

Subject	Proposed Electrical work for State Bank of India, Regional Business Office - IV, at Fourth Floor, & G.F.Sheranwala Gate, The Mall, Patiala, Distt. Patiala. (Pb).				
	BOQ - Electrical Work				
	ITEM DETAILS	QTY.	UNIT	RATE	AMOUNT
	Note - The work / Items includes all kind of leads / lift, shuttering & scaffolding for all heights & floors. No extra Payment shall be made for the same.				
	Part -A				
	Sub Head -I : COMPUTER POINTS & DISTRIBUTION				
1	Supply all material, storing, handling, fixing of computer points computer points in suitable size of GI/PVC box including providing 3 nos 5 amps 3 pin modular sockets to be provided under table top and controlled by 1 no 15 A moduler type switch and indicator (to be provided above the table top in partition) with moduler cover plate etc. & suitable gland with termination complete as required including 3X2.5 sq. mm copper armored cable.. Note: Maximum two computer points are to be provided on one circuit. (Switches : Make: Anchor/Crabtree/North-West/MK.	110.00	each		
i	The work / above works includes all Kind of GI junction boxes of required sizes - 900 mm x 900mm / 600 mm x 600mm / 450 mm x 450mm / 300 mm x 300mm & other required sizes with SS cover plate.				
2	Supply, installation, testing and commissioning of factory fabricated distribution board rust inhibited powder coated sheet fabricated comprising of incoming and outgoing isolator & MCBs neutral link or neutral bus, top and bottom detachable entry earthing bolts interconnection and grouting bolts etc complete as required as per details below. Make: Havells/HPL/Standard/ Legrand/L&T				
a)	12 way SPN MCBDB Double Door comprising of 1 No 63 Amp DP Isolator and 10 No SPMCB 10/16 Amp. (UPS output)	3.00	no.		
b)	8 way SPN MCBDB Double Door comprising of 1 No 63 Amp DP Isolator and 6 No SPMCB 10/16 Amp. (UPS output).	3.00	no.		
c)	6 way SPN MCBDB comprising of 1 No 63 Amp DP Isolator and 4 No SPMCB 10/16 Amp. (UPS output).	3.00	No		
d)	4 WayTP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 63 A FP MCB with 30mA ELCB and 12 Nos. 6/10 Amp SPMCBS etc complete as required. (for Light, Fan point only)	3.00	no.		
e)	4 WayTP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 100 A FP MCB and 12 Nos. 20/25 Amp SPMCBS etc complete as required. (for Raw Power Only)	3.00	no.		
3	RAW POWER: Supply all material, storing, handling, fixing of Raw power points in suitable size of GI/PVC box including providing 1 nos 15 amps 6 pin modular power sockets to be provided controlled by 1 no 15 A moduler type switch and indicator with moduler cover plate etc complete as required including 2X2.5 sq. mm FRLS copper wire + earth wire in dia 2 mm in thickness ISI Mark PVC pipe. Note: One RAW power points are to be provided on one circuit and directly to be connected on Power DB. (Switches : Make: Anchor/Crabtree/North-West/Legrand	30.00	each		

4	Supply, installation, testing and commissioning of following capacity 3 pin metal clad industrial type plug and socket arrangement with plug top, cap and chain controlled by under noted capacity: (Make: Havells/HPL/Standard/Legrand/L&T)				
a)	20 Amp with 20 Amp. C Curve SP MCB. (for 1.0Tr /1.5 Tr High wall split AC's and seprate connection of record room / safe room / chest room etc. as required)	6.00	no.		
5	Providing and fixing of suitable size MS box fabricated with 16 G MS sheet either in recess wall or on surface to accommodate dedicated earth from earth electrode and further distribution of earth to computer points including providing of 5 mm bakelite on base connector strip and painting of box etc as required.	1.00	job		
6	Basic electrical Wiring of light points, plug points				
	Wiring for light point/ ceiling fan point/ exhaust fan point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit ISI Mark, with 6Amp modular switch, modular plate, suitable GI junction & switch boxes & clip and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. (Wires Make: Havells / KEI/Finolex) (Switches : Make: Anchor/Crabtree/North-West/Legrand)				
a)	single 6 Amp Switch controlling 1 light point for T-5, exhaust Fans, Ceiling fan and other seprate room supply only	60.00	no.		
b)	single 6 Amp Switch controlling 4 no. of downlights / 4 no. LED downlight / 2 no. 2'-0"x 2'-0" 36 watt light fittings	100.00	no.		
c)	single 6Amp socket controlling by 5Amp Modular switch in switch boards etc complete as required	50.00	no.		
d)	Extension of wall fans: Extension of existing / new points with 2 x 1.5 sq.mm. PVC insulated copper conductor cable in suitable dia PVC conduit in recess conduit wiring system for wall fan points with modular switches of 6 amp and 5 amp 5 pin modular sockets as per requirement and filling chassis etc complete as reqd.	40.00	no.		
6a.	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed ISI class PVC conduit as required. .(Wires Make: Havells / Polycab/Finolex/Pymen)				
	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	200.00	mtr		
	Note: Lihgts/fans points to be calculated by numbers of lights and no extra cost shall be paid for dummy switch.)				
	Sub Head - II : PANELS , KIT KATS & CABLES				
7	Providing and fixing of 03 no 300 Amps KITKAT including 1 no neutral link on suitable size of Bakelite sheet of thickness not less than 06 mm complete as required.	1.00	job		

