

Schedule of Quantity (Electrical)

Name of work :- Renovation of Prekshagrih, Shilphaat, Kalavithika and Kala Bhawan of North Central Zone Cultural Centre at Allahabad. (SH: Renovation of Auditorium Hall comprising of Wall Panelling, False Ceiling, Stage Flooring etc. including Electrical Works comprising of Internal EI, Sub-station, DG set, Audio-Video System, Stage Lighting, VRF Air Conditioning Fire Fighting etc.

Sl. N.	Description of Item	Qty.	Unit	Rate i/e CI & GST	Amount	Remarks
	C-1 (Internal Electrical Installation)					
1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.					
a)	Group C	42	Pt	2,099.12	88,163.00	DSR-22 1.3.3
1.2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.					
a)	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	60	Mtr	372.04	22,322.00	DSR- 22 1.7.1
b)	4 X 1.5 sq. mm + 2 X 1.5 sq. mm earth wire	30	Mtr	523.36	15,701.00	DSR derived
c)	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	50	Mtr	807.79	40,390.00	DSR-22 1.7.5
d)	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	110	Mtr	1,871.57	2,05,873.00	DSR-22 1.7.11
1.3	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	120	Mtr	492.64	59,117.00	DSR-22 1.5
1.4	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	50	Mtr	753.17	37,659.00	DSR-22, 1.6
1.5	Supply and laying of 1 No. XLPE insulated, PVC sheathed, unarmoured cables with stranded aluminium conductor suitable for rated voltage of 1.1 KV grade confirming to IS:7098 (Pt.1) /88 with ammendment No.1 of following sizes, on cable tray etc as reqd.					
a)	3 x 1.5 sq. mm	300	Mtr	173.00	51,900.00	M/R
b)	3 x 2.5 sq.mm	150	Mtr	250.00	37,500.00	M/R
1.6	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	10	each	769.11	7,691.00	DSR-22, 1.56
1.7	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.	20	each	666.71	13,334.00	DSR-22, 1.32
1.8	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	6	each	827.13	4,963.00	DSR-22, 1.57

C= NIL
I= NIL
O=NIL

AE(P)(C)

EE(C)

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
1.9	Supply, Installation, Testing & Commissioning of full glow recessed mounting DALI dimmable 600 mm x 600 mm nominal size LED fitting, min lumen output 3000 lumen, colour temperature as per Engineer-in-charge, system efficacy ≥ 110 lumen/watt, PF ≥ 0.95 , operating voltage range of 140 -270 V, CRI ≥ 80 , THD $\leq 15\%$, LED fitting must comply UGR values < 19 for general operation complete as read.	52	each	6,045.00	3,14,340.00	M/R
					-	
1.10	Supply, Installation, Testing & Commissioning of LED Recessed Mounted DALI Dimmable Circular Downlighter made of pressure die cast aluminum housing with high transitivity reflector, minimum system efficacy ≥ 100 lumens/watt, colour temperature as per Engineer-in-charge, CRI ≥ 80 , PF ≥ 0.95 & THD $\leq 15\%$, an operating Voltage Range of 140 - 270 V. Minimum Internal Surge Protection 2.0 KV, Minimum system Lumens 1000. LED Downlighter must comply UGR Values < 19 for general operations etc. complete as required.	22	each	5,225.00	1,14,950.00	M/R
					-	
1.11	SITC of Surface Mount 1200 mm (N.S.) LED Batten having ≥ 2000 system lumens, lumen efficacy ≥ 110 Lumen/watt, Luminaire housing should be made of CRCA steel sheet with PC diffuser. CCT of Luminaire 5700/6500 K, CRI ≥ 80 . LED life of 50000 hrs, suitable for input voltage range of 140 - 270 Volts, THD $\leq 10\%$, PF ≥ 0.90 , inbuilt Surge protection - 4 KV, including mounting arrangement etc. complete as required.	15	each	1,790.00	26,850.00	M/R
					-	
1.12	Supplying, Installation, testing and commissioning of 600mm (Nominal Size) LED luminaire made of extruded aluminium housing suitable for 220 Volt AC with system lumens output of 900 or higher, colour temp ≥ 5700 K and system efficacy ≥ 110 lumens/watt, colour rendering index (CRI) Ra ≥ 80 . Service life $> 50,000$ h. P.F > 0.95 , THD $< 15\%$, Protection IP20, complete etc as reqd.	2	each	497.00	994.00	M/R
					-	
1.13	SITC of Recess Mounting type 600 mm x 600 mm (nominal size) LED Luminaire, having ≥ 3300 system lumens, lumen efficacy ≥ 110 Lumen /watt, Luminaire housing should be made of Powder coated CRCA with PMMA diffuser, CCT ≥ 5700 K, CRI ≥ 80 . life 50000 hrs. input voltage range of 140-270Volts, THD - $< 15\%$, PF ≥ 0.95 , Surge protection - 2 KV, IP 20 including hanging / mounting arrangement if required and dismantling of existing light fitting, complete as required.	8	each	3,088.00	24,704.00	M/R
					-	
1.14	Supplying, Installation, Testing & commissioning of single phase A.C. 230 volt 50 Hz, 250 mm sweep fresh air fan,i/c plastic louver shutter etc. as reqd.	2	each	1,972.00	3,944.00	M/R
					-	
1.15	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
a)	12 way (4 + 36), Double door	4	each	14,600.50	58,402.00	DSR-22 2.5.3
					-	
1.16	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board / vertical DB including drilling holes in cubicle panel, making connections, etc. as required.					
a)	125 A,36KA,FPMCCB	2	each	9,339.63	18,679.00	DSR-22,2.2.14
					-	
b)	100 A,30KA,FPMCCB	2	each	8,786.70	17,573.00	DSR-22,2.2.13

