

STATE BANK OF INDIA
SCHEDULE OF WORKS : ELECTRICAL WORKS
PROJECT : PETARBAR BRANCH & ATM
UNDER RBO BOKARO, A.O. DHANBAD

SR.	ITEM DESCRIPTIONS	UNIT	QTY.	RATE	AMOUNT
1	Supplying, laying, lugging, glanding, testing & commissioning of PVC insulated aluminium armoured 1.1 KV grade 3.5 core cable of following size with making proper trench/support as per IS specification and complete with all respect as per the instruction of Engineer-In-Charge				
A	3.5 core 70 sqmm cable	MTR.	50		
B	3.5 core 35 sqmm cable (from Panel to AC /UPS TPN MCB DB)	MTR.	120		
2	<p>MAIN INCOMING SOURCE PANEL (MISP) : Supply, installation, testing and commissioning of main incoming (MIP) Panel suitable for wall /floor mounted indoor type, air insulated, totally enclosed vermin-proof (IP 42), dead front, cubicle type, 2 mm thick sheet steel enclosure use on 415 V, 3 Ph., 4 wire, 50 Hz. A.C. system, instrumental panel, CTs, incoming and outgoing cable compartment. The Panel shall be complete with switches as per site requirement, interconnection, G.I. earth busbar of adequate size covering the total length of switch board with drilled holes, G.I. bolts, nuts, washers etc. as directed by E-I-C. The cubicle should be painted with two coats of light grey synthetic enamel paint over two coats of zinc chromate primer. The complete fabrication, construction shall be done as per the site condition and conforming to the relevant IS. Name plate of Panels Danger Board, incoming and outgoing feeders with Ampere rating of switches are to be fixed up on front door above or below the respective switches. Approval of Manufacturer's drawings from E-I-C. The work shall include dismantling work as required of old panel. The Panel consists of the following</p> <p>INCOMING : 1 No. 415V, 200A 4P MCCB (35 KA); 1 No. 415V, 160A 4P On-Load Changeover Switch; 1 No. : Digital Multi Function Meter (MFM) for Current, Voltage, Frequency, Power; 3 Nos.: LED Phase indicating lamps; 3 Nos.: Suitable CTS, 2 sets of PVC sleeved TPN Tinned Copper Busbar 200 Amp. for phases and neutral; G.I. EARTH BUSBAR 25mm x 3mm covering the total length of panel.</p> <p>OUTGOING : Termination I: (To be connected with Change Over) (i) 1 No. 63 A (25KA) 4P MCCB for E-lobby/ATM supply (ii) 3 Nos. 63A (10 KA) TPN MCB (iii) 6 Nos. 32-63A (10 KA) DP MCB for UPS Incoming, BM AC, System AC & LDBs etc. Termination-II: (Not to be connected with Change Over) (i) 3 Nos. 63A (25KA) 4P MCCB for ACDB</p>	NO.	1		
3	<p>(A) UPS INCOMING DB: Supply of all required materials and fixing of input UPS box (Company made) having provision of the following arrangement complete. Incoming: 1 No. 63A (25KA) TPN MCB Outgoing: 3 Nos. 63 A (10KA) DP MCB</p>	NO.	1		
	<p>(B) UPS OUTGOING DB: Supply of all required materials and fixing of output UPS box (Company made) having provision of the following arrangement complete. Incoming: 1 no. 63 A DP MCB Outgoing: 4 No. 40A (10KA) DP MCB</p>	NO.	1		
4	<p>ACDB / RAW POWER DB/ LIGHT DB / COMPUTER DB Supply and installation of following metallic double door MCB Distribution Board with MCB having breaking capacity of 10 KA (minimum) complete with busbar, interconnection, painting, mounted on flat iron frame on wall/flushed with finished wall by chase cutting, mending good to original finish painting etc. as required. Name plate & number of DBs are to be fixed up on front door of DBs for their identification.</p>				

