

**SBI INFRA MANAGEMENT SOLUTIONS PVT LTD (SBIIMS)**  
**(WHOLLY OWNED SUBSIDIARY OF SBI)**  
**CIRCLE OFFICE, PATNA**  
**SCHEDULE OF WORKS: ELECTRICAL WORKS**  
**PROJECT: LODHMA BRANCH**  
**UNDER RBO CHAIBASA, AO RANCHI**



**Contractors are advised to read the specifications carefully and follow the make list. For Earthing product certificate is mandatory.**

NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<b>ELECTRICAL</b>				
1	Supplying, laying, lugging, glanding, testing & commissioning of PVC insulated aluminium armoured 1.1 KV grade 3.5 core cable of following size with 1no 10 swg GI wire with making proper trench/support as per IS specification and complete with all respect as per the instruction of Engineer-In-Charge				
1.1	<b>3.5CX50 SQMM cable Main incoming cable</b>	Mtr.	<b>80</b>		
1.2	<b>3.5CX 35 SQMM cable incoming cable for ACDB</b>	Mtr	<b>25</b>		
2.1	<p><b>MAIN INCOMING SOURCE PANEL (MISP) :</b>            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 Panel consists of the following</p> <p><b>INCOMING :</b>            1 No. : 415V, 125A 4P MCCB (35 KA), Ics=100% for Main Line ,            1 No. : 415V, 125A 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(100/5)            PVC sleeved TPN Tinned Copper Busbar(2 sets)            35mm x 6mm for phases and neutral.  <b>G.I. EARTH BUSBAR</b>            25mm x 3mm covering the total length of panel.</p> <p><b>OUTGOING :</b>  <b>Termination I: (To be connected with C.O.)</b>            2 Nos DP 25A MCB for BM &amp; System Room AC, 2 Nos 32 A DP for LDB/ RPDB , 1 Nos 32A DP MCB Spare, 1 Nos 63A TPN MCB(10KA) for UPS            1 No. 63A (25KA) 4P MCCB SPARE</p> <p><b>Termination-II: (Not to be connected with C.O.)</b>            1 no 63A 4P MCCB (25 KA) for ACDB, 1 Nos 63A TPN MCB(10KA) spare</p>	SET	1		
3.1	<b>(A) UPS INCOMING DB:</b> Supply of all required materials and fixing of input UPS box (Company made) having provision of the following arrangement complete with all respects per the direction of engineer in charge. <b>Incoming:</b> 1 No. 63A (25KA) TPN MCB <b>Outgoing:</b> 3 Nos. 63 A (10KA) DP MCB	No.	1		
3.2	<b>(B) UPS OUTGOING DB:</b> Supply of all required materials and fixing of output UPS box (Company made) having provision of the following arrangement complete with all respects per the direction of engineer in charge. <b>Incoming:</b> 1 no. 63 A DP MCB <b>Outgoing:</b> 4 No. 40A (10KA) DP MCB	No.	2		
4	<b>ACDB / RAW POWER DB/ LIGHT DB / COMPUTER DB</b> 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.				

(a)	<b>ACDB</b> : Consumer unit TPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 415V 63A (10KA) FP MCB OUTGOING : 12 Nos. 240V 32A (10 KA) SP MCB	No.	1		
(b)	<b>CDB</b> : Consumer unit SPN MCB DB complete with busbar and the following MCBs. INCOMING : 1 No. 240V 32A (10KA) DP MCB OUTGOING : 8 Nos. 240V 10A (10 KA) SP MCB	No.	3		
©	<b>LDB / RPDB</b> : 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	<b>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.</b>				
A	With 2 nos. 6 Sq.mm + 1 no. 2.5 Sq.mm. (green colour for earth) PVC insulated copper wire in ms conduit for UPS Outgoing to UPS O/G DB/LDB/RPDB/CDB (1.1 KV grade FRLS/FR-LSH)	Mtr	180		
B	With 4 nos. 6 Sq.mm + 1 nos. 2.5 Sq.mm. (green colour for earth) PVC insulated copper wire in M.S Conduit (1.1 KV grade FRLS/FR-LSH)	Mtr	80		
C	With 2 nos. 2.5 Sq.mm + 1 nos. 2.5 Sq.mm. (green colour for earth) PVC insulated copper wire in M.S Conduit	Mtr	50		
D	With 2 nos. 4 Sq.mm + 1 nos. 2.5 Sq.mm. (green colour for earth) PVC insulated copper wire in M.S Conduit (1.1 KV grade FRLS/FR-LSH)	Mtr	50		
6	<b>(A) COMPUTER SOCKET OUTLET WITH WIRING</b> 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 <b>6 Nos. 6/10A 5 pin modular type International sockets</b> <b>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.</b>	No.	9		
	<b>(B) COMPUTER SOCKET OUTLET AND ITS WIRING</b> 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 <b>3 Nos. 6/10A 5 pin modular type International sockets</b> <b>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)</b>	No.	4		
	<b>(C) RAW POWER SOCKET OUTLET AND ITS WIRING</b> 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 <b>2 Nos. 16/20A 5 pin modular type International sockets.</b> <b>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.</b>	No.	6		
	<b>(C) UPS/ RAW POWER SOCKET OUTLET AND ITS WIRING</b> 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 <b>1Nos. 16/20A 5 pin modular type International sockets.</b> <b>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 DB to UPS/RAW Power Outlet. Proper colour code must be followed.</b>	No.	4		

