

### TENDER SCHEDULE

Sl. No.	Item Description	Unit	Quoted Rate (in Rupees)	Remarks
4	<b>ELECTRICAL ITEMS</b>			
1	Design, supply, installation, testing and commissioning of cubicle JB	Set		
	<b>Main Panel = Outdoor Floor mounted type)</b> <b>Incommer:-</b> 01 no. 125A., 25A FP MCCB ..1nos 125A on load FP Change Over switch(MCB Type) <b>Busbar:-</b> 04 nos.200A. Al. bus bar duly sleeved.with Locking arrangement. <b>Outgoing:-</b> i) 2-nos 32A, 10kA TPN MCB, 3-nos 63A, 10kA TPN MCB,2-nos 63A, 16kA FP MCCB, 1-nos 100A, 16kA FP MCCB & 5 nos 32A SPN,10KA MCB <b>Instrument:-</b> i) 03 nos. phase indicating lamp with toggle ii) 01 Set of (0-500V) Digital. Voltmeter ii) 01 Set of (0-125A) Digital Ameter (Duly factory wired)			
2	Design, supply, installation, testing and commissioning of cubicle JB	Set		
	OUTDOOR JB (Outdoor, Floor mounted)			
	Incommer:-i) 01 no. 40A., 2P Isolator			
	Bus bar:- 02 nos. 50A. Al. bus bar duly sleeved.			
	Outgoing:-			
	i) 06 nos. 10/16A SP MCB			
	Instrument:- 03 nos. phase indicating lamp with control fuse.(Duly factory wired)			
3	Supplying and fixing of Single Phase Kwh meter (5-30)A with LCD display with Tamper proof Box ,approved as per Local EB complete with connections, testing and commissioning etc. as required.	Set		
4	Supplying and fixing of 3- Phase Kwh meter (10-40)A with LCD display with Tamper proof Box ,approved as per Local EB complete with connections, testing and commissioning etc. as required.	Set		
5	Supplying and fixing of 3- Phase Kwh meter (20-40)A with LCD display with Tamper proof Box ,approved as per Local EB complete with connections, testing and commissioning etc. as required.	Set		
6	SSITC of 7mtr GI Pole with 45 w Light	Set		
7	Supply, Testing, and commissioning of 250mm Exhaust fan .(Make Usha-Crisp Air or Equiv.-CG/Havells/Bajaj)	Set		
8	Supply, Testing, and commissioning of 250mm Exhaust fan .(Make Usha-Crisp Air or Equiv.-CG/Havells/Bajaj)	Set		
9	Supplying 1200 mm energy efficient ceiling -(Make Usha-Striker or CG/Havells/Bajaj)	Set		
10	Supplying 1200 mm energy efficient ceiling -(Make Usha-Striker or CG/Havells/Bajaj)	Set		
11	Supply, Testing & commissioning of Surface or wall mounting 1 x 20W LED tube light fitting (Make WIPRO-Model-D532065/SS make Philips /CG/ Wipro/ HYBEC)	Set		
12	Supply, Testing & commissioning of Surface or wall mounting 1 x 10W LED tube light f(Make WIPRO-Model-LL20-111-XXX-65NE3 make Philips /CG/ Wipro/ HAVELLS)	Set		
13	7M long G.I.octagonal pole complete with RCC foundation, required G.I base plate , single-arm of ERW galvanised pipe 30mm - 1M length, providing GI pipes for cable entry junction box with prewired 6 Amp SP MCB, loop-in -loop-out , terminal block, wiring with copper wire upto the fitting etc. complete	Set		
14	Supply, fixing & termination of Outdoor type IP66 70W Street Light Luminaire with die cast aluminium housing & polycarbonate cover similar to JAQUAR Cat No. LSRT01S072XC or equivalent.	Set		
15	SITC of outdoor type IP65 100W Flood LIGHT with LED Lamp Similar to JAQUAR Cat No. LFLDSL100XC or equivalent.	Set		
16	Supply, Installation,Testing & commissioning of IP-65, 800MM Bollard Light with symmetrical light distribution including 1 no. of 7 watt LED luminaires & Base with Brick Masonry work(300x300x300)mm for the above fitting as per EIC of approved make including with all,, materials & labour.. (Make :Wipro,Cat No.-LB13-880-XXX-65-08 */Equiv.-	Set		

