

<b>SBI LHO BANGALURU</b>					
<b>TENDER BOQ FOR ELECTRICAL WORK</b>					
<b>PROPOSED ELECTRICAL FOR STATE BANK OF INDIA, STRESSED ASSET RECOVERY BRANCH (SARB), LC ROAD, BENGALURU</b>					
<b>S.No.</b>	<b>Item Description</b>	<b>Qty.</b>	<b>Unit.</b>	<b>Rate.</b>	<b>Amount.</b>
<b>ELECTRICAL WORK:</b>					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR 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/HFFR PVC insulated copper conductor single core cable etc. as required. Group C	38	Point		
2	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit as required.				
2.1	2x1.5 Sq.mm + 1x 1.5 Sq.mm earth wire	20	Metre		
2.2	2x2.5 Sq.mm + 1x 2.5 Sq.mm earth wire	352	Metre		
2.3	2x4Sq.mm + 1x 4 Sq.mm earth wire	434	Metre		
2.4	2x6Sq.mm + 1x 6 Sq.mm earth wire	20	Metre		
2.5	4x10Sq.mm + 2x 6 Sq.mm earth wire	20	Metre		
3	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
3.1	20mm dia	19	Metre		
3.2	25mm dia	622	Metre		
3.3	40mm dia	31	Metre		
4	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required				
4.1	3pin 5/6 A socket outlet	46	Each		
4.2	15/16 A switch	26	Each		

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
5	Supplying and fixing Two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc.as required.	4	Each		
6	Supplying and fixing modular blanking plate on the existing modular plate and switch box excluding modular plate as required.	20	Each		
7	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required.				
7.1	1 or 2 Module (75mmx75mm)	24	Each		
7.2	3 Module (100mmx75mm)	1	Each		
7.3	8 Module (125mmx125mm)	10	Each		
8	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc.as required.				
8.1	1 or 2 Module	26	Each		
8.2	3 Module	1	Each		
8.3	8 Module	10	Each		
9	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/ 6 & 15/ 16 A modular socket outlet and 15/ 16 A modular switch, connections etc. as required.	26	Each		
10	installation, Testing and Commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS/HFFR PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	4	Each		
11	Installation, Testing and Commissioning of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.				
11.1	Upto 450 mm sweep	3	Each		
12	Wiring for Group controlled (looped) light point /fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 Sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit and earthing the point with 1.5 Sq.mm FRLS/HFFR PVC insulated copper conductor single core cable etc. as required Group C.				

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
12.1	Group C	18	Point		
13	<p>Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required.</p> <p>Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.</p> <p>Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.</p>				
13.1	<p>12 way , Double door 1No 5A to 32A DP MCB 1No 25A DP RCCB 30 ma to 100ma 8Nos 5A to 32A SP MCB</p>	1	Each		
14	<p>Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required.</p> <p>Supplying and fixing 5 A to 40 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.</p> <p>Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required</p>				
14.1	<p>6 way (4 + 18), Double door 1No 40A FP MCB 3Nos 40A DP RCCB 30 ma to 100ma 12Nos 5A to 32A SP MCB</p>	1	Each		
14.2	<p>8 way (4 + 24), Double door 1No 63A FP MCB 3Nos 63A DP RCCB 30 ma to 100ma 12Nos 5A to 32A SP MCB</p>	1	Each		

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
15	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	1	Each		
16	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
16.1	12 way , Double door 2No 63A FP MCB	1	Each		
17	LED Panel light 2x2 ft. (System lumen efficacy $\geq 105$ <math><120 \text{ lm/Watt}</math>) Supplying, installation, Testing & Commissioning of Panel light 2x2 ft., Recessed/surface of following body material and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -5 0C to 40 0C, internal surge protection of 2.5 KV with Short & Open circuit protection, THD < 10% , P. F. $\geq 0.95$ , IP20, CRI >80,UGR (Unified Glare Rating) < 19, Flicker free, (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with,70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc.				