8	MAIN PANEL : Supply at site installation testing and commissioning of panel fabricated with 16 G MS sheet. The panel shall be free standing type totally enclosed dust and vermin proof construction with rubber gaskets. The floor mounting panel shall have ISMC mounting channels, GI earth busbar, busbar chamber ,cable alleys interconnection with solid bar/PVC insulated copper conductor as per requirement, and suitable supports of busbars. The panel shall be painted with two coats of enamel paint (Grey shade) over primer and shall also be provided with designation of Incoming and outgoing feeder as details below:				
	INCOMING				
	1 no MCCB Breaking Capacity 36 KA 250 Amp 4P , L&T make.				
	1 no 0 -500V digital Voltmeter in separate compartment and digital Amp meter and one set of CTs (3 Nos) with CT Ratio 200/5 A with LED type phase Indication Lamps with protection fuses in a separate compartment.				
	250 Amps 4P capacity 4 strips Aluminium bus bars.				
	OUTGOING				
	1 nos MCCB Breaking Capacity 25 KA 160 Amp 4P and 3 nos MCCB Breaking Capacity 25 KA 100 Amp 3P with seprate neutral Link & 3 nos MCCB Breaking Capacity 10 KA 63 Amp 3P with seprate neutral Link, L&T make.	1.00	set		
9	A.C. PANEL : Supply at site installation testing and commissioning of panel fabricated with 16 G MS sheet. The panel shall be free standing type totally enclosed dust and vermin proof construction with rubber gaskets. The floor mounting panel shall have ISMC mounting channels, GI earth busbar, busbar chamber ,cable alleys interconnection with solid bar/PVC insulated copper conductor as per requirement, and suitable supports of busbars. The panel shall be painted with two coats of enamel paint (Grey shade) over primer and shall also be provided with designation of Incoming and outgoing feeder as details below:				
	INCOMING				
	1 no MCCB Breaking Capacity 25 KA 160 Amp 4P , make L&T /ABB/Schneider				
	1 no 0 -500V digital Voltmeter in separate compartment and digital Amp meter and one set of CTs (3 Nos) with CT Ratio 200/5 A with LED type phase Indication Lamps with protection fuses in a separate compartment , make L&T /ABB/Schneider				
	200 Amps capacity 4 strips Aluminium bus bars.				
	OUTGOING				
	2 nos MCCB Breaking Capacity 10 KA 63 Amp 3P and 16 nos SPMCB with seprate neutral Link, make L&T /ABB/Schneider	1.00	set		
10	Supply, Installation, testing & commissioning of PVC insulated PVC sheathed armoured cable of 1100 V (IS ;1554 Part 1) and fixing of cable on wall with suitable size of clamps /saddles or laid in floor/recess wall including cutting of wall /floor and making good the damages etc complete as required of following sizes (ISI marked). (Make: Havells / KEI/Finolex/Pymen)				
a)	3.5 X120 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire	100.00	mtr.		
b)	3.5X50 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire	80.00	mtr.		