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
				-	-	
1.17	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. (But without MCB/RCCB/Isolator)			-	-	
a)	12 way, Double door	2	each	2,633.85	5,268.00	DSR-22, 2.3.3
				-	-	
1.18	Supplying and fixing following rating & following poles, 240/415 volts, "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.			-	-	
a)	5 amps to 32 amps Single Pole, 10 KA	94	each	291.25	27,378.00	DSR-22,2.10.1
1.19	Supplying and fixing following 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.					
a)	Single Pole 63 Amp MCB	2	each	659.00	1,318.00	M/R
b)	Double Pole 63 Amp MCB	2	each	1,369.00	2,738.00	M/R
1.20	Fabrication, supply, installation, testing and commissioning of cubical type outdoor weather proof panel having fully compartmentalized design, double door, from CRCA sheet steel of 2 mm thick for frame work and covers, 3mm thick for gland plates, processed by 7 tank treatment, vermin and dust proof, hinged front openable double leaf door, 400 Amp capacity aluminium alloy bus bars of high conductivity, DMC/SMC bus bars supports with short circuits withstand capacity of 31 MVA for 1 sec., bottom base channel of MS section not less than 50mm x 50mm x 5mm thick, entire panel shall have a suitable size common earth bar at the rear with 02 Nos. earthstud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor S/C cable, cable alley, cable glands plates in two half complete as required. (The drawing shall be approved by the department before fabrication)	2.20	Sqm	31,026.00	68,257.00	M/R
1.21	Supply and fixing of the following switchgears / accessories in the existing cubicle panel as per the drawing approved by engineer incharge.					
	Incoming					
a)	250 Amp 4 Pole 25 KA, MCCB with thermal magnetic release with rotary handle and spreader links.	1	each	47,415.00	47,415.00	M/R
	Outgoings					
a)	125 A FP 16 KA MCCB with thermal magnetic release with rotary handle and spreader links.	1	each	16,288.00	16,288.00	M/R
b)	100 A FP 16 KA MCCB with thermal magnetic release with rotary handle and spreader links.	2	each	16,211.00	32,422.00	M/R
c)	63 A FP 16 KA MCCB with thermal magnetic release with rotary handle and spreader links.	5	each	16,211.00	81,055.00	M/R
d)	Multifunction Meter	1	each	8,617.00	8,617.00	M/R
e)	6 Pin 16 Amp modular type socket with 16 Amp modular type switch	1	each	1,101.00	1,101.00	M/R
f)	LED type Phase indicating lamps (RYB) (set of 3)	1	set	204.00	204.00	M/R
g)	CTs class accuracy 1 (Set of 3)	1	set	835.00	835.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
1.22	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.					
(a)	450 mm widthX50mm depthX2.0mm thickness	50	Mtr	1,507.49	75,375.00	DSR-22.4.6.6
(b)	300 mm widthX50mm depthX1.6mm thickness	50	Mtr	1,095.64	54,782.00	DSR-22.4.6.4
(c)	150 mm widthX50mm depthX1.6mm thickness	150	Mtr	814.61	1,22,192.00	DSR-22.4.6.2
1.23	Supplying & fixing of 6 module Pop up boxes with power, LAN sockets and audio- video cabling, with Matt aluminium finish and aluminium base with a super slim design, The Pop up has a press button for smooth opening of the lid, In-built wiring accessories are provided to access the power and data connections. The base box consists of positive earthing terminals, thus ensuring safety.	8	each	6,770.00	54,160.00	M/R
1.24	SITC of 2 KVA online UPS having inbuilt isolation transformer technology, input power- single phase 160V - 260V, 50 Hz sine wave, output power- single phase 230+ 1% pure sine wave, 30 minute backup, consisting of suitable quantity of 18 AH SMF batteries to be fixed upon suitable size primer coated MS body rack, having capacity for 20% overload limit for minimum 5 minutes, overall efficiency \geq 90%, crest factor 03:01, degree of protection IP20, alongwith suitable size cabling (copper) for input, output & interconnections, alongwith LED indicators and LCD display, alarms & other protections complete with testing and commissioning etc as required. UPS shall have valid BIS CRS certification as applicable.	2	Set	53,207.00	1,06,414.00	M/R
	(Dismantling)					
