

**BILL OF QUANTITIES OF ELECTRICAL WORK AT STATE BANK OF INDIA BRANCH
AT MARANDA, PALAMPUR (HP)**

S. No.	Item	Quantity	Units	Rate	Amount
1	<u>SUB HEAD 1 (COMPUTER POINTS AND DISTRIBUTION)</u>				
	<u>Computer Points</u>				
1.1	Supply all materials, receiving, storing, handling, fixing and laying 3 x 2.5 sq.mm PVC insulated copper conductor armoured cable and fixing of cable on wall with suitable size of clamps/saddles or laid in floor or recessed wall including cutting of floor/wall for computer points with suitable size GI Box with modular plate and cover in front including providing and fixing 3 no. 5 amp 5 pin modular sockets controlled by 1 no. 5Amp switch with indicator, connection end terminations with suitable size of glands etc. complete as required. (Only two points can be connected in series with single cable) 3 points for CM Cabin, and 2 per Seat	18.00	Each		
ii	As per item 1 above but with 2 no. 16 amp 5 pin modular sockets controlled by 1 no.16 amp modular switch and 6 amp indicator Lamp including the cover plate. (2 Point in ATM 2 Point near Rack) (UPS Power)	4.00	Each		
iii	As per item 1 above but with 1 no. 16 amp 5 pin modular sockets controlled by 1 no.16 amp modular switch and 6 amp indicator Lamp including the cover plate.(Raw Power)	11.00	Each		
1.2	<u>Point Wiring:</u>				
	Supply and Installation of Points for Wiring for Lights, Exhaust Fans with 2 x 1.5 sq.mm + 1 x 1sq.mm FRLS copper conductors from Switchboard to outlet or fixture/fixtures, including the modular switches and plates. Including the cost of the PVC 2mm thick copper conduits and ceiling rose. Including wiring from DB to Switchboard @ 2x2.5sqmm+2.5sqmm				
i	1 no. light controlled by 1 no. switch	20.00	Each		
ii	2 no. light controlled by 1 no. switch	16.00	Each		
iii	5/6 pin 6 amp plug point with 6 amp switch	6.00	Each		
iv	Primary Wall fan point controlled by 5 AMP socket controlled by 5amp switch	6.00	Each		
v	1 no. 15Amp 5 Pin Socket controlled by 1 no. 15 Amp. Switch & 3PIN 15Amp Top top Record /Cash/Gols Safe Room	3.00	Each		
vi	1 no. light controlled by 1 no. switch (UPS Supply)	2.00	Each		
	<u>Distribution Box</u>				
1.6	Supply Installation, testing & commissioning of factory fabricated distribution board rust inhibited, powder coated Sheet fabricated comprising of incoming & outgoing isolator & M.C.B's neutral link or neutral bus,top and bottom detachable entry earthing bolts Interconnection and grouting bolts etc complete as reqo. as per details below:-				
i	12 way SPN DB Double Door comprising of 1 no. 63 amp DPMCB "C"Series and 10 no. 6/10amp SPMCB's "C" SERIES. (for the UPS points only two points shall be connected with one MCB) (For UPS Points)	1.00	Each		
ii	4 way TPND DB Double Door comprising of 63 Ampere 4 Pole Isolator and 12 nos. 10-20 amp SPMCB C Series. (For Light & Power Points)	2.00	Each		
iii	4 way TPND DB Double Door comprising of 1 no. 63 Ampere 4 Pole Isolator and 6 nos. 25-32 amp DPMCB "C" Series. (For AC Points)	1.00	Each		
1.7	UPS DISTRIBUTION 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 DB comprising of 1 no. 63 amp 4 pole TPN MCB (for UPS input)	1.00	Each		
b)	4 way DB comprising of 2 no. 63 amp DPMCB (UPS out put)	2.00	Each		
1.8	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				
i	20/25 amp with 20/25 amp SPMCB (4 to UPS Rm)	4.00	No		
ii	20/25 amp with 20/25 amp SPMCB (for 1.0 & 1.5 Ton AC)	5.00	No		
iii	30 amp with 63 amp SPMCB (For UPS Room)	3.00	No		

