

Estimate for Electrical , Data Cabling & Low Side Air- Conditioning works for Central Bank of India, RO Dhanbad under Dhanbad Region & Patna Zone (Percentage Tender)					
(Quoted rates shall be inclusive of all labour, material, scaffolding etc and (Excluding GST))					
1	No Offsite pre fabrication shall be allowed in any case. All fabrication shall be done at the site after getting the materials inspected by the Architect.				
2	No Payment shall be made for any in completed or unsatisfactory work.				
3	The Contractor should strictly follow the shop drawings/ specifications requirements of the Bank, including the detailed drawings in the Booklet. Any discrepancy between the drawings/ specifications and the specification below should be brought to the notice of Architect.				
4	List of materials to be strictly as per the shop drawings/ specifications.				
5	Cable managers to be provided in the tables and counters wherever required.				
S.No.	Item Description	Quantity	Unit	Rate	Amount
ELECTRIFICATION AND DATA CABELING WORKS					
A	WIRING AND CABELING				
	The rates for the point wiring shall include providing and fixing of following:				
a	Wiring of the point of any length from distribution board to point outlet including circuit wiring (i.e from DB to Switchboard)				
b	Earthing of all switch box and all outlet boxes fitting, fans, 3rd pin of plug with 1.50mm copper wire.				
c	Modular Switch/ Sockets of Standard make with necessary modular series cover plate and MS Boxes				
d	Embedding all conduits in walls laying in slabs, above false ceiling or in floors including all accessories as required, cutting and refilling the chases with cement mortar .				
e	Providing, fixing Modular switches, sockets, M.S. boxes (1.6mm thick) draw boxes, G.I. Pull wires (where required), brass screws, ceiling rose/connector etc.				
f	Adopting separate and independent system of wiring for lighting, power (normal and essential supply). Wiring for following points using PVC insulated copper conductor wires of 650V/1100V grade in MMS grade-PVC conduit concealed/ exposed including switches & sockets as above.				
g	LIGHT :(Maximum three points to be looped from primary) POWER:(Maximum TWO points in one circuit)				
	INTERNAL WIRING				
1	POINT WIRING :				
	Providing wiring (supply, fixing, testing and comm. etc) for light point / Exhaust fan point / Call bell point/6A Switch-socket point etc with 2x1.5+1X1.5 sq mm FRLS PVC insulated copper conductor single core multi stranded wire in MMS grade-PVC conduit with conduit accessories like bend , junction box etc in concealed/surface manner as per site requirement with suitable Modular Switches with plate and metal / PVC box, ceiling rose , bulb holder etc including 1.5 sqmm PVC insulated copper earth wire etc complete as required. Wire colors : Red, Black, Green .Supplying, providing wiring (supply, fixing, testing and comm. etc) for circuit with 2 x 1.5 + 1 x 1.5 sq mm FRLS PVC insulated copper conductor single core multi stranded wire in MMS grade-PVC conduit with conduit accessories like bend, junction box etc on surface / recessed manner etc (Wiring from D.B. / Source to Board/destination) and making good all the damages, painting, cleaning the site etc complete as required as per site requirement and as directed.				
a	Providing and fixing Primary light point	109.00	No's.	500.00	54500.00
b	Providing and fixing Secondary light point (Maximum three points to be looped from primary)	10.00	No's.	400.00	4000.00
c	Plug point /ceiling Rose Point (for wall fans/Exhaust fan)Supply, fixing and commissioning of 1 No 6A multi Socket with 1 No. 6A switch (Modular type) with cover plate, sheet steel box / PVC modular box etc on surface / concealed manner I/c electrical connections and making good all the damages, painting, cleaning the site etc. complete as required as per site requirement and as directed.	46.00	No's.	600.00	27600.00
d	P&F Bell point i/c of buzzer	6.00	No's.	800.00	4800.00
e	6 AMP. POINTS ON SAME BOARD (Half point) :				
	Supply, fixing, testing and commissioning of 1 No 6 A Multi Socket with 1No. 6 A switch (Modular type) with cover plate , sheet steel box / PVC modular box etc on surface / concealed manner I/c electrical connections and making good all the damages, painting, cleaning the site etc complete as required as per site requirement and as directed.	50.00	No's.	400.00	20000.00
f	Ceiling fan point (rate should include electronic fan speed regulator)	2.00	No's.	500.00	1000.00
2	16 AMP. POWER POINTS:(including circuit wiring)				