7	SITC of North-west/Legrand/Crabtree make AC power unit having 20A, single pole rating socket, MCB with plug, plug top & starter in sheet steel enclosure at proposed AC locations at 4.5 ft from the floor. The work shall also include Wiring from DB for AC power point with 2X4 sq. mm 1100V grade FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 2.5 sq. mm 1100V FRLS PVC insulated copper conductor single core cable for loop earthing as required	No.	8		
9	(a). <b>Copper plate Earthing:</b> 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.	1		
	(b). <b>B) Chemical Earthing:</b> 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.	2		
10	SITC of Earth distribution Box (Bus Bar Station) to be installed in the branch near Main Panel and UPS, comprising of a bus bar of 3x25x180mm cu strip .	SET	2		
11	SITC of Surge Protection Device to be fixed at UPS input Supply, OBO Betterman /PHOENIX/DHEN make and specifications equivalent to as V25-B+C/3 + NPE- FS-320, Class B+C SPD FOR power line protection(sub DB level), Uc:320V in suitable enclosure and necessary interconnection as required.	No.	1		
12	Supply and laying of 8 SWG Cu cotton coated wire in 20mm dia rigid PVC conduit for earthing From the existing earth pit to the Main panel/UPS	Mtr.	100		
13	<b>POINT WIRING</b> 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 <b>M.S. conduit</b> (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 <b>modular type</b> 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 <b>M.S. conduit</b> 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.	35		

B	2 Light control by 1 switch	No.	14		
C	Glow sign board wiring	No.	1		
D	Exhaust fan point	No.	4		
E	Ceiling fan point with supply and fixing of Electronic Regulator ( 2 module step, 120 watt rating) with hanging hook, rod as required as per site conditions.	No.	4		
F	1x16A 2/3 pin modular socket with switch on separate switch board outside the Cash Room complete with wiring. Suitable Top to be provided for supply to Cash Room. /RECORD ROOM/STATIONERY ROOM	No.	3		
G	Wall fan point with socket	No.	16		
H	3 pin 6/10A modular socket with switch Board	No.	6		
I	UPS light points	No.	6		
14	Supply and fixing of ding-dong calling bell with complete wiring in BM's Chamber as per direction of E-I-C	No.	1		
15	<b>MAIN TPN SFU:</b> Supply, installation, testing and commissioning (SITC) of following TPN SFU with HRC fuses in sheet steel enclosure with cable end-box on MS Angle Frame/ MS Legs/ wall with interconnection, painting and finishing.				
	<b>125 A TPN SFU with HRC fuses</b>	No.	1		
	<b>PART B-SUPPLY AND FITTING OF ELECTRICAL FITTINGS</b>				
16	Supply & Fixing of 36W-2'x2' LED Panel light recessed mounted of Syska / Phillips / Wipro / CG/HPL make complete with all accessories. Syska cat no. SSK-PAB-6060-B of lumens >3000.	No.	16		
17	Supply & Fixing of 15W LED Downlighter recessed mounted of Syska/Phillips/Wipro/CG make complete with all accessories	No.	25		
18	Supply & fixing of 18W LED T5 Batten fitting Syska / Phillips / Wipro / CG complete with all respect.	No.	10		
19	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		
20	Supply & fixing of 9W LED bulb with holder Syska / Phillips / Wipro / Crompton complete with all respect.	No.	4		
21	Supply & fixing of wall fan complete with all respect. (Make: Polar, Orient, CG, Havells, Usha,)	No.	14		
22	SITC of 1400MM ceiling fan Polar/Orient/CG/Havells/USha White.	No.	4		
23	SITC of 9" dia 230V,1400 rpm exhaust fan as in toilets, ups room, toilets etc.(Polar/Orient/CG/Havells/USha )	No.	4		

