

BILL OF QUANTITIES FOR ELECTRICAL, LIGHTING & DATA NETWORKING WORKS AT STATE BANK OF INDIA, JASUR BRANCH (H.P)

S.No.	Item / Specifications	Qty.	Units	Rate	Amount
PART-I : COMPUTER POINTS & DISTRIBUTION					
1.1	Supply all material, storing, handling, fixing and laying of 3X2.5 Sq. mm. 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 for computer points in suitable size of box fabricated with 16 G MS sheet including providing 3 nos 5 amps 3 pin sockets controlled by 1 no 5 A modular type switch, indicator and fuse mounted on 3 mm thick ISI marked hylam sheet and painting of box etc complete as required Note; max. two computer points are to be provided on one circuit.	32	each		
1.2	As per item 1 above but with 1 Nos. 15 A 5 pin socket controlled by 1 no 15 A switch and indicator.(ON RAW POWER)	16	each		
1.3	As per item 1 above but with 2 Nos. 15 A 5 pin socket controlled by 1 no 15 A switch and indicator.(ON UPS POWER)	3	each		
1.4	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 for UPS input & Out[ut supply	30	Mtr		
1.5	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, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. <u>including circuit wiring with 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire</u> as required.(Ht. upto 4.5mrts from floor)				
A	1 no. light controlled by 1 no. switch	40	no		
B	2 no. light controlled by 1 no. switch	55	no		
C	5/6 pin 6 amp plug point with 6 amp switch	15	no.		
D	Primary Wall fan point controlled by 5 AMP socket controlled by 5amp switch	10	no.		
E	1 no. 15Amp 5 Pin Socket controlled by 1 no. 15 Amp. Switch for Record /Cash/Gold Safe Room	5	no.		
1.6	Supply installation testing and commissioning of 3 pin 20/25 A 3 pin metal clad industrial type plug and socket arrangement with plug top, cap and chain controlled by 1 no 32 A SP MCB.(1.5 TR Acs) Note: Independent circuit for AC point is to be provided starting from distribution system.	7	each		
1.7	Supply installation testing and commissioning of 3 pin 30A 3 pin metal clad industrial type plug and socket arrangement with plug top, cap and chain controlled by 1 no 32 A DP MCB.(For 2 TR Acs) Note; Independent circuit for AC point is to be provided starting from distribution system.	5	each		
1.8	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.	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.	1	no.		
c)	4 way SPDB comprising 1 no 63 A Four Pole TPNMCB (for UPS).	1	no.		
d)	4 way SPDB comprising of 2 nos 63A DP MCB (for UPS).	2	no.		
e)	4 Way TP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 100 A 4P Isolator and 6 Nos. 32 A DPMCBS etc complete as required. (AC DB)	2	no.		
f)	4 Way TP MCBDB Double Door in recessed wall including cutting of wall and making good the damages comprising 1 no 100 A 4P Isolator and 12 Nos. 6-32 A SPMCBS etc complete as required.(LIGHT /POWER Dbs)	2	no.		
1.9	Supply installation testing and commissioning of following 3 pin metal clad industrial type plug and socket arrangement with plug top, cap and chain controlled by 1 No MCB				
(a)	20 Amps. with 20 Amp. SP MCB.	4	no.		
(b)	30 Amps. with 32 Amp. SP MCB.	3	no.		
1.10	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		
	TOTAL OF PART -I				
PART-II : PANELS & CABLES					
2.1	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		
2.2	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:				
	INCOMING				
	1 no MCCB Breaking Capacity 25 KA 200 Amp 4P , Model-DU250 Series,				
	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				
	200 Amps capacity 4 strips Aluminium bus bars.				
	OUTGOING				
	1 nos MCCB Breaking Capacity 25 KA 160 Amp 3P and 2 nos MCCB Breaking Capacity 25 KA 100 Amp 3P with seprate neutral Link, DU Series, L&T make.	1	set		

