

Subject	Proposed Interiors / Renovation for State Bank of India Branch Office at Bhucho Mandi, Distt. Bathinda (P.B.). Branch				
	<b>Boq - Electrical</b>				
	<b>ITEM DETAILS</b>	<b>QTY.</b>	<b>UNIT</b>	<b>RATE</b>	<b>AMOUNT</b>
	<b>PART- A :</b>				
	<b>PART- I : PANELS , KIT KATS &amp; CABLES</b>				
1	Providing and fixing of 03 no 200 Amps KITKAT with 1 no neutral link on suitable size of Bakelite sheet of thickness not less than 12 mm complete as required	1.00	job		
2	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:	1.00	Set / Complete Job		
	<b>INCOMING</b>				
	1no., MCCB Breaking Capacity 36 KA 160 Amp 4P , <b>make L&amp;T /ABB/Schneider</b>				
	0 -500V rating 1 digital Voltmeter and 1 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 , <b>make L&amp;T /ABB/Schneider</b>				
	200 Amps capacity 4 strips Aluminium bus bars.				
	<b>OUTGOING</b>				
	1 no., MCCB Breaking Capacity 36 KA 125 Amp 4P, <b>make L&amp;T /ABB/Schneider</b>				
	2 no. MCCB Breaking Capacity 25 KA 100 Amp 3P, with seprate neutral Link, <b>make L&amp;T /ABB/Schneider</b>				
3	<b>EMERGENCY PANEL:</b> 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:	1	Set / Complete Job		
	<b>INCOMING</b>				
	1 no MCCB Breaking Capacity 36 KA, 125 Amp, 4P in separate compartment , <b>make L&amp;T /ABB/Schneider</b>				
	0-500v rating 1 digital Voltmeter and 1 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 <b>(make L&amp;T /ABB/Schneider</b>				
	200 Amps capacity 4 strips Aluminium bus bars.				
	<b>OUTGOING</b>				
	1 no, MCCB Breaking Capacity 25 KA 100 Amp 3P with seprate neutral Link in separate compartment, <b>make L&amp;T /ABB/Schneider</b>				
	4 no., MCCB Breaking Capacity 25 KA 63 Amp 3P with seprate neutral Link separate compartment, <b>make L&amp;T /ABB/Schneider</b>				

4	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). <b>(Make: Havells/Polycab/Finolex)</b>				
a)	3.5X50 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire	30.00	mtr.		
b)	3.5X35 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire	30.00	mtr.		
c)	3.5X25 sq. mm aluminum conductors armoured cable with two Nos. 8 SWG GI wire	150.00	mtr.		
d)	3X6 sq. mm <b>copper conductors armored cable</b> with one Nos. 8 SWG GI wire (For UPS Supply only)	80.00	mtr.		
e)	3X2.5 sq. mm <b>copper conductors armored cable</b> (For AC Supply - AC DB to metal clad box) (4-5 ups point from ups db to various location as identified by fire department)	80.00	mtr.		
5	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)	3.5X50 sq.mm aluminum conductor	4.00	no.		
b)	3.5X35 sq.mm aluminum conductor	6.00	no.		
c)	3.5X 25 sq.mm aluminum conductor	10.00	no.		
d)	3X6 sq. mm Copper cable gland.	8.00	no.		
e)	3X2.5 sq. mm Copper cable gland.	20.00	no.		
6	Supplying & fixing the <b>1 no.4 pole 200 Amps capacity change over switch</b> and complete connection with Electrical Panels as required. <b>Make: Havells/HPL/Standard/L&amp;T</b>	1.00	no.		
7	UPS DISTRIBUTION BOARD				
	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. <b>Make: Havells/Standard/ Legrand/L&amp;T.</b> as per details below :-				
a	4 way DB comprising of 2 no. 63 amp DPMCB (UPS out put)	3.00	each		
b	4 way TPNDDB Double Door comprising of 1 no. incoming 63 amp 4P MCB & 3 no. 32 DPMCB ( <b>UPS input</b> )	2.00	each		
8	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. <b>(Make: Havells/ Polycab/Finolex)</b>	20.00	mtr.		

