

BILL OF QUANTITIES FOR ELECTRICAL, DATA, TELEPHONE & LIGHTING WORKS AT STATE BANK OF INDIA, REGIONAL BUSINESS OFFICE -II at LUDHIANA.					
S.No.	Item / Specifications	Qty.	Units	Rate	Amount
PART-I : COMPUTER POINTS & DISTRIBUTION					
1.1	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 complete as required including 3X2.5 sq. mm copper armored cable, including termination & glands complete. Note: Maximum two computer points are to be provided on one circuit. (Switches : Make: Anchor/Crabtree/North West/MK	90	each		
1.2	As per item 1 above but with 3 no. 15/16 amp 6 pin modular sockets controlled by 1 no. 15/16 amp modular switch with indicator including the cover plate. (to be provide on top of each table) two point on one circuit from MCB DB)(for network rack)	4	Each		
1.3	RAW POWER: Supply all material, storing, handling, fixing of supply points in suitable size of GI/PVC box including providing 2 nos 15/16 amps 6 pin modular sockets under table top which is controlled by 1 no 15/16 A, moduler type switch with indicator to be provided above table top with moduler cover plate etc complete as required including 2X2.5+1x1.0 sq. mm FRLS copper wire in 25mm dia PVC conduit complete. Maximum two points are to be provided on one circuit. (on top of each table/counter)(independent circuit from MCB DB to a the supply point)(two in PM cabin)	45	Each		
1.4(a)	RAW POWER: Supply all material, storing, handling, fixing of supply points in suitable size of GI/PVC box including providing 1 nos 5 amps 5 pin modular sockets controlled by 1 no 5 A moduler type switch with indicator to be provided above table top with moduler cover plate etc complete as required including 2X1.5 sq. mm+1x1.0sq. mm copper flexible wire in 25mm dia PVC conduit complete. (independent circuit from MCB DB to a the supply point)	49	each		
1.4(b)	RAW POWER: Supply all material, storing, handling, fixing of supply points in suitable size of GI/PVC box including providing 1 nos 15 amps 5 pin modular sockets controlled by 1 no 15 A moduler type switch with indicator to be provided under table top with moduler cover plate etc complete as required including 3X2.5 sq. mm copper flexible cable in 25mm dia PVC conduit complete. (independent circuit from MCB DB to a the supply point)	0	each		
1.5	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
a)	2 X 6 sq. mm + 1 X 2.5 sq. mm earth wire	30	Mtr		
1.6	POINT WIRING:				
	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/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 T-5, Wall Fans, exhaust Fans , Ceiling fan and other seprate room supply only	17	no.		
b)	single 6 Amp Switch controlling 2 no. LED downlight / 1 no. 2'- 0"x 2'-0" 36 watt light fittings	75	no.		
c)	single 6Amp socket controlling by 5Amp Modular switch in switch boards etc complete as required	10	no.		
d)	Primary wall fan point including 5Amp 3-pin socket, controlled by 5Amp switch	22	no.		

	Note: Lights/fans points to be calculated by numbers of lights and no extra cost shall be paid for dummy switch.)				
1.7	DISTRIBUTION BOARDS				
	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				
a)	12-way SPN MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 63 A DP Isolator and 10 Nos. 6/10 A MCBS etc complete as required.	3	no.		
b)	6-way SPN MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 63 A DP Isolator and 4 Nos. 6/10 A MCBS etc complete as required.	1	no.		
b)	8-way SPN MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 63 A DP Isolator and 6 Nos. 6/10 A MCBS etc complete as required.	2	no.		
d)	6 way SPN MCBDB Double door comprising 1 no 40 A Isolator and 4 Nos. 6/10 A MCBS.	0	no.		
e)	4 way SPDB comprising 1 no 63 A Four Pole TPNMCB (for UPS INPUT).	1	no.		
f)	4 way DB comprising of 2 nos 63A DP MCB (UPS OUTPUT)	3	no.		
g)	LIGHTING DB: 4 Way (8module+12) TPN MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 63A 4P 30mA ELCB, 1 no. 63Amp, 4P isolator and 12 Nos. 6/10 Amp SPMCBS etc complete as required. (for Light, Fan point, Raw power points).	2	no.		