	HYBEC/Philips/Havells/Bajaj)			
17	Supply & fixing of 1 HP 1ph. Motor point complete with 1no. 16A plug & Socket including all other materials & lanour.	Set		
18	Supply, laying, testing and commissioning of following sizes of 1100 volt grade PVC insulated and PVC sheathed aluminium conductor cable <b>in existing HDPE pipe</b> directly buried in ground including the cost of <b>trench excavation, sand bedding, 3 side brick protection, back filling, route markers</b> and including the cost of dressing to ensure minimum 1D gap between adjacent cables, identification tags, etc. complete as per specifications, as required and as below.			
a)	2c x 4 sq.mm ,1.1kv grade AYFY/Al. Cable.From <b>DB to Light point to light point &amp; 1hp Motor Point,Halogen,Street Light</b>	mtr		
b)	3.5c x 25 sq.mm 1.1kv grade AYFY AL. cable	mtr		
c)	3.5c x 150 sq.mm 1.1kv grade AYFY AL. cable	mtr		
d)	3.5c x 120 sq.mm 1.1kv grade AYFY AL. cable	mtr		
e)	3.5c x 95 sq.mm 1.1kv grade AYFY AL. cable	mtr		
f)	3.5c x 70 sq.mm 1.1kv grade AYFY AL. cable	mtr		
19	Supplying & making end termination with brass compression gland and aluminium lugs for following size of PVC insulated PVC sheathed / XLPE aluminium conductor cable of 1.1 kv grade as required			
a)	3.5c x 25 sq.mm 1.1kv grade AYFY AL. cable	mtr		
b)	3.5c x 150 sq.mm 1.1kv grade AYFY AL. cable	mtr		
c)	3.5c x 120 sq.mm 1.1kv grade AYFY AL. cable	mtr		
d)	3.5c x 95 sq.mm 1.1kv grade AYFY AL. cable	mtr		
e)	3.5c x 70 sq.mm 1.1kv grade AYFY AL. cable	mtr		
20	Providing, laying and fixing following dia HDPE pipe in ground complete with jointing in existing Trench as per EIC.			
a)	50 mm dia	mtr		
b)	80 mm dia	mtr		
21	Providing, laying and fixing following dia GI pipe in ground complete with jointing in existing Trench as per EIC.			
a)	50 mm dia	mtr		
b)	80 mm dia	mtr		
22	Supply, Installation, testing & commissioning of the following <b>outdoor floor mounted free standing</b> type L.T Distribution panel board of 415V , 50Hz. Power supply made out of 2mm thick for outdoor & 1.6mm thick for indoor CRCA steel duly derusted & painted with two coats of light grey & enamel paint of approved shade over a coat of primer, dust, damp & vermin proof, cubcle fixed on M.S angle channel base, having hinged door and compartmental arrangement for each equipment and suitable size of Aluminum busbar duly sleeved by colour coded sleeves with required ratings / sqinch appropriate current density in the panel running vertically, having provision for cable entry at bottom, providing Earthing point to terminate 25mm x 6mm G.I flat, Nomenclature plate, Enamelled danger board, earthing studs as per specification mentioned below duly factory wired confirming to the relevant ISS.			
	1 no.250A, 25kA, 415V TP MCCB as I/C.	Nos.		
	300A TPN Al Bus-bar	Nos.		
	1 nos.160A ,16KATP MCCB as O/G.	Nos.		
	2 nos.125A ,16KATP MCCB as O/G.	Nos.		

	1 nos.100A ,16KATP MCCB as O/G.	Nos.		
	3 nos.63A ,10KAFP MCB as O/G.	Nos.		
	3 nos.32A ,10KA DP MCB as O/G.	Nos.		
23	The panel board should contain Toggle switch, 3 ph.(R,Y,B) Indicator,Voltmeter (0-500v) with selector switch & Ammeter (0-250A) with Selector Switch, 3 nos. of CT'S of rating 250/5 A & should be fixed at a suitable place of floor level on a brick structure base along with other necessary materials and labour.	No.		
24	Supply of fixing of Out door type <b>LT Feeder Box -1</b> in wall/Floor mounted metal board of welded construction,fabricated with minimum 35mm x 35mm x 6mm angle iron frame work,with 25mm x 6mm flat iron as intermediate members including powder coated painting,wheather proof,water proof etc, & complete with all accessories.			
	1 no.40A, 10kA, 415V FP MCB as I/C.	Nos.		
	63A TPN Al Bus-bar	Nos.		
	12 nos.16A DP MCB as O/G.	Nos.		
25	The Feeder Box should contain Toggle switch, 3 ph.(R,Y,B) Indicator,& should be fixed at a suitable place of floor level on a brick structure base / in 100 X 50 MM ISMC frame along with other necessary materials and labour. <b>(FOR EXTERNAL LIGHTING)</b>	No.		
26	Constructing of concrete base for panel boards including of reuired excavation and brickwork with plaster etc.all complete as per the direction of Engineer-in-Charge.	No.		
27	SITC of Astronomical time switch of following configuration to be mounted in Feeder Pillar / Lighting DBs for automatic switching on/off lights at sun set & sun rise or twilight <b>(Auto on / Auto off / Auto Mode)</b> with manual override facility with 12/24 hour display format with suitable battery & indication for relay status i/c programming at site complete as required. <b>3 output(1 output per phase)</b> and suitable for 3-phase supply	No.		
28	Providing and making earthpits including the cost of 600 mm x 600 mm x 3 mm GI plate electrode 50 mm dia GI pipe, CI funnel with wiremesh charcoal, salt, all earth work, masonry enclosure with CI frame & 300 mm x 300 mm cover plate having locking arrangement complete as per IS 3043:1987 for LV system.	No.		
29	Supplying and laying of the following earthing clamped to wall with suitable clamps saddles and fixing bolts/ in ground including the cost of digging and back filling with sand and brick protection as required and complete as required to comply with IS 3043:1987			
	25 mm x 5 mm GI strip	Mtr.		
30	SITC of 2'-6"height designed stone carved Bollard light suitable for 23W CFL ,240V Single phase AC complete with Lamp, Base & all other levies etc. as required. <b>( Local Made)</b>	No.		
31	SITC of 2'-6". height Decorative Terracotta Bollard lantern designed for 1 x 23w CFL suitable for 240V single phase AC, complete with lamps Base & all other levies etc. as required. <b>( Local Made)</b>	Nos.		
32	SITC of 1 x 18 W CFL 1'-6"height Decorative Terracotta Bollard including 1 nos of 18w CFL lamp,Base & complete with all other levies etc. as required. <b>( Local Made)</b>	No.		
33	SITC of Local make water proof & weather proof cost worth pole made of GI pipe <b>6.0M</b> height. Bottom dia 150mm,top of the pole dia 75mm,single arm. (above the ground) with 300 X 300 X 15mm base plate. Pole shall be made from GI tubular pipe, duly primered and painted black or any other desired colour. The pole shall be provided with flush door at the bottom with proper strengthening to the cutout of the door opening. A water proof junction/looping box shall be built into the pole, which shall be provided with a Bakelite plate, suitable for heavy duty 4pole connector and channel for mounting the 6A SP MCB complete with all other materials & labour etc as required.	No.		