1.25	Dismantling of all old / defective / worn out electrical installations like switch, sockets, lights, fans, distribution boards, electrical wirings, audio system components, video system components, indoor stage lights, light bars, suspenders, switches, mixers / amplifiers, cable trays, motors, panels alongwith accessories, AC indoor/outdoor units, refrigerant piping, ductings, grills, alongwith all other associated wirings & cabling, electrical panels alongwith switchgears and accessories etc as reqd.	1	Job	29,119.00	29,119.00	M/R
1.26	Less for credit of following old / defective dismantled materials obtained during execution of work, complete as required.					M/R
a)	AC System with Indoor / Outdoor Units, cabling, Refrigerant piping, ductings, electrical panel alongwith switchgears and accessories	1	LOT	-1,83,250.00	-1,83,250.00	M/R
b)	Light bars, suspenders, wiring & cabling, patch panel, cable trays, electrical panel, switchgears, accessories	1	LOT	-45,000.00	-45,000.00	M/R
c)	Audio video system alongwith amplifiers / mixers and wirings and cablings	1	LOT	-45,000.00	-45,000.00	M/R
d)	Electrical Installations					M/R
	(i) Wirings (Assorted)	1	LOT	-33,750.00	-33,750.00	M/R
	(ii) Fittings (Assorted)	60	each	-250.00	-15,000.00	M/R
	(ii) Ceiling Fans (Assorted)	34	each	-300.00	-10,200.00	M/R
	(iv) Switchboards (Assorted)	1	LOT	-500.00	-500.00	M/R
	Total of C-1 (Internal Electrical Installation & Dismantling)				15,67,287.00	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	C-2 (Sub Station)					-
2.1	Supply, installation, testing & commissioning of package type/unitised 11/0.433 kV Outdoor sub-station, 250 kVA made from G. I. enclosure complete as required conforming to IEC 62271 only and relevant IS specifications including K10 Temperature Class as applicable for the rating, Internal Arc of 21 KA/1 Sec. IAC AB on PCC foundation (as per OEM drawing) complete with suitable sizes of GI Pipes for incoming /outgoing cables/earthing strips etc. and consisting of following complete as required. Angle iron frame of size 40x40x5mm NS all along the corner of the foundation. Vacuum Interrupter, RMU, LT panel switchgear, meter and CSS enclosure shall be of same make to ensure life cycle optimization					-
	HT Switchgear					-
(A)	11kV 630Amps 21KA/3 sec. Non-Extensible Ring Main Unit Compact switchgear consisting of 2 nos. fixed manual operated Load Break Switch and 1 nos. fixed manual operated Vacuum Circuit Breaker Module in SF6 insulated stainless steel enclosure with series trip, self powered microprocessor based numerical over current and earth fault relay protection. HT RMU shall preferably have site replaceable bushings to have very less downtime in the event of bushing breakage and restoration can be done immediately without sending the RMU to OEM Works. Interconnection between HT Switchgear and primary of transformer shall be done through 1C x 3R x 95 sq.mm Aluminium XLPE cable. - 1 No.					-
	Microprocessor based IDMT Relay for Circuit Breakers - Self Powered along with series trip coil.					-
	Capacitive voltage indication fixed type system with LED					-
	SF6 Gas pressure indicator.					-
	Padlocking facility.					-
	Protection CT shall be minimum 40/1A, 2.5VA, 5P10 -3Nos					-
	LBS module will have FPI.					-
	All modules of the RMU shall be suitable for cable termination of 3C x 300 sq.mm Al XLPE Cable, incoming cable termination is included within the scope of work - 1 Set					-
	Transformer					-
	250 KVA 11/0.433 kV Dyn11 Copper Wounded Cast Resin Dry Type Transformer with Off load tap links of -7.5% to +5% @ 2.5% with WTI scanner, Class of Insulation: H, IP 24 protection, Temperature rise limits 115 deg.C over an ambient of 40 degrees. Losses shall be as per latest ECBC-2017 code with WTI scanner. - 1 No. Winding Temperature Indicator with 1 alarm and trip contact-1No. Surge arrester in the HV side. - 1 Set					-
	LT Switchgear					-
	400 A, 4 pole Aluminium BUSBAR					-
	400 Amps 433V 4P 50Hz 36KA Type MCCB - 1 No.					-
	Multifunction meter of class 0.5 accuracy. - 1 No.					-
	OUTDOOR ENCLOSURE					-