c)	3.5X25 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire (For Lighting DBs & Raw power DBs)	600.00	mtr.		
d)	4.0X10.00 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire (For VRV out door supply).	150.00	mtr.		
e)	3X6 sq. mm copper conductors armored cable with one Nos. 8 SWG GI wire (For UPS Supply only)	300.00	mtr.		
f)	3X2.5 sq. mm copper conductors armored cable	50.00	mtr.		
11	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium/Copper conductor cable of 1.1 kV grade as required.				
a)	3.5X120 sq.mm aluminum conductor	4.00	no.		
b)	3.5X 50 sq.mm aluminum conductor	15.00	no.		
c)	3.5X 25 sq.mm aluminum conductor	55.00	no.		
d)	4.0X 10 sq.mm aluminum conductor	15.00	no.		
e)	3X6 sq. mm Copper cable gland.	20.00	no.		
f)	3X2.5 sq. mm Copper cable gland.	30.00	no.		
	UPS DISTRIBUTION BOARD				
12	supply, installation, testing and commissioning of factory fabricated distribution board rust inhibited, powder coated sheet fabricated comprising of incoming and outgoing isolator and MCB's neutral link or neutral bus, top and bottom detachable entry earthing bolts interconnection and grouting bolts etc complete as reqd. Make: Havells/HPL/Standard/ Legrand/L&T. as per details below :-				
a	4 way DB comprising of 2 no. 63 amp DPMCB (UPS out put)	3.00	each		
b	4 way DB comprising of 1 no. 63 amp FPMCB (UPS in put)	1.00	each		
13	Supply, fixing and testing of following 3 pin metal clad industrial type plug & socket arrangement with plug top cap & chain controlled by 1 No. MCB (Make: Havells/HPL/Standard/ Legrand/L&T.)				
a)	20/25 amp with 20/25 amp SPMCB {3 for Branch UPS O/G }	4.00	no.		
b)	32 amp with 32 amp SPMCB { 3 for Branch UPS I/C }	3.00	no.		
14	Providing and laying following sizes of PVC insulated copper conductor cable of 1100 V in flexible/ PVC conduit pipe with accessories such as glands bends etc (as per requirement) including making necessary interconnection etc complete as required.				
	2 X 6 Sq mm with 1 no suitable insulated 2.5 sq mm multi stranded copper wire in PVC flexible pipe. (Make: Havells/ Polycab/Finolex)	20.00	mtr.		
15	Providing & fixing 16 S.W.G.M.S.sheet adaptor box, and also base frame for installation of M.C.B.D.B.s plug & socket arrangement and to cover cables in system room including painting etc. complete	1.00	sq.mtr.		
16	Sub Head - III - EARTHING				

	a)Supply and fix copper plate earth station with 600X600X3mm copper plate including all accessories such as watering pipe and funnel and providing masonry enclosure at top with cover plate i.e excavation of pit, supplying and filling of salt charcoal, refilling of pit etc complete as required as per IS 3043-1987. The voltage between neutral and earth must be below 1 V.	1.00	Sets		
	b)Supply and fix GI plate earth station with 600X600X6mm GI plate including all accessories such as watering pipe and funnel and providing masonry enclosure at top with cover plate i.e excavation of pit, supplying and filling of salt charcoal, refilling of pit etc complete as required as per IS 3043-1987.	2.00	Sets		
17	a)Supply fixing and termination of 20X3 mm copper strip with earth station below ground level etc as required.	5.00	Meter		
	b)Supply fixing and termination of 20X3 mm G.I strip with earth station below ground level etc as required.	10.00	Meter		
18	a)Providing and fixing of 8 SWG copper earth wire in the recess for loop earthing etc. as required.	80.00	Meter		
	b)Providing and fixing of 8 SWG GI earth wire in the recess for loop earthing etc. as required.	160.00	Meter		
19	Supply and laying following dia 2 mm in thickness ISI Mark PVC pipe under floor or in recessed walls from earth electrode to UPS room for computer dedicated earthing				
	25 mm diameter	240.00	Meter		
	Sub Head - IV - TELEPHONE & DATA CABLE				
20	Wiring for telephone points with 0.6 mm dia 2 pair insulated annealed tinned electrolytic copper conductor in 2 mm thick 25 mm dia ISI marked PVC conduit complete with accessories such as bends, junction boxes etc. with suitable size of G.I./PVC box modular plate and cover in front on surface or in recess including providing and fixing modular type telephone socket outlet and making necessary connections etc. complete as reqd. (Make: Dglink/KEI/Finolex)	50.00	no.		
21	Supply, installation and testing & commissioning of Tag Block 20 pair for telephone connections Make: krone	2.00	no.		
22	Providing , Laying, testing & commissioning of 10 pair telephone cable from outside govt. / bsnl DB to Rack for lease line, ISDN of Make: Delton, finolex, polycab.	100.00	mtr.		
23	Data cabling work for computer networking starting from mounting rack at system room with UTP CAT-6e LAN Data cable in 2mm thick 25 mm dia ISI mark PVC conduit with accessories such as bends, Tees, junction boxes including providing and fixing cat-6 I/O plates and SMB complete with all networking accessories etc complete as reqd. (Make: D-Link/MOLEX/AMP/COMMScope). Note: Only One Data Points to be provided in One Table/Counter. Extra points not to be paid if provided. Maximum 6 no. data cable must be run in one pvc pipe. (Extra Data points not to be provided as per bank's guidelines)	100.00	no.		
i	The work / above works includes all Kind of GI junction boxes of required sizes - 900 mm x 900mm / 600 mm x 600mm / 450 mm x 450mm / 300 mm x 300mm & other required sizes with SS cover plate.				
24	supply, installation, testing and commissioning of 24-port Patch Panel	5.00	no.		