	Supply, fixing, testing and commissioning of 1 No 16 A switch & 1 No. six pin 6/16 Amp. Multi Socket (Modular Type) with cover plate , sheet steel box etc on surface / concealed manner I/c electrical wiring with 2 X2.5 sqmm + 1 X 2.5 sqmm FRLS PVC insulated copper conductor single core multi stranded wire in MMS grade-PVC conduit with conduit accessories like bend, junction box etc on surface / recessed manner etc (Wiring from D.B. / Source to Board to destination) and making good all the damages, painting, cleaning the site etc complete as required as per site requirement and as directed.	12.00	No's.	950.00	11400.00
3	AC POINTS :				
	Supply, Installation, Testing and commissioning of the surface / recess mounting distribution board with 20 A Metal plug and socket, with 20 A/25A/32A SP MCB Incl. wiring with 2 X 4.0 sq mm + 1 X 4 sqmm PVC insulated copper conductor single core multi stranded wire in MMS grade-PVC conduit with conduit accessories like bend, junction box etc on surface / recessed manner etc (Wiring from D.B. / Source to Board/destination) and making good all the damages, painting, cleaning the site etc complete as required as per site requirement and as directed.(MCB of C-Curve with S.C Capacity 10 kA)	15.00	No's.	1850.00	27750.00

	PANELS AND D.B.'s				
4(a)	MAIN PANEL/VTPN(4 WAY) :(With following minimum capacity) Supply, installation , testing and commissioning of totally enclosed compartmentalized dust and vermin proof cubical segregated and modular in construction M.V. panel board wall mounted fabricated with 14swg and 16swg of CRCAM.S.sheet duly painted with two coat of metal red oxide and two coat of fire resistance paint at inside and out side of the panel, bus-bar chamber ,outgoing switchgear etc (all feeder unit Would be compartmentalized), color coded PVC sleeved vertical / horizontal busbar of required size of length, (bus-bar distances shall be minimum 32 mm) insulators, hardware, neoprene gasket , hinged door, interconnecting single core multi strand lugged copper wire having current density of 2A / sqmm of suitable capacity & size with lugs from busbar to switchgears / mccb / mcb or where ever required, two earthing terminal busbar of size 25 x 5 mm with nut & bolts at out side of the panel , rating and name plates for all incoming & outgoing , two eye two nos eye bolts,wire mesh jali for ventilation etc comprising with the followings.				
	NOTE:-				
	Sheet 16 swg : panel sides,upper,lower,and Ft.doors				
	Sheet 16 swg : back side and compartments.				
	Glandplates : 3 mm thick.				
	Cable entry : Provision at bottom and upper sides.				
	Inside the panel : white colour paint.				
	Outside the panel : Grey colourpaint.or as directed.				
	INCOMER				
	1 Nos 80 Amp MCCB, 25 KA- 4 Pole,C-curve				
	1 Nos – 100 A TPN insulated Copper Bus Bar				
	Set of Indicator Lamps				
	Set of Voltmeter + Ammeter+ Selector Switch				
	OUTGOINGS				
	3 Nos- 40 Amp,1 No-63 A TPMCB,C-curve				
	100/125 amp CHANGEOVER				
	SET AS ABOVE	1.00	No's.	45000.00	45000.00
(b)	SFU TPN 80 A with HRC fuses(just after meter and prior to Main Panel)	1.00	No's.	4500.00	4500.00
5	LIGHT DISTRIBUTION BOARD				
	Supply, Installation, Testing and commissioning of the surface / recess mounting following way TPN MCB three phase distribution board for single phase outgoing with IP 42 protection , direct on wall incl. the followings accessories.				
	INCOMER				
	1 No. TPN-RCBO/ELMCB 40 Amp ,100 ma sensitivity				
	OUTGOINGS				
	6-8 Nos SPMCB 6/10/16 Amp,B-Curve				
	SET AS ABOVE	1.00	No's.	6500.00	6500.00
	incl. Electrical connection ,earthing, making good all the damages, painting, cleaning the site, etc complete as per site requirement and as directed.				
6	AC DISTRIBUTION BOARD				
	Supply, Installation, Testing and commissioning of the surface / recess mounting following way MCB three phase distribution board for single phase outgoing with IP 42 protection , direct on wall incl. the followings accessories.				
	INCOMER				
	1 No. TPMCB 63Amp ,C-curve				
	OUTGOINGS				
	8 Nos SPMCB 25/32 Amp,C-curve				
	SET AS ABOVE	1.00	No's.	7500.00	7500.00
	incl. Electrical connection ,earthing, making good all the damages, painting, cleaning the site, etc complete as per site requirement and as directed.				
	SUBHEAD IV : UPS WIRING				
7	U.P.S. DISTRIBUTION BOARD (INCOMER)				
	Supply, Installation, Testing and commissioning of the surface / recess mounting following way Double door MCB D.B.- Single phase distribution board (Consumer unit) for single phase out going with IP 42 protection incl. the followings accessories – incl. Electrical connection ,earthing, making good all the damages, painting, cleaning the site, etc complete as per site requirement and as directed.				
a	INCOMER				
	1 NOS 40 A DP MCB				
	OUTGOINGS				
	2 Nos- 40 Amp DP MCB				
	SET AS ABOVE	1.00	No's.	3000.00	3000.00
b	UPS DIST. BOARD OUTGOINGS.				