h)	RAW POWER DB: 4 WayTP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 63 A FP TPN and 12 Nos. 16/20/25 Amp SPMCBS etc complete as required. (for Raw Power Only)	1	no.		
i)	4 strip bus bar with encloser for with minimum current capacity of 100amp, 415 volt, with 100amp, 4pole isolator complete as required.(with minimum 6 no. of connection points)	2	no.		
j)	Removing existitng power DBs and Installation testing and comissioning of the same at old/new location complete as required	1	Job		
1.11	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	job		
1.12	Cost of maintanng & working 24 X 7 from date of commencement of work to date of completion.	1	Job		
1.1	Tracing and marking, labeling of all the cables/wires/DBs/panels from the existing panel room/DG set room at ground floor to all the floors of the building (Ground+three floors), removal of extra old cables, wires, DBs, Power factor panel etc. and all other electrical items/appliances	1	Job		
	TOTAL OF PART -I				
	PART-II : PANELS & CABLES				
2.1	Providing and fixing of 3 nos 200 Amps Kitkat with 1 no neutral link on suitable size of Bakelite sheet of thickness not less than 25 mm complete as required	0	job		
2.2	MAIN PANEL:				

A	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				
	Already 630amp, 4P MCCB is avialble with the bank and te same is to be utilised as main incomer (only cost of main mccb with the panel is to be incorporated by the bidder.) (space in panel is to be made available to fix the MCCB)				
	1 no 0 -500V digital Voltmeter in separate compartment and digital Amp meter and one set of CTs (3 Nos) with CT Ratio 800/5 A with LED type phase Indication Lamps with protection fuses in a separate compartment				
	800 Amps capacity 4 strips (10mmx100mm) Aluminium bus bars.				
	OUTGOING				
	2 nos MCCB Breaking Capacity 36 KA 250 Amp 4P, 3 nos 100amp 3p, 25ka mccb, 2 nos 160amp 3p, 25ka mccb with seprate neutral Link, L&T make.	1.00	set		
B	EMERGENCY 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 200 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				
	200 Amps capacity 4 strips Aluminium bus bars.				
	OUTGOING				
	3 nos MCCB Breaking Capacity 25 KA 100 Amp 3P and 4 nos MCCB Breaking Capacity 25 KA 63 Amp 3P with seprate neutral Link, L&T make.	0	set		
2.3	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 (GI marked)				
a)	3.5X120 sq. mm aluminium conductors with two Nos. 8 SWG GI wire. (main switch to main panel)	20	mtr.		
b)	3.5X95 sq. mm aluminium conductors with two Nos. 8 SWG GI wire. (main panel to emergency panels)	30	mtr.		
c)	3.5X70 sq. mm aluminium conductors with two Nos. 8 SWG GI wire. (panel to emergency panels)	50	mtr.		
d)	3.5X25 sq. mm aluminium conductors with two Nos. 8 SWG GI wire.	45	mtr.		
e)	4x16 sq. mm aluminium conductors with two Nos. 8 SWG GI wire.	50	mtr.		
f)	4X10 sq. mm aluminum conductor with one no 8 SWG GI wire.	0	mtr.		
g)	3X6 sq. mm copper conductor armoured .	90	mtr.		
h)	4x25 sqmm copper armoured cable with two 8SWG GI wire (AC panel/ main panel to outdoor unit)	1	mtr.		
i)	4x16 sqmm copper armoured cable with two 8SWG GI wire (AC panel/ main panel to outdoor unit)	65	mtr.		
j)	3X2.5 sq. mm copper conductor armoured	75	mtr.		
2.4	End termination with brass compression glands including providing of				
a)	3.5X95/120 sq. mm aluminium conductors	2	no.		
b)	3.5X50/70 sq. mm aluminium conductors	6	no.		
c)	3.5X25 sq.mm aluminum conductor	6	no.		
d)	4x16 sq. mm aluminum conductors	6	no.		
e)	4X10Sq.mm aluminum conductor	2	no.		

f)	3X6 sq. mm copper conductor	4	no.		
f)	4X25 sq. mm copper conductor	4	no.		
g)	3X2.5 sq. mm copper conductor	12	no.		