34	220 Volts 9 watt 8 inch Globe Type( Doom Type) with steel cage luminaries along with 40mm dia. 12 inch Bug stainless steel pipe holder for fitting & fixing. Twist PVC quoted dual core 6mm aluminum outer type round cable, fixing supply and charging of garden fencing luminaries.	No.		
35	<p><b>Sub-Head I (modular Wiring Items)</b>  Recessed wiring to light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm <b>FRLSH/LSZH</b> PVC insulated copper conductor of ISI marked <b>Make- Finolex/Anchor/Polycab/HAVELLS/RR KABLE/KEI or equivalent reputed make A category ISI marked as approved</b> with 20 mm dia PVC flexible non metallic conduit FRLS type ISI marked <b>Make-AKG/Anchor/Havells or equivalent reputed make A category ISI marked as approved</b> 6A modular type ( flame retradant type) switch ISI marked <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision) or equivalent reputed make &amp; model A category ISI marked as approved</b>, and ceiling rose ISI marked <b>Make- Anchor/Havells</b> of modular type G.I box with metallic cover plate (both side) ( falme retardant type) <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision)or equivalent reputed make &amp; model A category ISI marked as approved</b> of suitable size, modular box with 1.5 sq. Mm FRLSH PVC insulated single core multi standard copper conductor as earth wire including all accessories and connection as per direction of Engineer -in - Charge. <b>CATAGORY AS FOLLOWS , complete suitable for OFFICE. All the switches &amp; sockets should be warranted for a replacement period of 5 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b></p>			
a)	<b>GROUP-A</b>	Nos		
a-1)	<b>GROUP-B</b>	Nos		
a-2)	<b>GROUP-C</b>	Nos		
b)	<p><b>Group control of point</b> in Recessed wiring to light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm <b>FRLSH/LSZH</b> PVC insulated copper conductor of ISI marked <b>Make-Finolex/Anchor/Polycab/HAVELLS/RR KABLE/KEI or equivalent reputed make A category ISI marked as approved</b> with 20 mm dia PVC flexible non metallic conduit FRLS type ISI marked <b>Make-AKG/Anchor/Havells or equivalent reputed make A category ISI marked as approved</b> 6A modular type ( flame retradant type) switch ISI marked <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision) or equivalent reputed make &amp; model A category ISI marked as approved</b>, and ceiling rose ISI marked <b>Make- Anchor/Havells</b> of modular type G.I box with metallic cover plate (both side) ( falme retardant type) <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision)or equivalent reputed make &amp; model A category ISI marked as approved</b> of suitable size, modular box with 1.5 sq. Mm FRLSH PVC insulated single core multi standard copper conductor as earth wire including all accessories and connection as per direction of Engineer -in - Charge. <b>CATAGORY AS FOLLOWS , complete suitable for OFFICE. All the switches &amp; sockets should be warranted for a replacement period of 5 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b></p>	Nos		

c)	Supplying ,fixing of 6A Plug on the same board in existing switch board with complete fitting by 01 no of 6A switch & socket ( <b>modular type</b> ) ( <b>flame retardant type</b> ) & other required accessories of ISI marked as approved as per direction of Engg. -in -Charge. <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision) or equivalent reputed make &amp; model A category ISI marked as approved, complete suitable for for QUTS.(Maximum 02 nos point in one circuit).All the switches &amp; sockets should be warranted for a replacement period of 5 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>	Nos		
d)	Supplying, fixing of 6A Plug on the separate board with complete fitting by 01 no of 6A switch & socket( <b>modular type</b> )( ( <b>falme retardant type</b> )) with suitable size modular box & cover( falme retardant type) including supplying of all required accessories of ISI marked as approved as per direction of engg-in-charge.. <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision) or equivalent make &amp; model ISI marked as approved , complete suitable for OFFICE.(Maximum 02 nos point in one circuit).All the switches &amp; sockets should be warranted for a period of 10 years against manufacturing defects against which necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>	Nos		
e)	Supplying, fixing of 1x16A Plug on the separate board with complete fitting by 01 no of 16A switch & socket( <b>modular type ( flame retardant type)</b> ) with suitable size modular box & cover( falme retardant type) including supplying of all required accessories of ISI marked as approved as per direction of engg-in-charge.. <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision)or equivalent reputed make A catagory ISI marked as approved, (For equipment power)All the switches &amp; sockets should be warranted for a replacement period of 10 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>	Nos		
f)	Supplying, fixing of 21x6A+1X1 6A Plug on the separate (out door)board with complete fitting by 01 no of 16A+1 no 6A switch & socket( <b>modular type</b> ) ( ( flame retradant type) with suitable size modular box & metallic cover plate (both side)( falme retardant type)including supplying of all required accessories of ISI marked as approved as per direction of engg-in-charge.. <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision)or equivalent reputed make &amp; model A category ISI marked as approved, (For equipment power)complete suitable for for OFFICE.(Maximum 02 nos point in one circuit).All the switches &amp; sockets should be warranted for a replacement period of 5 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>	Nos		
36	Receass wiring for circuit/sub main wiring with the following mentioned size PVC <b>FRLSH/LSZH</b> insulated, copper conductor, single core cable ( <b>Finolex/Anchor/Polycab/ HAVELLS/RR KEBLE</b> ) or equivalent reputed make A category ISI marked as approved, in recessed PVC conduit Heavy duty FRLS of mentioned size ( <b>AKG/Anchor/Kinjal or equivalent</b> ISI marked as approved) as required as per direction of Engg.-in-Charge. Necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period for acceptance of materials			
a)	<b>2 nos single core 1.5 sq. mm copper wire</b> for phase and neutral and 01 no of single core 1.5 sq. mm copper wire for earth continuity conductor. In 20 mm dia non metallic heavy duty flexible conduit (LDB to LSB/LIGHT CKT)( <b>2X1.5+1X1.5</b> )	Mtr		