	1 NOS 12 WAY SPN DIST BOARD				
	1 Nos- 40 Amp DPMCB				
	6-8 NOS 6/10 AMP SPMCB				
	SET AS ABOVE	1.00	No's.	4000.00	4000.00
8	SPECIAL POINTS: (UPS) any length (TO WORKSTATIONS)				
	Supply, fixing, testing and commissioning of following Modular type switch socket with cover plate , sheet steel box etc on surface / concealed manner l/c electrical wiring with 2 X 2.5 sq mm + 1 X 2.5 sq mm FRLS PVC insulated copper conductor single core multi stranded wire in rigid MMS grade PVC conduit with conduit accessories like bend, junction box etc on surface / recessed manner etc (Wiring from D.B. / Source to Board/destination) and making good all the damages, painting, cleaning the site etc complete as required as per site requirement and as directed.				
	1 Nos. 16 A Switch + 3 Nos. 6 A, 5 pin Socket.	50.00	No's.	1100.00	55000.00

9	EARTHING				
	Preparation of the Earth station : (as per I.S. 3043)				
i).	Excavation of rocky earth, soft murrum, hard murrum etc and back filling with black cotton soil for the earth station, the earth pit size is 1000 mm X 1000 mm X 2500 mm deep.				
ii).	S/F of Copper plate of size 600 X 600 X 3.00 mm				
iii).	Supply & fixing 25 mm X 5 mm , 3 mtrs copper strip from copper plate to earth terminal including brazing/welding at plate etc.				
iv).	Supplying and laying in position 15 mm, 2 mtrs G.I. B class perforated pipe for watering.				
v).	S/F of one set of reducer / funnel with mesh .				
vi).	S/F of the following in the earth station.				
vii).	75 Kg. Charcoal.				
viii).	50 Kg. Original Salt.				
a	Construction of earth pit chamber incl necessary brick work, concrete , plastering, S/F of C.I. cover of size 12" X 12" complete as per site requirement with watering arrangement etc complete.	2.00	No's.	5000.00	10000.00
b	Supplying and laying 25 X 3 mm copper strip direct on wall/ in ground with screws and washer including soldering / welding etc if required..	1.00	No's.	1200.00	1200.00
c	Supply and laying of 6.0 sqmm PVC insulated copper wire from earth station to main panel board in 20 mm GI Pipe including all materials, accessories etc complete.	145.00	Mtr	110.00	15950.00
	CABLING :				
10	LT.CABLES :				
	Supply, laying ,testing and commissioning of the following 1100 volt grade pvc insulated Al / Cu. Conductor armored cable inner and outer sheathed , along with the two run of G.I. earth wire i/c termination with brass gland and Al. lugs etc. complete as required.				
	On surface :				
	S/Fixing the cable on wall / column / beam / ceiling / above false ceiling / existing trench etc incl. s/f of saddles / spacers (wherever required as per site conditions) and two run of G.I. earth wire along with the cable. Making good all the damages.				
a	4 C x 10.0 sqmm armored copper cable with 10 SWG 2 Nos G.I. wire for Electric room /Ups room.	185.00	Mtr	220.00	40700.00
b	3.5 C X 35 sqmm. Al. Armored . (with 10 SWG 2 Nos. G.I. wire) from electric pole to METER ROOM.	95.00	Mtr	300.00	28500.00
11	E-DG Set Supply				
	S/laying of 3.50 x 25sq.mm XLPE insulated armored Copper Conductor cable from proposed DG set to Changeover switch including its connections at both ends with lugs to be laid in 25mm dia rigid PVC flexible conduit.	125.00	Mtr	260.00	32500.00
12	100/125 amps change over switch of Havels make	1.00	No's.	11000.00	11000.00
	TELEPHONE WIRING / CABLING SYSTEM.				
13	TELEPHONE POINT :				
	Supplying, Installation, testing and commissioning of the telephone point with the followings -				
i).	Two pair, 0.61 mm dia. telephone cable tinned copper conductor, P.V.C. insulated and sheathed , fire retarding, anti termite, color coded twisted pairs and rip cord.				
ii).	HMS Pvc pipe on beam /column / wall / floor etc with all necessary materials i/c connections, identification by numbering etc complete as required as per I.T.D. specification.				