2.5	Providing and fixing the following switch on suitable size of MS base and angle iron frame of suitable size and strength for installation on wall /floor including grouting of frame & painting etc. complete as required .				
	1 no.4 pole 250 Amps capacity change over switch with adaptor box	1	no.		
2.6	Providing and fixing 16 G MS sheet adopter box and also base frame for installation of MCB DBs plug and socket arrangements and to cover cables in system room including painting etc complete as required.				
	for UPS input/output distribution	1	no.		
TOTAL OF PART -II					
PART-III : EARTHING					
3.1 (a)	Supply and fix copper plate earth station with 600X600X3mm copper plate with 5M length 20x3mm size copper strip below Ground Level, 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.	3	set		
(b)	Supply and fix GI plate earth station with 600X600X6mm GI plate with 5M length 20x3mm size GI strip below Ground Level 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	set		
3.2 (a)	Providing and fixing of 8 SWG copper earth wire in the recess for loop earthing etc. as required.	65	mtr.		
(b)	Providing and fixing of 8 SWG GI earth wire in the recess for loop earthing etc. as required.	20	mtr.		
3.3	Supply and laying following dia 2 mm in thickness PVC pipe under floor or in recessed walls from earth electrode to UPS room for computer dedicated earthing including bends Tees Etc. making good the damages etc. wherever required.				
	25 mm diameter	65	mtr.		
3.4	SITC of copper bonded lightning arrester with minimum specification of 14mm diameter, 1meter in length, 4 spikes, Base plate 92x92mm and connected it with boundry earthing GI Strip., complete in all respect	1	no.		
3.5	SITC of 20x3mm SIZE GI Strip on boundary wall of the roof and connecting the same with Lightening arrester and earthing plate	120	mtr.		
TOTAL OF PART -III					
PART-IV : TELEPHONE.					
4.1	Wiring for telephone points with 0.6 mm dia 2 pair insulated annealed tinned electrolatic 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. 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.	45	no.		
4.2	Supply installation and testing of Tag Block 20 pair for telephone connections with krone box/encloser	3	no.		
4.3	Supply and fixing 20 Pair Telephone Cable	60	mtr		
	Providing, supplying, laying, fixing and terminating 25 mm dia heavy-duty PVC conduit (ISI marked) for routing of optical fibre cable for telephone / data connectivity, including all required accessories such as tees (T), bends, couplers, nipples, junction boxes, clamps, saddles, fasteners, cutting, pipe end stopper, chasing, drilling, refilling, surface restoration and making good the disturbed areas, complete in all respects as per site requirement and direction of Engineer-in-Charge.				

4.4	Bends shall be used instead of sharp angles to maintain minimum bending radius of optical fibre cable. (Acceptable Make- supreme, diplast, astral).One single continuous pipe circuit shall cater to a maximum of ten (10) seats only. Each pipe circuit shall be terminated at one single designated termination point only as define in the drawings provided by project architect. Rate must included floor and wall cutting and its repair	100	mtr.		
	TOTAL OF PART - IV				
PART-V : NETWORKING					
5.1	Wiring for computer net working starting from mounting rack with UTP Cat 6 cable in 2 mm thick 25 mm dia ISI marked PVC conduit pipe with accessories such as bends, junction boxes including providing and fixing I/O plates and SMB complete with all networking accessories etc complete as required with numbering/ferling on both end of networking cable with pvc cable wire marker/label tags, cable tags etc. (maximum 5 cat-6 cable in one pvc pipe)	90	No		
5.2	Supply & Installation testing and commissioning of 24 port Patch Panel, complete in all respects.	1	No		
5.3	Supply & Installation testing and commissioning of mounting rack 15 U high made of powder coated MS sheet complete.	1	No		
5.4	Removing existing Patch panel and installation, testing and comissioning of the same at new/same location as required and complete in all respect	1	no.		
5.5	Removing existing Rack panel and installation, testing and comissioning of the same at new/same location as required and complete in all respect	1	no.		