b)	<b>2 nos single core 2.5 sq. mm copper wire</b> for phase and neutral and 01 no of single core 1.5 sq. mm copper wire for earth continuity conductor in 20 mm dia non metallic heavy duty flexible conduit.(BDB to LSB/LIGHT CKT/5A PLUG/INVERTER POINT TO EACH QTR) <b>(2X2.5+1X1.5)</b>	Mtr		
c)	<b>4 nos single core 2.5 sq. mm copper wire</b> for phase and neutral and 02 nos of single core 2.5 sq. mm copper wire for earth continuity conductor .in 25 mm dia non metallic heavy duty flexible conduit(LDB to LSB/5A SOCKET) <b>(4X2.5+2X2.5)</b>	Mtr		
d)	<b>2 nos single core 4 sq. mm copper wire</b> for phase and neutral and 01 no of single core 1.5 sq. mm copper wire for earth continuity conductor in 20 mm dia non metallic heavy duty flexible conduit .(PDB to PSB/ GAYSER POINT/AC POINT/ROOM LIGHT CONTROL TO CORRIDOOR POINT/DG PANEL ESSENTIAL LOAD) <b>(2X4+1X1.5)</b>	Mtr		
e)	<b>2 nos single core 6 sq. mm copper wire</b> for phase and neutral and 01 no of single core 2.5 sq. mm copper wire for earth continuity conductor in 25 mm dia non metallic heavy duty flexible conduit .(LFDB TO LBDB) <b>(2X6+1X2.5)</b>	Mtr		
g)	<b>4 nos single core 6 sq. mm copper wire</b> for phase and neutral and 02 nos of single core 2.5 sq. mm copper wire for earth continuity conductor in 32 mm dia non metallic heavy duty flexible conduit.(LFDB TO LBDB/power unit/point) <b>(4X6+2X2.5)</b>	Mtr		
37	Supplying and fixing 20 amps, 240 volts, SPN, industrial type socket outlet, with 2 pole and earth metal enclosed plug top along with 32 amps. C-series, SP MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet, and complete with connections, testing and commissioning etc. as required as per direction of Engg.-in-Charge.. <b>Make-Legrand/Schneider/Siemens/panasonic or equivalent reputed make &amp; model A category ISI marked as approved,All the Components should be warranted for a replacement period of 5 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>	Nos		
38	Supplying and fixing following size/ modules, GI box along with modular base & metallic cover plate (both side) plate for modular switches in recess etc as required as per direction of Engg.-in-Charge. <b>MAKE-Legrand/Siemens/Anchor/Panasonic/ Schneider or equivalent reputed make &amp; model A category ISI marked as approved .All the Components should be warranted for a replacement period of 5 years against defects with necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>			
a)	4 moudle(125mmx75mm)	Nos		
b)	1 moudle(75mmx75mm)	Nos		
c)	12 moudle(200mmx150mm)	Nos		
39	Supplying and fixing of following sizes of medium class PVC FRLS conduit ISI marked along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required as per direction of Engg.-in-Charge . <b>MAKE KINJAL/ AKG/Anchor or equivalent reputed make A category ISI marked as approved</b>			
a)	20 MM	mtrs		
b)	25 MM	mtrs		