A	ACDB & RPDB: Consumer unit TPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 415V 63A (10KA) TPN MCB OUTGOING : 12 Nos. 240V 32A (10 KA) SP MCB	NO.	4		
B	CDB : Consumer unit SPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 415V 32A (10KA) DP MCB OUTGOING : 8 Nos. 240V 10A (10 KA) SP MCB	NO.	3		
C	LDB : Consumer unit SPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 415V 32A (10KA) DP MCB OUTGOING : 8 Nos. 240V 16A (10 KA) SP MCB	NO.	3		
5	Machine/Computer Raw Power/UPS/AC/ power point wiring as mentioned in rows below in MS conduit of IS specification of proper size with all material supply installation and commissioning complete from DB .The wiring shall be carried out on surface above false ceiling by chiseling the existing surface and plastering the same with cement etc., or as cutting of tiles(with finishing) after fixing the MS conduit with all accessories like saddles screws, bends T-joint etc. 2 coats of painting Matching to the surface including supply installing, testing, commissioning of modular plate type switch and socket for computer terminal on sheet steel enclosure (cadmium plated),duly fitted with screw to the steel conduit and fixed to the wall partition furniture with all interconnection and proper earthing .All the opening shall be covered with blank plate and be sealed to make the box vermin proof.				
A	With 2 nos. 6 Sq.mm + 1 no. 2.5 Sq.mm. PVC insulated copper wire.	MTR.	160		
B	With 2 Nos. 4 Sq.mm. + 1 No. 2.5 Sq.mm. PVC insulated copper wire.	MTR.	150		
6	(A) COMPUTER SOCKET OUTLET WITH WIRING Computer socket outlet cluster point including supply and fixing of modular type socket outlet clusters components and its wiring from CDB, complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 5 Nos. 6/10A 5 pin modular type International sockets 1 No. 16A modular type common controlling switch with indicator on table top with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point.	NO.	7		
	(B) COMPUTER SOCKET OUTLET AND ITS WIRING Computer socket outlet cluster point including supply and fixing of modular type socket outlet clusters components complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 3 Nos. 6/10A 5 pin modular type International sockets 1 No. 16A modular type common controlling switch with indicator on table top with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire (1.1 KV grade FRLS/FR-LSH) in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from CDB to Computer point. (proper colour code must be followed)	NO.	5		
	C) RAW POWER SOCKET OUTLET AND ITS WIRING Raw power socket outlet cluster point including supply and fixing of modular type socket outlet clusters components AND WIRING 1100V grade, FRLS complete in all respect as detailed below. Each computer socket outlet cluster comprising the following 2 Nos. 16/20A 5 pin modular type International sockets. 1 No. 16/20A modular type controlling switch with 2 Nos. 2.5 Sq.mm. + 1 x 1.5 Sq.mm. (green colour for earth) PVC insulated copper wire in pre - laid (as per ISI) M.S. conduit including interconnection, painting etc. as required to be completed in all respect from RPDB to Raw Power Outlet. Proper colour code must be followed.	NO.	7		
7	Supply & fixing of Company made approved metal clad socket with 25A SP MCB / modular type 20A Socket & Top with indicator with 25A SP MCB.	NO.	10		
8	Supply & fitting of 3 nos 200 A Porceline kit kut on suitable size of wooden board including connection etc. as required	Set.	1		