a	Double outlet with shutter modular type Telephone Outlets (RJ – 11) with suitable size PVC modular boxes complete as required .	5.00	No's.	550.00	2750.00
b	Single outlet with shutter modular type Telephone Outlets (RJ – 11) with suitable size PVC modular boxes complete as required .	20.00	No's.	500.00	10000.00
c	Providing and fixing 10 pair KRONE make telephone tag block with 10 pair module with termination and crimping complete and making good the surface as required/ directed.	1.00	No's.	450.00	450.00
d	Providing and fixing 10 pair armored tinned copper telephone cable in 32 mm PVC conduit from telephone utility junction box.	265.00	Mtr.	90.00	23850.00
14	COMPUTER CABLING SYSTEM.				
i)	Supplying, Installation, testing and commissioning of the Computer point with the followings -				
ii).	Four pair STP CAT 6 LAN cable tinned copper conductor, P.V.C. insulated and sheathed , fire retarding, anti termite, color coded twisted pairs and rip cord. (from server room switch to I/O outlet)				
iii).	HMS Pvc Pipe on beam /column / wall / floor etc with all necessary materials i/c connections, identification by numbering etc complete as required as per At & T specification.				
a	Single outlet with shutter modular type I / O's Outlets (RJ – 45) with suitable size PVC modular boxes complete as required. (including 2 for ATM)	50.00	No's.	1200.00	60000.00
b	Supply and Installation of following factory fabricated patch cords (STP-CAT 6) complete with connectors and boots on both sides. Two Meter length	45.00	No's.	200.00	9000.00
c	Supply and laying of Four Pair STP CAT 6 LAN cables including cost of 25mm dia 1.5mm thick PVC Conduit / Floor tucking.(Rate Only)	0.00	Mtrs.	30.00	0.00
2	Supplying and fixing				
a	9U/12U Rack 3 side open	3.00	No's.	5000.00	15000.00
b	Patch cord cat6 1 metre B/Y Color	50.00	No's.	150.00	7500.00
15	ELECTRICAL FITTINGS/ FIXTURES				
1	Supply, fixing, testing and commissioning of Recess mounted decorative luminaire with LED FIXTURES with class I electrical safety, complete as required Fitting Dimensions :				
a	32-40 watts, Minimum 2800 lumens LED SQUARE size 600X600X80 mm (Approx.) : CRI>80, PF>0.9	78.00	No's.	2000.00	156000.00
b	14-15 w , Minimum 850 lumens LED ROUND DOWN LIGHTER Diameter 110-165mm, CRI>80, PF>0.9	7.00	No's.	750.00	5250.00
c	1 x (32-36) watt LED Light batten with fitting wall mounted	7.00	No's.	600.00	4200.00
d	S/F of suspended/ surface mounted/ ceiling/ wall mounted 1200 mm long, 32-36 watt with 3600 lumen metal batten LED Tube lights complete in all respects and as per specification e.g. Crompton/ Philips/ Panasonic/ Syska make.	15.00	No's.	600.00	9000.00
e	S/F of 9 watt LED bulb with holder for pantry/ toilets of rompton/ Philips/ Panasonic/ Syska make.	10.00	No's.	250.00	2500.00

2	WALL BRACKET FAN				
a	Supply and fixing of the following fans Wall bracket fan white (400mm blade size)	41.00	No's.	2200.00	90200.00
	CEILING FAN				
b	Supply and fixing of CEILING FAN 1200 MM Sweep	2.00	No's.	1600.00	3200.00
	EXHAUST FAN:				
c	Supply and fixing of the following single phase Exhaust Fan continuously rated, capacitor start and run type, totally enclosed and ruggedly built, pre lubricated double ball bearing, copper wound, A & E class insulation, dynamically balanced, below 40 db sound level etc. Supplying & fixing of 300 dia Exhaust fans.	5.00	No's.	1500.00	7500.00
	TOTAL FOR ELECTRICAL AND DATA CABELING WORKS (C)				822800.00
B	LOW SIDE AIR CONDITIONING WORK				
1	Supplying & Laying extra suitable Copper refrigerant piping with all required material.	325.00	Mtrs.	700.00	227500.00
2	Supplying & Laying extra suitable PVC Drain piping with all required material.	165.00	Mtrs.	100.00	16500.00
3	Supplying & Fixing suitable MS Stand for 1.5 tr/2 tr AC outdoor	15.00	No's.	800.00	12000.00
4	Supplying & Laying of power cable from indoor to outdoor suitable for 1.5 tr /2 tr load/AC	339.00	Mtrs.	100.00	33900.00
	TOTAL FOR LOW SIDE AIR-CONDITIONING WORKS (D)				289900.00
	GRAND TOTAL AMOUNT FOR ELECTRICAL & LOW SIDE AC WORKS (A+B)				1112700.00
	PERCENTAGE ABOVE OR BELOW THE ESTIMATED COST ... %				
	FINAL AMOUNT AFTER ABOVE OR BELOW OF THE ESTIMATED COST				

Note: All quoted rates are excluding the GST.