PART C- LAN CABLING WORK					
24	Supply of 2 mtr. Long E-CAT 6 PATCH CHORD (Make: D-LINK, AMP, HCL, Legrand)	No.	10		
25	<b>INTERNET SOCKET WITH DATA CABLE::</b> SITC of modular RJ-45 internet sockets with suitable mounting box (modular type) including all inter-connections as required with front plate <b>D link or equivalent</b> make approved by the bank connections etc as required all complete job as per the standard specification and direction of the bank for BM, SWO, A/C, FO. <b>Along with supply and wiring of CAT6 DATA cable wiring in recessed surface/ recessed PVC conduit pipe connection etc as required all complete job as per the standard specification and direction of the bank. D link or equivalent</b>	No.	18		
26.1	Supply & installation of 9U Rack with power supply arrangement, ventilation fan, mounting racks ect. Complete with all accessories.	No.	1		
26.2	Supplying and installation of switch 24 ports 10/100 BASE-TX ports, (D link) managed as approved by the Bank.	No.	1		
27	<b>ONLOAD CHANGE OVER SWITCH:</b> SITC of 1 no. 415V, 63A, 2P with on indication on load Change over switch with suitable enclosure. Complete with all respect. (socomec/hpl)	No	1		
28	Double pole MCB DB in sheet steel enclosure with Incoming: 1 no. 25A DP ELCB, Outgoing: 2 no. 10A SPN MCB complete with interconnection, timer(QT-31) for glow sign board of branch & street light.	No	1		
29	Supply & Installation of 20A, timer switch with 2 no.s of 20A DP MCB's alongwith suitable size enclosure box for switching of A.C.'s, etc. including all necessary hardware & accessories, etc. complete as required	SET	1		
30	Charges for making and submitting neat and clean computerised Electrical Drawing of the Branch indicating SLD of the Branch, indicating DB, switch boards, etc along with proper numbering and indicating power flow and laminating the same.	SET	2		
31	Charges for making and submitting neat and clean computerised lan WIRING Drawing of the Branch indicating Data Rack , lan wiring to different I/O boxes etc along with proper numbering and laminating the same..	SET	2		

32	Supply & Installation of single color (warm white 2800k light / any other approved color) flexible LED strip light including required rated driver / power supply in multiples of 1 Rmtr as approved along with all necessary hardware & accessories, etc. Complete as required (PHILIPS / WIPRO / CGL / GE / Bajaj/Syska)	Rmt	68		
33	Supply & Fixing of 5W/6W LED Downlighter recessed mounted of Syska/Phillips/Wipro/CG make complete with all accessories	No.	20		
			<b>TOTAL (Rs.)</b>		
<b>NOTE:</b>	The rate quoted shall be firm and shall include all costs, allowances, Charges, levies, Royalties, Cess, transportation etc. but excluding GST as applicable which will be reimbursed by the Bank as per Government norms prevailing from time to time. Contractor's are advised to visit the site before quoting.	<b>GRAND TOTAL</b>			
1	The work must be guaranteed for a period of 12 months for its satisfactory performance from the date of completion and all defects cropping up within this period must be rectified at contractor's cost immediately.				
2	In electrical room, ups room, there must be one emergency light point other than raw light point.				
3	Earthing test report, Meggar test report & test certificates for the cables will be provided to the Electrical Engineer				
4	Work completion certificate including required dismantling work if any will be provided by the branch manager.				
5	All cable and wire terminations must be proper with suitable lugging. There must not be any loose wiring/ cabling				
6	There should not be any jointing in the cables/wires. All wiring accessories should be explosion proof only.				
7	Additional inter-connections within the main panel and TPN SFU has been included in the rate of main panel.				
8	Distance between power and electronic earthings must be at least 3.5 Mtr.				
9	All cables except the ones mentioned separately in the estimation have been included in their relevant sections.				
10	Proper load distribution is to be done by the vendor. Load variation over 10% will be unacceptable.				
11	The quantities mentioned wherever are tentative , may decrease, or increase , or may not be used as per site conditions. Their can be certain existing items, which will be reused. So contractors are advised to visit the site before quoting.				
<b>RECOMMENDED MANUFACTURERS</b>					
1	<b>CABLES &amp; WIRES -</b> POLYCAB/ FINOLEX/ L&T/MESCAB/RR/KEI/UNIVERSAL				
2	<b>PROTECTIVE DEVICE</b>				
A	DB/MCCB/MCB/RCBO/ELCB-L&T/SIEMENS/GE/SCHNEIDER/LEGRAND/ABB				
B	<b>CHANGE-OVER-SWITCH -</b> L&T/HPL /SOCOME/ ABB				
3	<b>SWITCHES/SOCKETS/REGULATOR</b> NORTH-WEST/ LEGRAND/SCHNEIDER/MK/ROMA/CRABATREE/L&T				
4	<b>METAL CLAD SOCKET &amp; PLUG- L&amp;T/LEGRAND/ABB/C&amp;S</b>				
5	<b>MEASURING INSTRUMENTS-</b> AE/ IMP/ L&T/ GE/ TELEMECANIQUE/ PROK				
6	<b>LED LIGHTS -</b> PHILIPS/CG/ GE/SYSKA/HAVELLS/HPL				
7	<b>CILING/ WALL FAN -</b> CROMPTON/ POLAR/HAVELLS/USHA/ORIENT				
8	<b>EXHAUST FAN -</b> CROMPTON/ BAJAJ/ALSTOM/ALMONARD/POLAR				
9	<b>Conduit</b> MS- BEC/ NIC/ AKG/ BHARAT/ JINDAL PVC RIGID - BEC/ AKG/ PRECISION/Equivalent GI FLEXIBLE - BEC/ NIC/ AKG/Equivalent GALVANISED STEEL - BEC/ NIC/ AKG/Equivalent				
10	<b>PVC CASING CAPING -</b> PRECISION/ PRESTO-PLUS/ CLASSIC/ MODI <b>OTHERS- IS/IS/ AS APPROVED BY E- I- C</b>				