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	Outdoor type encloser of 1.5 mm (For non load bearing members) & 2.0 mm (For load bearing members) thickness having modular construction of Galvanised Sheet Steel in suitable design for better heat dissipation and providing robust construction. The Enclosure shall have IP54 degree of protection for HT & LT switchgear compartment & IP 23 degree of protection for transformer compartment. The enclosure exterior shall be painted with epoxy based powder paint (colour RAL 7032). Each compartment will be provided with the door and pad locking arrangement. The design of the enclosure should be type tested for suitably handling any arcing inside the compartment for providing better safety to the operator. The compartment illumination lamp with door operated switch shall be provided for each compartment.	1	each	28,43,623.00	28,43,623.00	M/R
					-	
2.2	Supply, Installation, testing and commissioning of 11kV 630 Amps, 21KA for 3 Sec. SF6 insulated, One side extensible, outdoor duty (IP54) 3 way Ring main unit manually operated in combination of 2 nos. VCB modules and 1 nos. Load Break switch consisting of copper busbar in SF6 insulated 304 (Non-Ferrite Non-Magnetic Grade) stainless steel enclosure of thickness 2.5mm with manometer. The HV switchgear and control gear should be confirming to IEC 62271-100, IEC-62271-200-2003 & IEC-60694-1996. The RMU should be internal arc tested for 21KA for 1Second with IAC-AFLR classification for gas tank and Cable Box. Vacum Interrupter of VCB should be RMU Manufacturer's own make. Each feeder of should have voltage presence indicator. All the type test certificated as per IEC from Third party lab to be submitted.				-	
	RMU Should have followings:				-	
	1 No. microprocessor based Self powered numerical relay with over Current/ earth fault & short circuit protection with each VCB feeder.				-	
	3 Nos. Protection CT shall be of Burden 2.5VA, ratio 50/1A, Class of Accuracy class 5P10 for O/C and E/F protection for each VCB.				-	
	1 No. Manometer for each tank				-	
	1 No. Fault Passage indicator for each LBS	1	each	9,33,869.00	9,33,869.00	M/R
					-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	Main Feeder Pillar				-	
2.3	SITC of cubical type outdoor weather proof feeder pillar suitable for 415v, 3 Phase, 4 wire 50 Hz Ac supply system fabricated in fully compartmentalized design, double door, from CRCA sheet steel of 2 mm thick for frame work and covers, 3mm thick for gland, plates i/c cleaning and finishing complete with 7 tank process for powder coating in approved shade, hinged front openable double leaf door, having following Amp capacity TPN aluminium alloy bus bars of high conductivity, DMC/SMC bus bars supports with short circuits withstand capacity of 31 MVA for 1 sec., bottom base channel of MS section not less than 50mm x 50mm x 5mm thick, entire panel shall have a suitable size common earth bar at the rear with 02 Nos. earthstud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor S/C cable, cable alley, cable glands plates in two half, i/c providing and fixing of following switch gears, 400 mm deep and 300 mm above ground level, plastering, finishing etc. complete as required. (for MCCB ICs = 100% ICu)					