5.6	Supply Fixing and commissioning of Patch cable cat 6 of complete with 2 nos of connectors etc complete as required.(factory manufactured)				
	(a) 1 meter long	90	No		
	(b) 2 meter long	48	No		
5.7	SITC of Cat-6 cable for interconnection of racks and servers with Required RJ-45, 25mm PVC pipe, bends etc. complete as required	100	mtr		
	TOTAL OF PART - V				
PART-VI : SITC OF FANS & FIXTURES					
6.1	SITC of 2"x2" Celing grid 36 watt full glow 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 : Cat No: CRCO10R036HP57G3 of WIPRO or equivalent of Havells /Philips (Color temperature 5700K)	37	no.		
6.2	SITC of 2'-0" x2'-0" FIXTURE 33W (WIPRO : VERGE LN 29 /LM 29 - 451-XXX-57-XX) 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.equivalent of Philips / Bajaj / Crompton. Note: No additional payment will be made for providing frame/ hanging for light fixing in Gypsum ceiling.Also, no extra proce will be paid for any change in light color temprature or body color)	1	no.		
6.3	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 cat no. DN - 192 - 1000 or equivalent of Wipro / Havells	90	no.		
6.4	SITC of 9watt RECESS MOUNTED LED down light with assembly complete with including making necessary connections etc. Complete as reqd. (M/s Crompton Cat No. Or equivalent of Philips/Wipro/ Havells) in PASSAGE	12	no.		
6.5	SITC of 450/400 mm sweep metal body wall fan complete as reqd.(M/s Crompton Metal frame or equivalent of Crompton Greaves (Quantity may increase or decrease as per bank's requirement)	1	no.		
6.6	SITC of Exhaust Fan 250mm dia, metal body with self opening metallic louvers/shutters of appropriate size of window, complete in all respect. (Crompton Greaves/Crompton/Usha)	2	no.		

6.7	SITC of 1200 mm,32W, 350rpm BLDC CEILING fans complete as reqd. with regulator to be provide in the switch board (M/s Orient Zeno BLDC or equivalent of USHA / Atomberg).	1	no.		
6.8	Supply of recess 5/7 watt LED COB spotlight assembly with driver complete as reqd. Phillips ASTRASPOT 7W or equivalent of Wipro / Crompton	8	no.		
6.9	Supply Installation, testing & commissioning of 5W LED STRIP light with driver and Accessories complete as required (MS CROMPTON or equivalent of WIPRO , PHILLIPS	45	mtr		
6.10	SITC of 15 watt Hanging LED down light (WIPRO : HALO+ /LD 99 - 151-XXX-57SMWH) with assembly complete with including making necessary connections etc. Complete as reqd. (M/s Crompton Cat No. Or equivalent of Philips/ Bajaj) Note: No additional payment will be made for providing frame/ hanging for light fixing in Gypsum ceiling.Also, no extra proce will be paid for any change in light color temprature or body color)	4	no.		
6.11	SITC of 6 watt LED 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 Jaquar RENE :LRNE01S006XN equivalent of as per selection	10	no.		
6.12	SITC of 10 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 Jaquar cat no. IRL-BLK-LCYN01R010SN or equivalent of Wipro / Crompton	6	no.		
6.13	SITC of 22 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/Crompton.	6	no.		
6.14	BUY BACK (All the old DB, wires, cables, light fixtures included in Buy back except for the material in good condition and that can be reused, plastic Wall Fan, PF panel, ceiling fan, plastic Exhaust fan and LED Lights. Also , if the existing material in good condition is to be included in buy back , prior approval from Bank is recommended) etc.	1	Lumsum		
6.15	Buy BACK of 1.5Ton SPlit AC(No extra cost will be provided for removing, the buyback item) (Bank Decision will be final whether the item is to be given in buyback or not and quantity may increase or decrease as per bank requirement.	3	no.		
6.16	Buy BACK of 1.5Ton Window AC(No extra cost will be provided for removing, the buyback item) (Bank Decision will be final whether the item is to be given in buyback or not and quantity may increase or decrease as per bank requirement.	1	no.		
6.17	SITC of timmer for Exhaust fan in UPS room	1	no.		
	TOTAL OF PART -VI				
	SUMMARY				
	TOTAL OF PART I-V(A)				A
	TOTAL OF PART - VI (B)				B
	TOTAL (A+B)				C