40	Supply and fixing modular type indicator on the existing switch box/cover . Equivalent higher model of <b>Schneider/Hager/Siemens/Anchor/Panasonic</b> make or equivalent reputed make & model A category ISI marked as approved as required as per direction of Engg.-in-Charge. All the Components should be warranted for a replacement period of 5 years against defects with necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period for acceptance of materials.	Nos		
41	Supply and fixing CALL bell (Ding dong type) /Buzzer on the existing switch box/cover. <b>Equievalant higher model of Schneider/Hager/Siemens/Anchor/Panasonic make or equivalent reputed make &amp; model A category ISI marked as approved</b> .as required as per direction of Engg.-in-Charge.All the Components should be warranted for a replacement period of 5 years against defects with necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period for acceptance of materials.	Nos		
42	S/F of <b>Bakelite angle holder/batten holder</b> (make- <b>Anchor/Havells/Panasonic</b> or equivalent reputed make A category ISI marked as approved )of ISI marked conforming to IS-1258/1987 in place of ceiling rose as per direction of Engg.-in-Charge. All the Components should be warranted for a replacement period of 5 years against defects with necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period for acceptance of materials.	each		
43	Supplying, fixing of Blanking plate( <b>modular type)( flame retardant type)</b> in existing switch box(anti bacterial & falme retardant type) including supplying of all required accessories of ISI marked as approved as per direction of engg.-in-charge.. <b>Make-Schneider(Zencelo)/legrand( Arteor) /Panasonic (vision), complete suitable for IPH standard hospital. It should be warranted for a period of 10 years against manufacturing defects against which necessary test report &amp; Warranty certificate to be submitted to the department for genuinely of product &amp; to avail free after sales service within warranty period for acceptance of materials.</b>	Nos		
44	Supplying, installation, of exhaust fan of heavy duty 300 mm sweep ( <b>Make-Equivalent higher model with 5 star rated of Havells/almonard/Anchor/Panasonic/Usha/Halonix or equivalent reputed make &amp; model A category ISI marked as approved</b> ) of exhaust fan in the existing wall, including fixing & connection as required as per direction of Engg.-in-Charge. Replacement Warranty will be 5 years.	Nos		
45	Supplying, installation, testing and commissioning of 1200 mm sweep white/milky colour ceiling fan <b>Make-Equivalent higher model with 5 star rated of Havells/almonard/Anchor/Panasonic/Usha /Halonix or equivalent reputed make &amp; model A category ISI marked as approved</b> ) including wiring the down rod of standard length (upto 30 cm) with 1.5 sq mm PVC insulated, copper conductor, single core cable etc. as required as per direction of Engg.-in-Charge, Replacement Warranty will be 5 years.. .(With fan Regulator)	Nos		
46	Supplying and fixing of Energy efficient surface mounted square shape 18 W LED luminaire of dimension of 225x 225 x 35 mm consists of white powder coated , die-cast Aluminum housing with high quality frosted diffuser for glare-free uniform lighting distribution with wattage not more than 20 watt and lumen output of 1500 lumens, , CRI not less than 80,CCT of 6000 degree K,THD less than 10%, with electronic driver, internal surge protection of 2.5 KV , L70 B50: 30000 hrs (2 yrs warranty) and all other accessories suitable for operation on 220 V to 240 V supply as required as per direction of Engg.-in-Charge. ( Make : (Make:Havells/ wipro LD80-171-60-XX-SM or similar model of LT/Trilux /Philips/Panasonic/HALONIX or equivalent reputed make & model A category ISI marked as approved).The luminaire should be Replacement Warranty will be 5 years	Nos		

47	SITC of energy efficient LED tube light fittings with decorative aluminum batten and LED tube light having power rating not more than 20 watt and lumen output not less than 2200 lumen complete with electronic driver and all other accessories with diffuser having 5 years warranty i/c connection etc as required as per direction of Engg.-in-Charge. ( Make:Havells/ wipro or similar model of LT/Trilux /Philips/Panasonic/HALONIX or equivalent <b>reputed make &amp; model A category ISI marked as approved.</b> ). The luminaire should be Replacement Warranty will be 5 years .	Nos		
48	SITC of Sleek LED 10 watt mirror light fitting with extruded polycarbonate housing, High optically efficient diffuser, <b>above wash basin</b> complete with all accessories etc. directly on wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required as per direction of Engg.-in-Charge. ( Make :Havells/ <b>WIPRO</b> or similar model of <b>PHILIPS/Panasonic/HALONIX or equivalent reputed make &amp; model A category ISI marked as approved.</b> )The luminaire should be Replacement Warranty will be 5 years	Nos		
49	SITC of IP 20 Non-integral flexible LED strip light(OUTDOOR),High optically efficient diffuser,, 3000K with 12 w/mtr @ 5Mtr pool with Driver extra as required as per direction of Engg.-in-Charge ( Make : (Make:Havells/ wipro or similar model of LT/Trilux /Philips/Panasonic or equivalent or similar model of <b>/PHILIPS/Wipro/HALONIX or equivalent reputed make &amp; model A category ISI marked as approved.</b> )The luminaire should be Replacement Warranty will be 5 years	Nos		
50	Supplying and fixing of small focus light for small monuments as 6W , 4000 K required as per direction of Engg.-in-Charge (Make:Havells/ wipro-or similar model of LT/Trilux /Philips/Panasonic/HALONIX or equivalent <b>reputed make &amp; model A category ISI marked as approved.</b> )The luminaire should be Replacement Warranty will be 5 years	Nos		
51	Supplying and fixing of small focus light for small monuments as 3W , required as per direction of Engg.-in-Charge (Make:Havells/ wipro----- or similar model of LT/Trilux /Philips/Panasonic/HALONIX or equivalent <b>reputed make &amp; model A category ISI marked as approved.</b> )The luminaire should be Replacement Warranty will be 5 years	Nos		
52	Supplying and fixing extra conduit down rod of 20 cm length G.I. pipe 15 mm dia, heavy gauge including painting etc. as required as required as per direction of Engg.-in-Charge . (Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)of ISI mark as approved.	Nos		
	<b>BDBS,DB,AC DB,FLOOR PANELS,MCBS</b>			
53	Supplying and fixing of following mentioned way, three pole/single pole and neutral, sheet steel,double door MCB distribution board, 415 volts/240 volts shall be as per IEC 61439-3,integrated door earthing system offering additional safety to the user,High quality polyurethane Gasket,the box and cover shall be fabricated to withstand IK09,the DB should be properly pre-treated with 7 tank process and duly powder coated, phosphatized with powder coated finish, on surface/recess, complete with terminal blocks,with suitable size FR PVC insulated copper conductor up to terminal blocks, tinned copper busbar, neutral busbar, earth bar, din bar. <b>Make-LEGRAND-Ekinox3 DB/ Siemens-Betaguard/ Schneider- Acti 9/Panasonic(Equivalent model) /ABB(Equivalent model)</b> or equivalent reputed make & model A category ISI marked as approved. as per direction of Engg.-in-Charge. The Distribution boards should be Replacement Warranty will be 5 years			
a)	Supply and fixing of 12 way DD single pole and neutral sheet steel MCB distribution board 250V on surface/recess complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required (but with out MCB/ RCCB/ Isolator) <b>(ALL LIGHT WITH CORRIDOOR/COMMON AREA,EM LIGHT,UPS LOAD, EM LOAD LIGHT LOAD,POWER LOAD )</b>	Nos		