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
	as required with Minimum 5 year OEM warranty. System lumen efficacy $\geq 105$ <120 lm/Watt output .LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness > 1.20 mm)				
17.1	36 watt	11	Each		
18	LED Down lighter (SMD Type) (System lumen efficacy $\geq 105$ < 120 lm/Watt ) Supplying, Installation, Testing & Commissioning of LED Recessed/ surface Down lighter (Round/ square/ Rectangular) SMD type of following body material with PMMA and prismatic diffuser and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -50C to 400C, internal surge protection of 2.5 KV with Short & Open circuit protection , THD< 10% , P. F. $\geq 0.95$ , IP20, CRI >80,UGR (Unified Glare Rating) < 19, Flicker free (flicker should be below 5%), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K /4000°K / 5700°K / 6500°K (As per ANSI Bin), SDCM (Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be confirming to relevant BIS standards. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing Complete in all respect i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty.				
	System lumen efficacy $\geq 105$ and <120 lm/Watt output. LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C) Powder coated die cast /Extruded aluminium Body including trim				
18.1	8-10 watt	4	Each		

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
19	LED Batten light (System lumen efficacy >135lm/Watt) Supplying, installation, Testing & Commissioning of LED surface mounted Batten light of following body material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency >85% ,Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range-5 0C to 40 0C, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P.F.≥0.95, IP20, CRI >80, Flicker free (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/Embossing/ Screen printing on housing complete in all respect i/c external connections with 1.5 sqmm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty.				
	System lumen efficacy >135 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted.. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness > 1.20 mm)				
19.1	18-22 watt	20	Each		
20	LED Down lighter (COB Type) (System lumenefficacy ≥105 < 120 lm/Watt ). Supplying, installation, Testing & Commissioning of LED Recessed/ surface Down lighter (Round/square/ Rectangular) COB Type of following body material and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -5 0C to 40 0C, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P.F.≥0.95, IP20, CRI >80, UGR (Unified Glare Rating) < 19, Flicker free (flicker should be below 5%), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K / 6500°K (As per ANSI Bin), SDCM				

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
	(Standard Deviation Color Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be confirming to relevant BIS standards. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing Complete in all respect i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy $\geq 105$ and $< 120$ lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C) Powder coated die cast /Extruded aluminium Body including trim with Aluminium Reflector				
20.1	8 - 10 watt	8	Each		
21	Brush Less Direct Current (BLDC) Fan without Remote Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal( Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies,shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories				
	including safety pin, nut bolts, washers, temperature rise=75 0C (max.), insulation resistance more than 2mega ohm, suitable for 230 V, 50 Hz, single phase AC supply, Ceiling Fan compliant to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required.				
21.1	1200mm, service value $\geq 6.0$ CM/Min/Watt, air delivery 210 CM/Min (Minimum)	4	Each		

S.No.	Item Description	Qty.	Unit.	Rate.	Amount.
22	Supply, installation testing and commissioning of 150mm Sweep Size Exhaust Fan. The fan should have Automatic front shutter which protects against foreign objects, Light weight exhaust ideal for mounting on glass window or wall. Powerful 100% copper motor ensures robust performance. Corrosion protection with rust proof body and blades, For AC supply 50 Hz, 240 V and Air Delivery : 280CMM , Speed: 1350 rpm in the existing opening i/c making fixing arrangement and connection with 3 core 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc as required.	2	Each		
23	Supplying, installation testing and commissioning of 450 mm sweep heavy duty Metal Body exhaust fan suitable for 1400 RPM to operate on 230 V single phase AC supply in the existing opening i/c making fixing arrangement and connection with 3 core 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc as required.	1	Each		
24	Supply and fixing of end termination by PG gland with necessary lugs for 2Rx6Sqmm +1Rx6Sqmm wire	4	Each		
25	Supply and fixing of end termination by PG gland with necessary lugs for 4Rx10Sqmm +2Rx6Sqmm wire	4	Each		
	<b>TOTAL (EXCLUDING GST)</b>				