

<b>ESTIMATE FOR ELECTRICAL &amp; AC WORKS OF PUNJAB AND SIND BANK, BO-BRANCH &amp; ATM DERA BASSI.</b>					
SN.	DESCRIPTION OF ITEM	QTY.	UNIT	RATE	AMOUNT
	<b>PART- A</b>				
	<b>UPS &amp; RAW POWER POINTS</b>				
1	S & l of point wiring for UPS or stabilized power plug pointson workstations / table for computers using 3C X2.5 Sqmm Cu.PVC sheathed white color flexible cable pulled through already laid floor raceways/ Conduit pipe and taken upto table top using PVC rigid or flexible conduits run within wooden / metal partitions Each point consisting of 3 nos of 2/3 pin sockets & 1 no of 15A Switch , wired together forming one point . The earth wire to be of green color only (On UPS Power) (Make of switch/ socket L&T/LEGRAND/ HAVELLS)(Make of Wire-Havells/ polycab / pyemen)	12	Each		
2	As per item 1 above but with 1 no. 15 amp 3/5 pin modular socket controlled by 1 no. 15 amp <b>modular</b> switch with indicator.(On Raw point for general supply and for printer/ heater )(Make of switch/ socket L&T/LEGRAND/ HAVELLS)(Make of cable- Ecko / havells/ polycab /	2	Each		
3	<b>CONTROL AND DISTRIBUTION PANELS</b>				
	Providing and fixing 3 no. 100Amp kitkats (fuse carrier & base) with 1 no. neutral link on suitable size of Bakelite sheet of thickness not less than 6mm etc. complete as	1	Each		
4	<b>PANELS</b>				
	Supply, installation, testing & commissioning of wall mounted cubical type Power/Control electrical panel fabricated with 16/18 S.W.G. CRC sheet.Having individual compactors for Each switchgears.The panel shall be free standing type totally enclosed dust & vermin proof construction with rubber gaskets. The floor mounting panel shall have ISMC mounting channels, GI earth buss bar, bus bar chamber cable alleys interconnections with solid bar/PVC insulated copper conductor as per requirement, and suitable supports of bus bars. the panel shall be painted with 2 coats of enamel paint( gray shade ) over the primer and shall have be provided with designation of incoming and outgoing feeder as per details below:-				
4.1	Main Panel	1	set		
	<b>INCOMING</b>				
a	1 no125A, TPN MCCB breaking capacity 25 KA DN SERIES, L&T Make ( <b>Makes Standard/ indo Asian/ havells / HPL/L&amp;T</b> )				
b	1 No 100A, 4P Cubical Front Oprater Automatic Changeover Switch complete as				

	c	1no. 0-500V Digital multimeter in a separate compartment & Digital Ammeter and one set of CTs (3no.) with CT ratio 200/5 A with LED type indication lamps with protection fuses in separate compartment				
	d	1 set of 125 amp TPN strips aluminium bus bar with insulation heat sink sleeves of Size 32mmx6mm				
		<b>OUTGOING</b>				
	a	1 No, 100A, MCCB with suitable neutral link 1 No, 100amp 4P isolator and 6 no. 32 amp DP MCBs etc. complete as reqd. (For Ac				
	b	2 No, 100 A, MCCB with suitable neutral link 2 No, 63Amp 2P isolator and 12 no. 6-32 amp SP MCBs				
	c	1 No, 100A, MCCB with suitable neutral link 1 No, 63Amp MCB 4P and 6 no. 6-32 amp SP MCBs etc.				
	d	1 No, 63A, MCCB with suitable neutral link 1 No, 63Amp DP MCB and 10 No. 6-10 amp SP MCBs etc.				
5		Supply, installation, testing & commissioning of PVC insulated PVC sheathed Un armored 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 floor/wall and making good the damages etc. complete as reqd. following sizes:- <b>(Make- Ecko / havells/</b>				
	a	3.5 core x 35 sq.mm. Aluminium conductor with 2 no. 8 S.W.G. GI wire ( <b>From Main Panel to Kitkat, from kitkat to Changeover )</b>	10	R.Mtr.		
	b	3.5 core x 25 sq.mm. Aluminium conductor with 2 no. 8 S.W.G. GI wire ( <b>From panel to UPS panel and Changeover to Generator</b>	18	R.Mtr.		
	c	3 core x 6 sq.mm. copper conductor ( <b>From UPS room to</b>	45	R.Mtr.		
	d	3 x 2.5 sq.mm. copper conductor ( <b>For single phase ACs</b>	120	R.Mtr.		
6		End termination with brass compression glands including providing lugs/ferrules and making necessary connection etc. complete as reqd. following sizes: ( <b>Makes- HNI / BBI / Commet</b> )				
	a	3.5x35 sq.mm. Aluminium conductor	4	Each		
	b	3.5x25 sq.mm. Aluminium conductor	6	Each		
	c	3x6 sq.mm. Aluminium/copper conductor	4	Each		
	d	3 x 2.5 sq.mm. Aluminium/copper conductor	8	Each		
7		<b>UPS DISTRIBUTION BOARD</b>				
		Providing and fixing 16 S.W.G. MS sheet adapter box, and also base frame for installation of MCB DBs plug and socket arrangement and to cover cables in system room including painting	1	Sq. mtr.		

