paid by BHEL to the agency after submission of necessary documents

Note : The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

Tender %	In figure	In words
Excess		
Less		
Estimated value		

Name of the Contractor :

Signature of the Contractor