54	Supplying and fixing 6 amps to 32 amps rating, 240 volts, C series, single poles MCB of <b>Make-LEGRAND-Ekinox3 DB/ Siemens-Betaguard/ Schneider- Acti 9/L&amp;T (Equivalent model)/Panasonic(Equivalent model) /ABB(Equivalent model)</b> or equivalent reputed make & model A category ISI marked as approved. the existing MCB DB complete with connections as per direction of Engg.-in-Charge. The MCB should be Replacement Warranty will be 5 years.MCB should have the fault indication system in different colour for ON, OFF & TRIP condition or Mid trip position for Trip conditions for easier identification of fault. Warranty on MCB is 5 years.	Nos		
55	Supplying and fixing 25Amps DP 240 volts, RCCB,300mA <b>Make-Equivalent higher model of Legrand/Snheider/Siemens / L&amp;T/Panasonic /ABB or equivalent reputed make &amp; model A category ISI marked as approved in the existing MCB DB</b> in the existing MCB DB complete with connections as per direction of Engg.-in-Charge. The RCCB should be Replacement Warranty will be 5 years	Nos		
56	Supplying and fixing 40Amps DP 240 volts, RCCB,300mA <b>Make-Equivalent higher model of Legrand/Snheider/Siemens / L&amp;T/Panasonic /ABB or equivalent reputed make &amp; model A category ISI marked as approved in the existing MCB DB</b> in the existing MCB DB complete with connections as per direction of Engg.-in-Charge. The RCCB should be Replacement Warranty will be 5 years	Nos		
	<b>(Earthing) INSTALLATION</b>			
57	S/IT/C of materials and installation of pipe earth electrode made out of 50mm dia class B G.I. pipe of 3.0 metre long with arrangements for fitting/ termination of G.I. flat / wire with G. I. nut bolts & washers including cost of burnt wood charcoal, salt, foreign soil, water pouring arrangements, brick masonry enclosure on top with removable RCC cover complete with labour for excavation of pit in all kinds of soil & rock as required and as per direction of Engineer-in-charge.The entire earthing system should be Replacement Warranty will be 5 years	Nos		
58	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing as required.as per direction of Engg.-in-Charge.	Mtr		
59	Supplying and making brick masonry pedestal with extra super structure including cement plastering etc as required as per direction of Engg.-in-Charge.	Mtr		
	<b>CABLING AND END TERMINATION MAIN AREA</b>			
60	Supplying of one number PVC insulated armoured and PVC sheathed XLPE property <b>AL. conductor</b> power cable of 1.1 KV grade <b>POLYCAB/HAVELLS/Finolex or equivalent reputed make ISI marked as approved</b> of following size cables as per direction of Engg.-in-Charge. Necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period for acceptance of materials			
a)	3.5core x 70 sq mm ( <b>MAIN OFP PANEL,2 runs,DG 1 run</b> )	Mtr		
b)	4 core x 4 sq mm (for small power/LIGHT TO POLE)	Mtr		
	<b>LAYING OF CABLE</b>			
61	Laying of PVC Insulated PVC Seated /XLPE power cable of 1.1 kv grade size not exceeding 25 SQ. MM direct in ground in the trench in one horizontal formation including excavation ,sand cousing protection covering and refilling the trench etc as required as per direction of Engg.-in -charge.	Mtr		
62	Laying of PVC Insulated PVC Seated /XLPE power cable of 1.1 kv grade size exceeding 25 SQ. MM but not exceeding 120 SQ. MM direct in ground in the trench in one horizontal formation including excavation ,sand cousing protection covering and refilling the trench etc as required as per direction of Engg.-in -ch.	Mtr		
63	Laying of PVC Insulated PVC Seated /XLPE power cable of 1.1 kv grade size not exceeding 25 SQ. MM direct in ground in the EXISTING PIPE etc as required as per direction of Engg.-in -charge.	Mtr		