8	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. as per details below :-				
	(a) 4 way SPN DB comprising of 1 no. 63 amp TPN MCB ( for UPS input) <b>(L&amp;T/LEGRAND) Branch</b>	1	Each		
	(b) 4 way SPN DB comprising of 2 no. 63 amp DPMCB (UPS out put) <b>(L&amp;T/LEGRAND) ATM</b>	1	Each		
9	supply fixing, testing of following 3 pin metal clad industrial type plug & socket arrangement with plug top cap & chain controlled by 1 No. MCB <b>(Make-M.D.S /standard/ indo Asian/ havells / HPL)</b>				
	(a) 20/25 amp with 20/25 amp SPMCB( <b>For single phase Acs, Record room, Ups Output etc.</b> )	10	Each		
	(b) 30 amp with 63 amp TPNMCB ( <b>For UPS Input</b> )	3	Each		
	(c) 30 amp with 32 amp TPNMCB ( <b>For 3phase</b> )	1	Each		
10	providing and laying following sizes of PVC insulated copper conductor cable of 1100V in flexible/PVC conduit with accessories such as glands, bends etc. (as per requirement) including making necessary inter connection etc complete as reqd.				
	a) 2X6 sq.mm with 1 suitable PVC insulated earth wire	20	R.Mtr.		
11	<b>EARTHING</b>				
	(a) supply and fix copper plate earth station with 600x600x3 mm thick copper plate including all accessories such as watering pipe and funnel and providing masonry enclosure at top with cover plate i/c excavation of pit, supplying and filling of salt charcoal, refilling of pit etc complete as reqd as per IS-3043-1987. The voltage	1	set		
	(b) supply and fix G.I. plate earth station with 600x600x6 mm thick G.I. plate including all accessories such as watering pipe and funnel and providing masonry enclosure at top with cover plate i/c excavation of pit, supplying and filling of salt charcoal, refilling of pit etc	2	set		
	c) Supplying, fixing & termination of 20x3mm copper strip with earth station below ground level etc complete as	4.00	R.Mtr.		
	d) Supplying, fixing & termination of 32x6mm G.I. strip with earth station below ground level and on wall saddle	8.00	R.Mtr.		
12	Providing and fixing of 8 SWG copper earth wire in the	50	R.Mtr.		
13	Providing and fixing of 8 SWG GI earth wire in the recess	60	R.Mtr.		

14	Supply & laying 2mm thick 25 mm dia ISI mark PVC conduit pipe complete with accessories such as bends, junction boxes etc under floor or in recessed walls from copper earth electrode to UPS room for computer dedicated earthing, from GI earth electrode to main panel & UPS panel etc. wherever reqd. <b>Note:</b> flexible pipe not	100	R.Mtr.		
<b>COMMUNICATION</b>					
15	Networking for computer networking starting from mounting rack with UTP CAT-6 cable in 2mm thick 25 mm dia ISI mark PVC conduit with accessories such as bends, junction boxes including providing and fixing I/O plates and SMB complete with all networking accessories etc complete as reqd. <b>(Make LUCENT /HCL /IBM/ AMP/ KRONE/DLINK/</b>	10	Each		
16	Supply, installation, testing and commissioning of 24-port Patch Panel <b>(Makes LUCENT /HCL /IBM/ AMP/ KRONE/DLINK/ MOLEX</b>	1	Each		
17	New , installation, testing and commissioning of 24-port Patch Panel	1	Each		
18	Providing and Fixing ,Installation, testing and commissioning of mounted rack 15" height made of powder coated MS sheet	1	Each		
20	supply, installation, testing and commissioning of <b>factory made</b> patch cable CAT-6 complete with 2 no. connectors etc. complete as reqd.Makes <b>LUCENT /HCL /IBM/ AMP/</b>				
	(a) 1 mtr. long	10	Each		
	(b) 2 mtr. long	10	Each		
21	wiring for telephone points with 0.5 mm dia 2 pair insulated annealed tinned electrolytic copper conductor in 2mm thick 25mm dia ISI marked PVC conduit complete with accessories such as bends, junction boxes etc. with suitable size of G.I. 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>Makes Delta/ finolex /polycab) Note:</b> flexible pipe not to be used any where.	5	Each		
22	Supply & fixing of 30 pair FRP/PVC/Metal junction box with KRONE disconnection module necessary tag for identification <b>(Make-finolex/delton/polycab)</b>	1	Each		
23	supply, installation, testing and commissioning of 30 pair telephone unarmoured cable as required. <b>(Make-finolex/delton/polycab)</b>	25	R.Mtr.		