9	i) Cost of maintaining & working 24 X 7 from date of commencement of work to date of completion. The work includes temporary shifting of Branch with in the building / premises as required including shifting of UPS's temporarily & after that permanently, required connections of UPS, networking & lighting & including dismanteling / removing of existing fixtures / all kind of electrical material complete. ii) The work includes removing & refixing as required of all conduits / wires / cables / all kind of electrical equipments, temporarily / permanently as required from the exterior façade & from the inside of the building before dismantling & plastering. The work including all type of lead / lift, shuttering & scaffolding for all heights & disposable / removal of malba to an unobjectionable place from the site.	1.00	Job		
	<b><u>PART-II : COMPUTER POINTS &amp; DISTRIBUTION</u></b>				
10a	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 ( <b>to be provided above the table top in partition</b> ) 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. (five points will be as per fire department) ( <b>Switches : Make: Anchor/Crabtree/North-West/MK</b> )	25.00	each		
11	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. <b>Make: Havells/Standard/ Legrand/L&amp;T</b>				
a)	8 way SPN MCBDB Double Door comprising of 1 No 63 Amp DP Isolator and 6 No SPMCB 10/16 Amp. ( <b>UPS output</b> )	2.00	no.		
b)	6 way SPN MCBDB comprising of 1 No 63 Amp DP Isolator and 4 No SPMCB 10/16 Amp. ( <b>UPS output</b> )	2.00	No		
c)	4 Way TP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 100 A FP TPN MCB and 12 Nos.25/32 A SPMCBS etc complete as required. ( <b>for Air conditioning only</b> ).	1.00	no.		
d)	4 WayTP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising with 30mA ELCB and 12 Nos. 6/10 Amp SPMCBS etc complete as required. ( <b>for Light, Fan point only</b> )	1.00	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. ( <b>for Raw Power Only</b> )	2.00	no.		
12	<b>RAW POWER:</b> 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. ( <b>Switches : Make: Anchor/Crabtree/North-West/MK</b> )	12.00	each		

13	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/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 )	10.00	no.		
b)	30 Amp with 32 Amp. DP MCB for Acs (for 2.0 TR Cassette AC's )	0.00	no.		
14	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		
15	<b>Basic electrical Wiring of light points, plug points</b>				
	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/Polycab/Finolex) (Switches : Make: Anchor/Crabtree/North-West/MK)				
	(Rate includes 3 x 2.5 sq.mm FRLS copper conductor, single core cable in PVC conduit for circuit/sub main wiring along with earth wire )				
a)	single 6 Amp Switch controlling 1 light point for required T-5, Cove light, exhaust Fans, Ceiling fan and other seprate room supply only.	30.00	no.		
b)	single 6 Amp Switch controlling 1 no. downlights / 4 no. LED downlight, 2 no. 2'- 0"x 2'-0" 36 watt light fittings, 2 no. 18 watt of required T5 LED fixtures light fittings.	20.00	no.		
c)	single 6 Amp socket controlling by 5 Amp Modular switch in switch boards complete as required.	10.00	no.		
d)	One switch controlled by one socket (independent for wall fan etc.)	10.00	no.		
e)	One 6amp, 5/6 pin socket controlled by one 6amp switch (to be provided on each seat/counter)	9.00	No		
	<b>Note: Lihgts/fans points to be calculated by numbers of lights and no extra cost shall be paid for dummy switch.)</b>				
16	<b>PART III - EARTHING</b>				
	a)Supply and fix <b>copper plate earth station</b> 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. The work includes supply, fixing and termination of 5M Length 20X3 mm size copper strip with earth station below ground level etc as required.	1.00	Sets		

	b)Supply and fix <b>GI plate earth station</b> 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. the work includes supply, fixing and termination of 5M Length 20X3 mm size G.I strip with earth station below ground level etc as required.	2.00	Sets		
17	a)Providing and fixing of 8 SWG copper earth wire in the recess for loop earthing etc. as required.	30.00	Meter		
	b)Providing and fixing of 8 SWG GI earth wire in the recess for loop earthing etc. as required.	40.00	Meter		
18	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	50.00	Meter		
	<b>PART IV - TELEPHONE &amp; DATA CABLE</b>				
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.( <b>Make: Dglink/polycab/Finolex</b> )	10.00	no.		
21	Supply, installation and testing & commissioning of Tag Block 20 pair for telephone connections <b>Make: krone</b>	1.00	no.		
22	Providing , Laying, testing & commissioning of 10 pair telephone cable from outside govt. / bsnl DB to Rack for lease line, ISDN of <b>Make: Delton, finolex, polycab.</b>	50.00	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 and ferling with printed plastic tag numbering on both end of the the network point/cable end etc complete as reqd. ( <b>Make: D-Link/MOLEX/AMP/COMMScope</b> ). <b>Note: Only two Data Points to be provided in One Table/Counter. Extra poitns not to be paid if provided.</b> Maximum 6 no. data cable must be run in one pvc pipe.	24.00	no.		
24	Supply, installation, testing and commissioning of 24-port Patch Panel	1.00	no.		
25	Supply and installation, testing and commissioning of mounted rack 15" high made of powder coated MS sheet	1.00	no.		
26	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	24.00	no.		
b)	2 mtr. long	12.00	no.		
	<b>PART-V : AIR CONDITIONING REFRIGERATION/DRAIN WORKS</b>				