2.3	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 25 KA 160 Amp 4P , Model-DU250 Series,				
	1 no 0 -500V digital Voltmeter in separate compartment and digital Amp meter and one set of CTs (3 Nos) with CT Ratio 150/5 A with LED type phase Indication Lamps with protection fuses in a separate				
	200 Amps capacity 4 strips Aluminium bus bars.				
	OUTGOING				
	6 nos MCCB Breaking Capacity 25 KA 63 Amp 3P with seprate neutral Link, DU Series, L&T make.	1	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 (ISI marked)				
a)	3.5X50 sq. mm aluminum conductors with two Nos. 8 SWG GI wire	70	mtr.		
b)	3.5X35 sq. mm aluminium conductors with two Nos. 8 SWG GI wire.	20	mtr.		
c)	3.5x25 sq. mm aluminium conductors with two Nos. 8 SWG GI wire.	45	mtr.		
d)	4X16 sq. mm aluminum conductor with one no 8 SWG GI wire.	80	mtr.		
e)	3X6 sq. mm copper conductor armoured .	70	mtr.		
f)	3X2.5 sq. mm copper conductor armoured for ACS	20	mtr.		
2.4	End termination with brass compression glands including providing of lugs/ferrules and making necessary connection etc complete as required of the following sizes:				
a)	3.5X 50 sq. mm aluminum conductors	5	no.		
b)	3.5X 35 sq. mm aluminum conductors	4	no.		
c)	3.5X25 sq. mm aluminum conductors	10	no.		
d)	4X16sq.mm aluminum conductor	8	no.		
e)	3X6 sq. mm copper conductor	6	no.		
f)	3X2.5 sq. mm copper conductor	26	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 .				
a)	1 no.4 pole 200 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 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	set		
(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	set		
3.2 (a)	Supply fixing and termination of 20X3 mm copper strip with earth station below ground level etc as required.	3	mtr.		
(b)	Supply fixing and termination of 32x6 mm G.I. strip with earth station below ground level etc as required.	6	mtr.		
3.3 (a)	Providing and fixing of 8 SWG copper earth wire in the recess for loop earthing etc. as required.	40	mtr.		
(b)	Providing and fixing of 8 SWG GI earth wire in the recess for loop earthing etc. as required.	40	mtr.		
3.4 a)	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..				
	25mm	80	mtr.		
	TOTAL OF PART -III				
PART-IV : AC PROVISIONING (COPPER PIPE, WIRING ETC)					
4.1	Supply, Installation, testing & commissioning of refrigeration pipe including cutting of wall & fixing with suitable saddles or clamps, providing suitable sizes of sleeves for passing refrigerant pipe from indoor to outdoor unit including making necessary arrangement etc. complete as required.				
a)	Hi Wall Split AC (1.0 & 1.5TR), copper pipe size (1/2" & 1/4")	140	mtr.		
b)	HWS / Cassette AC (2.0TR & 3.0TR) copper pipe size (5/8" & 3/8")	110	mtr		
4.2	Supplying & laying recessed in wall Rigid ISI Mark PVC drain pipe of size 20mm 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. (Make: Diplast/Supreme)	90.00	mtr		
4.3	Supply & laying of 4 core 2.5sq.mm. FRLS copper flexible cable for HWS / Cassette AC, Make - FINOLEX / POLYCAB / HAVELLS / PYEMEN / ECKO	150	mtr		
4.4	Supply & laying of 3 core 2.5sq.mm. FRLS copper flexible cable for HWS AC, Make - FINOLEX / POLYCAB / HAVELLS / PYEMEN / ECKO	280	mtr		
	TOTAL OF PART - IV				
PART-V : TELEPHONE , CCTV & SMOKE DETECTOR WIRING					
5.1	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. 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.	14	no.		
5.2	Supply installation and testing of Tag Block 20 pair for telephone connections	1	no.		
	TOTAL OF PART - V				
PART-VI : NETWORKING					

6.1	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	32	No		
6.2	Removal & Re-installation of existing Switch,Patch panel & Rack as per approved layout (from old/existing branch)	1.00	Job.		
6.3	supply, installation, testing and commissioning of 24-port Patch Panel	1.00	no.		
6.4	Supply and installation, testing and commissioning of mounted rack 15 U height made of powder coated MS sheet	1.00	no.		
6.5	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	32	No		
	(b) 2 meter long	16	No		
6.6	Supply and laying of CAT 6 cable in PVC conduit of suitable size with connectors as required., complete in all respects.	30.00	mtr		
	TOTAL OF PART - VI				
PART-VII : SITC OF FANS & FIXTURES					
7.1	SITC of 2'-0" x2'-0" 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 Philips cat. RC 380 B- LED-30-6500PSE OD WH or equivalent of Wipro / Bajaj / Crompton. Note: No additional payment will be made for providing frame for light fixing in Gypsum ceiling.	34	no.		
7.2	SITC of 15 watt 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/ Bajaj)	87	no.		
7.3	SITC of 5 watt 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/ Bajaj)	12	no.		
7.4	Supply of 450 mm sweep metal body wall fan complete as reqd. Model turbo 180, USHA Make or equivalent of Crompton/Havells/Bajaj	10	no.		
	(M/s Crompton Hi-Flo or equivalent of Khaitan / Bajaj				
7.5	SITC of Exhaust Fan 12inch dia, m etal body of CROMPTON / BAJAJ /KHAITAN	5	no.		
7.6	Supply Installation, testing & commissioning of 5W LED STRIP light with driver and Accessories complete as required (MS CROMPTON or equivalent of WIPRO , PHILLIPS, BAJAJ etc.	40	mtr		
7.7	SITC of 18 /20 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 cat no. DN - 192 - 1000 or equivalent of Wipro / Bajaj.	11	no.		
7.8	SITC of 30 watt Street light /Flood light for lighting the front side of the branch(M/s Crompton Cat No. LSTS-30-CDL or equivalent of Philips/Wipro .	2	no.		
	TOTAL OF PART -VII				
PART-VIII : CREDIT OF OLD MATERIAL					
8.1	Existing old wiring including old tube lights,Switches, computer point Sockets,MCB DBs Cables and wires , Panels, Changeover (work also includes removal from the premises i.e. old/existing branch).	1	Lumpsum		

	No LED Light Fittings & fans are not part of Credit Item (all lights to be re-used in Branch)				
	The work includes removing of complete old wiring as directed, ensuring there is no hindrance to branch working and removing the old stuff to contractors own dump.				
	No electrical/data/telephone point shall be removed prior to Branch Head approval. NO CCTV/Smoke Detectoes/fire alarms to be removed				
NOTE:	Dismantaling of existing connections, temporary re-arrangements of UPS points /Data Points/Light Points/Tel Points for smooth working of branch during renovation works will have to be done by the executing agency.				
	<u>SUMMARY</u>				
	TOTAL OF PART I-VI(A)			A	
	TOTAL OF PART - VII (B)			B	
	TOTAL OF PART - VIII ©			C	
	TOTAL (A+B- C)				