9	(a). Copper plate Earthing: Supply of material and installation of earth electrode made out of 50mm dia class B G.I. pipe of 2.5 metre long with arrangements for fitting./termination of copper wire with G.I. nut bolts, washers and 600x600x3 mm size copper plate including cost of charcoal salt and good quality soil, water pouring arrangements, brick masonry enclosure on top with removable CI cover and complete with labour for excavation of pit conforming of IS: 3043/1987 and as per direction of Engineer-in-charge.	NO.	2		
	(b) Supply of materials, laying under ground/walls/floor, making end termination and testing of 2x6 mm multistrand copper wire to be inside PVC. Conduit cables laid from Copper earthing pit to UPS Outgoing DB.	MTR.	80		
10	(a) Chemical Earthing: Supply of material and installation of earth electrode made out of 50mm dia outer shell & 25mm dia innershell of 80-100 microns galvanised chemrod filled with highly conductive mettalic compoung with permanent sealing at both ends with the lead terminal of 32mmX10mm size at the top of pipe in pipe of 3.5 metre long with arrangements for fitting/termination of G.I. flats/wire with G.I. nut bolts and washers including cost of backfill compound and good quality soil, water puring arrangements, brick masonry enclosure on top with removable CI over complete with labour for excavation of pit conforming to IS: 3043/1987 and as per direction of Consultant or Engineer-in-charge	NO.	1		
	(B) Supply of materials, laying under ground/walls/floor making end termination and testing of G.I. flat (25x3mm) laid from Chemical earthing pit to main panel as per direction of E-I-C	MTR.	40		
11	POINT WIRING: Point wiring with 1100 V grade 3 nos. single core 1.5 sq.mm. and 1 for common earth by looping method) PVC insulated stranded copper conductor wire (IS:694) through suitable size M.S. conduit (ISI marked embossed on conduit surface) by thred cutting, complete with junction box, circular box, elbows, bends, couplers and other accessories on surface above false ceiling or concealed by chase cutting on wall from light & fan switch board to light, fan & 6A socket outlet on the same switch board or separately mounted switch board. The work includes supply and fixing of all materials such as modular type 6A switch for light and fan point, 6A 2/3 pin shuttered socket outlet with switch in each switch board, 3 plate ceiling rose / angle or batten holder etc. as required. The point wiring also includes circuit wiring with 1100 V grade 2 nos. single core 2.5 sq.mm. + 1 no. single core 1.5 sq.mm. PVC insulated stranded copper conductor cable (IS:694) through suitable size M.S. conduit as described above from DB to switch board, interconnection, mending good all damages to original finish, painting etc.				
A	1 Light control by 1 switch	NO.	90		
B	Glow sign board wiring	NO.	2		
C	Wall Fan wiring with 3 pin socket	NO.	8		
D	Exhaust fan point	NO.	3		
E	Ceiling fan point with supply and fixing of Electronic Regulator (2 module step, 120 watt rating)	NO.	2		
F	1x16A 2/3 pin modular socket with switch on separate switch board outside the Cash Room, Locker Room and Stationary Room complete with wiring.	NO.	4		
G	3 pin 6/10A modular socket with switch in each board	NO.	10		
12	Supply and fixing of ding-dong calling bell with complete wiring in BM's Chamber.	NO.	1		
13	Supply & Fixing of 36W-2'x2' LED Panel light recessed mounted of Syska / Phillips / Wipro / CG / HPL / Mescab / Century make complete with all accessories. Syska cat no. SSK-PAB-6060-B of lumens >3000.	NO.	20		
14	Supply & Fixing of 15W LED Downlighter recessed mounted of Syska / Phillips / Wipro / CG / HPL / Mescab / Century make complete with all accessories.	NO.	40		
15	Supply & fixing of 18W LED T5 Batten fitting Syska / Phillips / Wipro / CG / HPL complete with all respect.	NO.	5		
16	Supply & fixing of 35W LED Street Light with suitable mounting pipe & CFL Lamp etc. of Syska / Phillips / Wipro / CG / HPL complete in all respect	NO.	3		

17	Supply & fixing of 9W LED bulb Syska / Phillips / Wipro / CG / HPL in UPS Toilets complete.	NO.	5		
18	Supply & fixing of wall fan 450mm 3 pin standard metal body complete with all respect(make polar orient CG havells usha Mascab)	NO.	8		
19	Supply & fixing of Exhaust fan complete with all respect. (Make: Polar, Orient, CG, Havells, Usha,Mascab)	NO.	3		
20	Air Conditioners :- Supply and installation of Split Type 1.5 tonne capacity Air-Conditioners (5 Star, inverter) of (Voltas/Blue star / hitachi / carrier / o-general / LG / Panasonic) including 4 KVA automatic stabiliser of v guard/Sen & Pandit and fixing of outdoor units with steel stand all accessories complete in all respect.	NO.	6		
21	Supply & installation of Extra copper pipe with insulation for split ACs if required.	MTR.	15		
22	Supply & installation of Extra drain pipe for Split ACs if required.	MTR.	15		
23	Supply of 2 mtr. Long E-CAT 6 PATCH CHORD (Make: D-LINK, AMP, HCL, Legrand, DIGISOL)	NO.	12		
24	Supply & installation of 9U Rack with power supply arrangement ventilation fan, mounting rack etc. Complete with all accessories (Make:VLRACK.Legrand,HCL)	NO.	1		
25	Supply & fixing of BLDC Ceiling fan complete with all respect.(Make: Bajaj/Polar,Orient,CG, Havells, Usha, Mascab)	NO.	2		
26	Supply and laying of E-CAT 6 UTP cable for the Data Circuit through the PVC conduit, Rate to include for termination on both end or as directed by E-I-C. (MAKE- D-LINK, AMP, HCL, DIGISOL)	MTR.	300		
27	Supply and fixing of information outlet box suitable for RJ 45 terminals including mounting box (PVC) & top cover, to be fixed a concealed manner in partition by necessary bolts & nuts or as directed at site. (MAKE- D-LINK, AMP, HCL, DIGISOL)	NO.	12		
28	Supply and installation of 40 Amp. 240/250V Double Pole Change over switch Havells make on suitable size of iron clamp including connections etc. as required.	NO.	2		
RS.(Total in word):- EIGHT LAKH SEVENTY EIGHT THOUSAND ONE HUNDRED ONLY/-			TOTAL		

NOTE:-

***All safety norms, I.S.Code, I.E.Rules must be followed. In case of any confusion please**

*** Rate are inclusive of transportation charge etc. but exclusive of GST.**

**Manager (E.E)
A.O. RANCHI**