27	Supplying & Laying of following COPPER REFRIGERANT PIPING Thickness 22 SWG For Air Conditioners units complete with fittings Suction / Discharge line insulated with 12 mm SUPERLON / ARMAFLEX suction line. Multi-runs between Indoor & Outdoor units shall be considered as ONE length for the purpose of measurement. <b>(Make: Total Line/Armacell)</b>				
a)	1/4" + 1/2" Refrigerant Copper piping - For Hiwall Split AC's (1.0Tr / 1.5Tr )	125.00	mtr.		
b)	5/8" + 3/8" Refrigerant Copper piping – For HWS/Cassette AC ( 2.0Tr / 3.0Tr)	0.00	mtr.		
28	Supplying & laying recessed in wall Rigid ISI Mark PVC drain pipe of size 25 mm / 32 mm dia complete with fittings, U traps etc. & as specified to the nearest toilet / drain point under floor or in recessed walls for AC drains including cutting of walls, bends & Tees. making good the damages etc. wherever required with 4mm insulation. <b>(Make: Diplast/Supreme/astral).</b>	90.00	mtr		
29	Supplying and providing Eletrical flexible FRLS Copper cable of 3 x 2.5 sq.mm multi strand suitable for 1.0Tr / 1.5 Tr H.W Split Multi-runs between Indoor & Outdoor units and for 1.0Tr / 1.5 Tr H.W Split / 2.00 Tr Cassette unit between Metal Clads to Out door / Indoor unit as per manufacturar, for electrical supply etc complete as required <b>(Make: Havells /Polycab/Finolex). (supply point to indoor/outdoor unit)</b>	125.00	mtr		
30	Supplying and providing Eletrical flexible FRLS Copper cable of 4 x 2.5 sq.mm multi strand suitable for 2.00 Tr Cassette Multi-runs between Indoor & Outdoor units complete as required <b>(Make: Havells / Polycab/Finolex). (indoor to outdoor)</b>	100.00	mtr		
	<b>PART- B :</b>				
	<b><u>PART-VI: LIGHTS &amp; FANS FIXTURES</u></b>				
31	SITC of 2"x2" Celing 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.	18.00	no.		
32	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. <b>Make Phillips / Wipro / Crompton.</b>	36.00	no.		
33	SITC of 5 watt recess mounted <b>LED down light ( warm white)</b> 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. <b>(Make : Philips/Wipro/ Crompton)</b>	4.00	no.		
34	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 <b>Make; Phillips / Wipro / Crompton.</b>	10.00	no.		
35	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 Havells / Usha/ Orient / Crompton greaves)	8.00	no.		

36	SITC of 1200 mm, 32-36Watt BLDC, CEILING fans complete as reqd. with regulator to be provide in the switch board (M/s Crompton or equivalent of USHA / atomberg).	2.00	no.		
37	SITC of 200 mm BLDC exhaust fans complete with self opening louvers / shutters including necessary frame etc, complete as reqd. (M/s Crompton or equivalent of USHA / atomberg)	5.00	no.		
38	LED <b>Rope light</b> (4.5/5 watt ) of approved colour & shade - wharm white for cove (M/s Wipro / Crompton / Havells / Osram Complete in all respects with suitable drivers.	110.00	MTR.		
39	SITC of 30 watt Street light /Flood light for lighting the front side of the branch(M/s Crompton or equivalent of Philips/Wipro .	2	no.		
40	SITC of Automatic Programmable Time Switch 24 Hour for Glow sign board and ATM AC's (Make: L&T or equivelent to Legrand/Havells/Seimens)	3	no.		
	Buyback of old material				
	TOTAL OF PART : I +II+III+IV+V (A)				
	TOTAL OF PART : VI (B)				
	<b>TOTAL AMOUNT (A+B)</b>				
	<b>Add contingencies @ 10% on Grand total</b>				
	<b>GST extra as per applicable</b>				
	Note: the vendor have to provide LAN diagram after completion of the work along with the bill, without it payment will not be made				