S. No.	Item	Quantity	Units	Rate	Amount
1.9	Providing & fixing suitable size of MS box fabricated with 16 S.W.G.M.S. 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 5mm backalite sheet on base connector strip and painting of box etc complete as reqd.	1.00	Job		
	TOTAL SUB-HEAD -1				
2	SUB HEAD 2(PANELS & CABLES)				
2.1	Providing & fixing 3 No. 100 amp kitkats (fuse carrier & base) with 1 no. neutral link on suitable size of backalite sheet of thickness not less than 6 mm etc. complete as reqd.	1.00	Job		
	MAIN PANEL				
2.2	Supply at site installation, testing & commissioning of panel fabricated with 16 S.W.G.M.S. sheet. 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, G.I. earth bus 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 (grey shade) over the primer and shall also be provided with designation of incoming & outgoing feeder as per details below-	1.00	Set		
	Incoming				
a)	125 amp MCCB 4 pole with 25 KA breaking capacity at 415 Volts (L&T Make DN Series)				
b)	1 set of 160 amp TPN aluminium busbar chamber				
c)	1 no. 0-500 V Voltmeter with selector switch in a separate compartment and amp meter with selector switch and one set of CTs (3 no.) with CT ratio 100/5 A with LED type indication lamps with protection fuses in a separate compartment				
	Outgoing				
d)	5 No. 63 amp 3 pole MCCB switch with separate neutral link. (MCCB'S With 25KA BREAKING CAPACITY at 415 Volts. L&T make DN series).				
	CABLES				
2.3	Supply, installation, testing & commissioning of PVC insulated PVC sheathed armoured cable of 1100 V (IS-1554 part I) 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. of following sizes:-				
i	3.5 x 25 sq.mm. aluminium conductor with 2 no. 8S.WG.G.1. wire	35.00	Mtr		
ii	4 x 10 sq.mm. aluminium conductor with 1 no. 8 S.WG.G.1. wire	15.00	Mtr		
iii	3 x 6 sq.mm copper conductor (for UPS DB)	15.00	Mtr		
iv	3 x 2.5 sq.mm. insulated copper conductor (AC Distribution)	70.00	Mtr		
2.4	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.				
	12 X 6 sq. mm + 1 X 2.5 sq. mm earth wire for UPD input and Output Supply	30.00	Mtr		
2.5	End termination with Brass compression glands including providing lugs/ferrules and making necessary connections etc. complete as reqd. of following sizes:-				
i	3.5 x 25 sq.mm. aluminium conductor with 2 no. 8S.WG.G.1. wire	8.00	Each		
ii	4 x 10 sq.mm. aluminium conductor	6.00	Each		
iii	3 x 6 sq.mm copper conductor	2.00	Each		
iv	3 x 2.5 sq.mm. insulated copper conductor	8.00	Each		
2.6	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.		
2.7	Providing & fixing suitable size of angle iron frame suitable for installation on wall/floor including grouting of frame & painting etc. complete as reqd. comprising of the following:				

S. No.	Item	Quantity	Units	Rate	Amount
i	1 No.4 pole 160 amp capacity changeover switch	1.00	Job		
	TOTAL SUB -HEAD 2				
3	<u>SUB-HEAD 3 (EARTHING)</u>				
3.1	Supply & fix copper plate earth station with 600x600x3mm thick copper plate including Sign Board and all other accessories such as watering pipe & funnel and providing masonry enclosure at top with cover plate i/c excavation of pit supplying & filling of salt charcoal, refilling of pit etc complete as reqd as per IS 3043-1987. The voltage between neutral & earth must be below 1 volt.	1.00	Set		
3.2	Supply & fix G.I. plate earth station with 600x600x6mm thick G.I. plate including Sign Board and all other accessories such as watering pipe & funnel and providing masonry enclosure at top with cover plate i/c excavation of pit, supplying & filling of charcoal, refilling of pit etc complete as reqd as per IS 3043-1987 (for the neutral earthing from the point of neutral link beside the fuse connection and second for the body earthing connected to both the panel body and the ups base panel)	2.00	Set		
	NOTE: chamber for the Both earthing shall be available at site without it the earthing cost shall not be paid for all the Earthings. You are also required to provide picture of earthing taken at the time of execution of the same alongwith earthing Value.				
3.3	Supplying and laying 20 mm X 3 mm copper strip at 0.50 meter below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required	3.00	Mtr		
3.4	Supplying, fixing & termination of 32 mm X 6 mm GI strip with earth station below ground level and on wall saddle etc complete as reqd.	6.00	Mtr		
3.5	Providing & fixing 8 S.W.G. Cu earth wire on surface or in recess for loop earthing etc. as reqd.	25.00	Mtr		
3.6	Providing & fixing 8 S.W.G G.I. earth wire on surface or in recess for loop earthing etc. as reqd.	25.00	Mtr		
3.7	Supply & 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, for data cabling, electrical cabling etc. including providing 1 no. G.I. pull wire for data cabling making good the damages etc. wherever reqd.				
i	25mm	50.00	Mtr		
	TOTAL SUB -HEAD 3				
4	<u>SUB HEAD 4 (NETWORKING & TELEPHONE)</u>				
4.1	Wiring for computer networking starting from mounting rack with UTP CAT-6 cable in 2 mm thick 25mm 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.	20.00	No		
4.2	Supply, installation, testing and commissioning of 24-port Patch Panel	1.00	No		
4.3	Supply installation. testing and commissioning of mounted rack 9U height made of powder coated MS sheet and all the required accessories.	1.00	No		
4.4	Supply, fixing and commissioning of patch cable Cat-6 complete with 2 no. connectors etc. complete as reqd.				
i	1m long	20.00	No		
ii	2m long	9.00	No		
iii	Supply, fixing and commissioning of cable Cat-6 complete with 2 no. connectors or as required etc. complete as reqd including upvc 19mm dia. pipe conduit of heavy duty.	20.00	Mtr		
4.6	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.	8.00	No		
4.7	Supply, fixing and commissioning of 20 pair tag block for telephone points. (box and strips Krone make)	1.00	No		