64	Supplying and making end termination with brass compression gland and aluminum lugs for following mentioned size cable.as per direction of Engg.-in-Charge.			
a)	3.5 core x70 sq mm	Nos		
65	Providing, fixing and laying of fallowing dia G.I. pipe (medium class) in ground complete with G.I fitting incl. trenching(75 mm depth)and refilling as per direction of Engg.-in-Charge.			
a)	80 mm dia	mtrs		
66	Providing, fixing and laying of fallowing dia HDPE pipe (medium class) in ground complete with fitting incl. trenching(75 mm depth)and refilling as per direction of Engg.-in-Charge.			
a)	100 mm dia	mtrs		
	<b>MAIN PANEL(out door double door type)</b>			
67	S/I/T & Commissioning of LT outdoor floor mounted cubical type double door electrical main panel (for both light and power circuit) made out by 2mm CRCA steel sheet duly derusted & pented by simens gray powder cote paint is designed as G.A drawing as per direction of Engg.-in-Charge. Warrantee period of replacement of panel & accessories must be 5 years & complete test certificate must be submitted along with panel board including component list.	Set		
	<b>In commer-</b> 01 number of 160(100-160) Amps 4P MCCB with Rom & sprader link,36 kA & 01 no of 125A 4P changeover switch. . <b>(make-ABB/Siemens/SCHNEIDER/L&amp;T/Legrand, ISI marked)(Icu=50%Ics)with shunt trip.with auxiliary for BMS</b>			
	<b>Busbar-</b> 04 numbers of 150Amps al. busbar duly sleeved by color coated PVC sleeve & supported by suitable size DMC insulator.			
	<b>Out going-</b> (i) 63A 4P MCB 8 NOS FOR POWER BDB & timer panel (Legrand/Schneider make)			
	<b>Out going-</b> (ii) 08 nos 32A 4P MCB LIGHT WATER SUPPLY & TIMER PANEL FOR AREA LIGHTING(Legrand/Schneider make)			
	<b>Instrument-</b> (i) 03 numbers phase indicating lamp with toggle switch & HRC fuse.			
	(ii) 01 set of digital type multifunction meter with CT for voltage,current,frequency,PF,THD indication			
	(iii) 04 nos of 65kA SP VSD WITH 32A SP MCB			
68	HOT DIPP GALVANIZED(GC) AS PER EN-ISO-1461 , CARBON STEEL WIRE MESH CABLE TRAYS with internal dimensions of size 54mm(H) x 200mm(W), of <b>Legrand</b> - Cablofil make or equivalent reputed make & model A category, ISI marked as approved .The Load bearing capacity of the Cable Trays should be minimum of 104.8Kg/meter at the span of 1.5Meter as per UL specifications.(With all accessories,bend,cover,supporter)WITH REQUIRED SIZED JUNCTION BOX ,COVER CONNECTOR as required as per direction of Engg.-in-Charge. Warrantee period of tray must be 5 years & complete test certificate must be submitted .	mtrs		

69	Supply ,Installation testing commissioning of 60W, High efficient LED with aluminum housing in Pure Polyester UV resistant powder coated black finish and Top maintainable product with top opening die cast cover with acrylic clear glass reflector.CRI>70, IP66, Ambient temp-0 to 45DegC, Driver efficiency>85%, CCT-4000/5700K,THD<10%,Powerfactor>0.95, Surge protection-4 kV, Multistage Isolated Constant Current-Constant Voltage operated driver with range 150-300V AC and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Luminaire lumen ≥ 6500 lumens (110 lm/W). Similar to <b>Havells/Wipro</b> Make or equivalent Philips/ LT/Trilux make. & model A category, ISI marked as approved, with proper model make having warranted for a period of 5 years . The luminaire to be installed in 6 mtr long GI hot dip galvanized smart pole with anti corroson,,uv rays stabilized,metal post with covered by resin of Fumatech/Valmount/Transrail/RR/UTKASH /Utkal Galvanizer make equivalent make with proper model complete with SA bracket internal JB with 4 way connector and MCB as per the pole drawing and direction of EIC against which inspection mat take place. It should be installed after making proper size RCC foundation by considering RCC foundation by using M20 grade RCC & Fe 415 grade reinforcement and fixing the 4 nos. En 8 grade J type fdn bolts in the foundation. The luminaire needs to be wired with 3 c 1 sq mm wire from JB as per the direction of Engg-in - charge.	Sets		
70	Supplying, Erection, Fixing, connection & testing of 45 LED GATE Light of <b>Havells/Wipro make</b> or equivalent of Philips/LT/PANASONIC or equivalent reputed make A category ISI marked as approved maintenance free having 2 years warranty G.I.P pipe with bracket including MCB box & including with foundation as per the Drawing for inspection as required & as per direction of Engg.-in-Charge.	Sets		
71	Supplying, Erection, Fixing, connection & testing of 8W,(BUSH LIGHT),OUTDOOR High efficient LED with Aluminium housing with clear toughened glass diffuser.CRI>70, IP65, CCT - 2700K, Ambient temp-0 to 45 DegC, Driver efficiency>85%,THD<25%, Power factor>0.95, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage driver and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Luminaire lumen ≥ 600 lumens (75 lm/W). Similar to Havells/Wipro Make or equivalent Philips/ LT/Trilux make. as per the Drawing for inspection as required & as per direction of Engg.-in-Charge.	Sets		
72	Supplying ,installation & fixing of 11W, High efficient LED with extruded Aluminium housing with PC diffuser.CRI>70, IP65, CCT - 6500K, Ambient temp-0 to 45DegC, Driver efficiency>80%,THD<25%, Powerfactor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage driver and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Luminaire lumen ≥ 565 lumens (51 lm/W). Similar to Havells/Wipro or equivalent Philips/ LT/Trilux make. including with foundation as per the Drawing for inspection as required & as per direction of Engg.-in-Charge.	Sets		
73	Supplying ,installation & fixing of 8W, High efficient LED outdoor with extruded Aluminium housing with PC diffuser.CRI>70, IP65, CCT - 6500K, Ambient temp-0 to 45DegC, Driver efficiency>80%,THD<25%, Powerfactor>0.9, Surge protection-2 kV, Multistage Isolated Constant Current-Constant Voltage driver and Safety Extra Low Voltage Safe level<60V DC as per IEC standard. Luminaire lumen ≥ 565 lumens (51 lm/W). Similar to Havells/WiproMake or equivalent Philips/ LT/Trilux make. including installation under water as per the Drawing for inspection as required & as per direction of Engg.-in-Charge.	Sets		
74	SITC of IP 20 Non-integral flexible LED strip light(OUTDOOR),High optically efficient diffuser,, 3000K with 10 w/mtr @ 5Mtr pool with Driver extra as required as per direction of Engg.-in-Charge ( Make : (Make: Havells/Wipro--or similar model of LT/Trilux /Philips/Panasonic or equivalent or similar model of / <b>PHILIPS/Wipro/HALONIX or equivalent reputed make &amp; model A category ISI marked as approved.</b> )The luminaire should be Replacement Warranty will be 5 years	Nos		