25	Supply and installation, testing and commissioning of mounted rack 6U hight made of powder coated MS sheet	2.00	no.		
26	Supply and installation, testing and commissioning of mounted rack 12U hight made of powder coated MS sheet	2.00	no.		
27	supply, installation, testing and commissioning of factory manufactured CAT-6e patch chord complete with 2 no. connectors etc. complete as reqd.				
a)	1 mtr. long	100.00	no.		
b)	2 mtr. long	50.00	no.		
	TOTAL OF PART : I+II+III+IV (A)				
	Part - B				
	<u>Sub Head -V : LIGHTS & FANS FIXTURES</u>				
28	SITC of 2"x2" Ceiling grid 33-36 watt LED panel fixtures with essential driver in false ceiling including making necessary arrangement for mounting the fixtures and connection with 2 x 1.5 sq.mm insulated copper cable from adjacent point in PVC flexible pipe etc Complete as reqd. Make: Bajaj or equivalent of Philips / Wipro. 120 Lumens per Watt. Color temperature 6000K.	70.00	no.		
29	SITC of 15 watt LED fixtures /dowlighters with essential driver in false ceiling including making necessary arrangement for mounting the fixtures and connection with 2 x 1.5 sq.mm insulated copper cable from adjacent point in PVC flexible pipe etc complete as reqd. Make Phillips / Wipro / Bajaj.	100.00	no.		
30	SITC of 5 watt recess mounted LED down light (warm white) with assembly complete with including making necessary for mounting the fixtures and connection with 2 x 1.5 sq.mm insulated copper cable from adjacent point in PVC flexible pipe etc complete as reqd. (Make : Philips/Wipro/ Bajaj)	20.00	no.		
31	Focus Light - SITC of 15 watt LED fixtures Focus Light with essential required driver over false ceiling / surface mounted including making necessary arrangement for mounting the fixtures and connection with 2 x 1.5 sq.mm insulated copper cable from adjacent point in PVC flexible pipe etc complete as reqd. Make Phillips cat no. Neutral White (4000K) or equivalent of Wipro / Crompton.	10.00	no.		
32	SITC of 18 watt of T5 LED fixtures directly on ceiling / wall including making necessary connections with 2x1.5 sq.mm insulated copper cable conductor wire etc. complete as reqd Make; Phillips / Wipro / Bajaj.	30.00	no.		
33	Supply of 400/450 mm sweep Metal Body and Metal Blades Polar(or equivalent) SDX BLCK GOLD wall fan etc. 1325 rpm High Flow Mode complete as required. (M/s equivalent of Bajaj / Havells / Usha Orient / Crompton greaves)	30.00	no.		
34	SITC of 1200 mm BLDC CEILING FANS complete as reqd. with regulator to be provide in the switch board (M/s Crompton High Breeze or equivalent of USHA / Bajaj / Atomberg).	2.00	no.		

35	SITC of 200 mm exhaust fans complete with self opening louvers / shutters including necessary frame etc, complete as reqd. (M/s Crompton High Breeze or equivalent of USHA / Bajaj).	8.00	no.		
36	Supply Installation, testing & commissioning of LED Strip light (4.5/5 watt) of approved colour & shade (wharm white etc. for cove (M/s Phillips /Wipro / Bajaj / Crompton / Havles / Osram Complete in all respects with suitable drivers.	250.00	mtr		
	TOTAL OF PART : V (B)				
	TOTAL OF PART : I+II+III+IV (A)				
	TOTAL OF PART : V (B)				
	TOTAL AMOUNT (A+B)				
	Add GST @ 18% on Total as applicable				
	Note: The vendor have to provide LAN & cabling diagram & Taging / numbring of networking points shall be provided at both the ends after completion of the work along with the bill, without it payment will not be made.				