S. No.	Item	Quantity	Units	Rate	Amount
4.8	supply, installation, testing and commissioning of 20 pair telephone unarmored cable as required. (Make-Finolex/Delton/Polycab)	30.00	Mtr		
	TOTAL SUB -HEAD 4				
5	<u>AIR CONDITIONING WORK FOR SPLIT AC's</u>				
5.1	Supplying & Laying of following COPPER REFRIGERANT PIPING Thickness 22 SWG For Hiwall Split AC 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. (Make Total Line/ Armacell)				
a)	1/4" + 1/2" Refrigerant piping - For Hiwall Split AC (1Tr & 1.5 Tr)	65.00	mtr.		
5.2	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)	35.00	mtr		
5.3	Supplying & laying of Electrical flexible cable of 3x2.5sq.mm multi strand suitable for 2.0 Tr H.W Split , 1.5 Tr H.W Split & 1.00 Tr H.W Split unit between Indoor & Outdoor units shall be considered as ONE length for the purpose of measurement. (Make : Havells/RR Kable/ KEI/ Finolex)	70.00	mtr		
	TOTAL SUB -HEAD 5				
6	<u>SUB HEAD 6 (FANS & FIXTURES)</u>				
6.1	Supply, Instalation, testing & cominssioning of 36 watt. LED fitting Crompton greaves (or equivalent) LCTRLN-36-FO-CDL complete as required	14.00	No		
6.2	Supply, Instalation, testing & cominssioning of 15 watt. LED fitting Crompton greaves (or equivalent) LSDRMN-15 W-CDL complete as required	26.00	No		
6.3	Supply, Instalation, testing & cominssioning of 450 mm sweep wall fan Metallic study construction complete as reqd. (M/s Crompton SDX Black Gold or equivalent of Khaitan /Bajaj/ Orient)	6.00	No		
6.4	Supply, Instalation, testing & cominssioningof following Batten type LED fitting 18 watt LCTL-18-CDL OF CROMPTON OR EQUIVALENT OF PHILIPS/WIPRO complete as reqd.	16.00	No		
6.5	Supply, Instalation, testing & cominssioning of 250 mm (sweep) exhaust fans Metal Body complete with self opening louvers/shutters etc. complete as reqd. (USHA / Bajaj)	3.00	No		
6.6	Supply, Instalation, testing & cominssioning of LED Strip light (4.5/5 watt) for cove (M/s Phillips /Wipro / Bajaj Complete in all respects with suitable drivers	35.00	Mtr		
	TOTAL SUB -HEAD 7				
	TOTAL SUB-HEAD-1				
	TOTAL SUB-HEAD-2				
	TOTAL SUB-HEAD-3				
	TOTAL SUB-HEAD-4				
	TOTAL SUB-HEAD-5				
	TOTAL SUB-HEAD-6				
	TOTAL FOR SUBHEAD 1 TO 6				
	DISCOUNT IF ANY				
	NET AMOUNT AFTER DISCOUNT				
NET AMOUNT IN WORDS:-					