24	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular socket, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required..(Makes- Finolex / polycab / havells / skyline / pyemen) Including Wiring circuit/submain wiring along with earth wire with the following size of PVC single core FRLS copper conductor wire in 2mm thickness PVC pipe as required: Including cost of 2x2.5 sq mm + 1x1.5 sq mm earth wire (Makes-Finolex / polycab / havells / skyline / pyemen)				
a	One light point controlled by one switch	55	Each		
b	Two light point controlled by one switch	30	Each		
c	One plug point (Anchor /Crabtree / North-West / REO)	7	Each		
d	One switch controlled by one socket (independent for wall fan)	9	Each		
e	Supplying and fixing of 1 No.15 amp flush type 5 pin socket and 1 No. 16 amps switch cover plate, 5 sided G.I. Boxes for housing switches and sockets and earthing complete as required (for Power Point) GI Boxes to have earth pin for body earthing makes (Anchor /Crabtree / North-West / REO)Including the cost of wiring 2x2.5+1x1.5 FRLS. PVC insulated copper conductor single core cable etc as required.(Makes-Finolex / polycab / havells / skyline / pyemen)	5	Each		
25	Supply, installation, testing and commissioning of refrigeration pipe including cutting of wall and fixing with suitable saddles or clamps, providing suitable size of sleeves for passing refrigerant pipe from indoor to outdoor unit including making necessary arrangement etc. complete as required. (Makes-Mandev/ Total Line/				
	a) For High Wall A.C. (1.0 & 1.5 Tr) Copper pipe size (1/2" & 1/4")	90	R.Mtr		
26	Supply & fixing of hard pipe for drain complete with all accessories such as tee, bend cutting chases making good the damages and leak proof joints to avoid seepage in wall/floor etc. complete as required.				
a	25 mm dia	70	R.mtr		
27	Cutting of floor/wall for laying of refrigerant/drain pipe including making good the damages etc. complete as required (excluding the area having ceramic floor tiles, where the chased floor will be got repaired by the firm executing the A.C. work, however, ceramic tiles will be got fixed by the Bank.	70	R.mtr		

28	Supply and laying of 3 core 2.5 sq mm FRLS copper flexible cable (for single phase HWS AC) <b>Make: Finolex / Polycab / Havells / Pyemen / Ecko</b>	90	R.mtr		
29	SITC of 15 watt recess mounted <b>LED down lighter</b> with assembly complete with including making necessary connections etc. Complete as reqd.( <b>Philips/Wipro/ Bajaj</b> )	26	Each		
30	Supply and fixing of LED type fitting <b>20 watt, 4 feet (M/s Phillips or equivalent of Wipro/ bajaj)</b>	4	Each		
31	Supply and installation of Metal body <b>12" size medium duty exhaust fan model Drift Air. and louvr (Make:Crompton High Breeze/ usha / Bajaj</b> (Necessary framing, wall cutting & finishing to be done by Contractor)	2	Each		
32	SITC of 30 watt Street light /Flood light for lighting the front side of the Zonal Office ( <b>M/s Crompton Cat No. LSTS-30 CDL or equivalent of Philips /Wipro.</b> )	3	Each		
33	Supply,installation,Ceiling fan with regulator,hanging hook etc complete as reqd.with Extension rod	1	Each		
34	SITC of <b>450 mm sweep wall fan</b> complete as reqd. <b>METAL Body USHA Make or equivalent of Crompton/Havells /Bajaj</b> )	8	Each		
35	SITC -Ceiling Profile Ligth <b>Type TruGroove, Installation/mounting type Recessed, Color Temperature Tc (K) 3000 /3500/ 4000 Housing (Material And Finish) Extruded aluminum trim and die-cast endplates, System Wattage 20W, Classifications (IP/IK) IP20, 2" Inch Yellow Colour Cover (Glass/ PC) Poly carbonate, Electrical Class II,/ LED Lamps 240Nos/Mtr (LM26) 5 mtr roll with LED Driver lumens (Make IP Mac, Sanspa, Helius, )</b>	30	R.Mtr		
36	<b>P&amp;F 2'x2' LED Light , of make GE, Phillips, Wipro,Crompton, Bajaj or equivalent make.</b>	14	Nos		
37	Air conditoning following Supplying of following				
a	Labour for wall mouting wall spilt a.c 1.5/1.0 tan 3 star	5	Each		
b	P/f.New M.S outdoor stand	5	Each		
c	P/f. new Voltage Stablizer(4KVA)	5	Each		
38	30 AMP wiring from D.B. to site of outdoor A/C unit 4mm sq. multi stand PVC copper wire & metal clad enclosure sockets & plugs.	5	Each		
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	<b>Total - Part B</b>				
	<b>G.S.T as applicable will be paid extra by the bank</b>				