75	Supply of materials and installation of pipe earth electrode made out of 50mm dia class B G.I. pipe of 3.0 metre long with arrangements for fitting/ termination of G.I. flat / wire with G. I. nut bolts & washers including cost of burnt wood charcoal, salt, foreign soil, water pouring arrangements, brick masonry enclosure on top with removable RCC cover complete with labour for excavation of pit in all kinds of soil & rock as required and as per direction of Engineer-in-charge. The entire earthing system should be Replacement Warranty will be 5 years	Nos		
76	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing as required as per direction of Engg.-in-Charge.	Mtr		
77	Providing and fixing 25mm x 5 mm copper strip on surface or in recess for connections etc. as required as per direction of Engg.-in-Charge.	Mtr		
<b>CABLING</b>				
78	Supplying and laying of one number PVC insulated armoured and PVC sheathed XLPE <b>AL. conductor</b> power cable of 1.1 KV grade <b>POLYCAB/FINOLEX/HAVELLS or equivalent reputed ISI MARKED MAKE</b> of following size cables as per direction of Engg.-in-Charge. Necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period for acceptance of materials			
a)	4core x 10 sq mm (OFP TO IND. TIMER PANEL)	Mtr		
79	Laying of PVC Insulated PVC Seated /XLPE power cable of 1.1 kv grade size not exceeding 25 SQ. MM direct in ground in the trench in one horizontal formation including excavation ,sand cousing protection covering and refilling the trench etc as required as per direction of Engg.-in -charge.	Mtr		
80	Laying of PVC Insulated PVC Seated /XLPE power cable of 1.1 kv grade size not exceeding 120 SQ. MM From 25 SQ. MM in surface with shaddle and screw etc as required as per direction of Engg.-in -charge.	Mtr		
81	S/I/T & Commissioning of LT OUT DOOR FLOOR mounted cubical type MCB ENCLOSURE made out by 2mm CRCA steel sheet duly derusted & pented by simens gray powder cote paint is designed as G.A drawing. (FOR USE) with 20A TPN MCB 01 NO Legrand/Schneider/L&T/ABB or equivalent make & model as per direction of Engg.-in-Charge. Necessary test report & Warranty certificate to be submitted to the department for genuinely of product & to avail free after sales service within warranty period 2 years of acceptance of materials	Set		
82	Supplying,laying of 3cx2.5 sq.mm copper flexible cable with insulated cover of reputed make,ISI marked with all other concerned materials as per direction of Engg.-in-Charge. Necessary test report & Warrnaty certificate to be submitted to the department for genuinity of product & to avail free after sales service within warranty period for acceptance of materials	mtrs		
83	Providing,fixing and laying of fallowing dia HDPE pipe (medium class) in ground complete with fitting incl. trenching(75 mm depth)and refilling as per direction of Engg.-in-Charge. Necessary test report & Warranty certificate to be submitted to the department for genuinity of product & to avail free after sales service within warranty period for acceptance of materials			
a)	50 mm dia	mtrs		
84	S/I/T& Commissioning of LT OUT DOOR FLOOR mounted cubical type timer panel with 32A 4P MCB,40A TP CONTACTOR ,TIMER with 15 nos 10A SP MCB C as per direction of Engg.-in-Charge. (Equivalent model each item of Legrand/Schneider/L&T/ABB or equivalent make & model)Necessary test report & Warranty certificate to be submitted to the department for genuinity of product & to avail free after sales service within warranty period for 2 years after acceptance of materials.	Set		

Sd/-

**Executive Officer  
Malkangiri Municipality**