	Cubicle panel (min face area 2.00 sqmtr 400 mm deep)				-	
	Incomer				-	
i)	1 No. 400 Amp 4 Pole 36 KA, MCCB with thermal magnetic release with rotary handle and spreader links				-	
ii)	TPN bus bar 500 Amps rating.				-	
iii)	LED type Phase indicating lamps (RYB)				-	
iv)	LT danger notice plate (Vitrified type)				-	
	Outgoings				-	
i)	2 Nos. 250 A FP 25 KA, MCCB with thermal magnetic release with rotary handle.				-	
ii)	1 No. 200 A FP 25 KA, MCCB with thermal magnetic release with rotary handle.				-	
iii)	1 Nos. 125 Amp FP 16 KA, MCCB with thermal magnetic release with rotary handle.				-	
iv)	2 Nos. 100 Amp FP 16 KA, MCCB with thermal magnetic release with rotary handle.				-	
v)	Multi function Meter - 1 No.				-	
vi)	6/16 Amps 6pin modular type socket with switch -1Set	1	each	2,65,170.00	2,65,170.00	M/R
					-	
2.4	Supplying, Installation, testing & commissioning of indoor type cubical 75 KVAR APFC panel IP42 protection and mechanical strength IK10 suitable for 415 V, 3 Phase, 4 wire 50 Hz AC supply system as per IEC 61439 and the panel should be rated for 50kA. (Refer attached detailed specifications of LT Panel) with mentioned system, fabricated in compartmentalized (preferably) design from CRCA sheet steel, suitable capacity extensible type TPN aluminium alloy bus bars of high conductivity, DMC/SMC bus bars of high conductivity, DMC/SMC bus bar supports, with short circuit withstand capacity of 31 MVA for 1 Sec. bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, fabrication shall be done in transportable sections, entire panel shall have a common copper earth bar of size 25 mm x 5 mm at the rear with 2 Nos. earth stud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with suitable size PVC insulated copper conductor S/C cable, cable alleys, cable gland plates in two half i/c providing and fixing 3 nos. 300/5 ratio sensing CT's and following switch gears. Incoming and Metering for APFC Panel (75 KVAr) :					
	160 Amp FP 36 KA MCCB with microprocessor based (O/C,S/C,E/F) Protection with spreader link + Extended rotary handle - 1No.				-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	Ammeter, Digital Type, 96sq. mm CTR-/5A, AUX. 230V AC Flush type with ASS- 1No.					
	600/5A CL-1, 15VA Resin cast CT - 3Nos.					
	Auxiliary contact with 8NO+0NC,240V AC -6Nos.					
	On delay timer- 1No.					
	R/Y/B Phase indicator LED type 230V AC -3Nos.					
	Exhaust fan with filter- 3Nos.					
	Auto manual selector switch for APFC - 1No.					
	12 Step APFC Relay- 1No.					
	6A SP MCB 10KA For control ckt.- 3Nos.					
	10A DP MCB 10kA C Curve- 1No.					
	APFC capacitor banks :					
(a)	20 KVAR Capacitor bank (2Nos.)					
	63A TP 35KA MCCB With thermal magnetic based (O/C,S/C) Protection with spreader link- 1No					
	Cap. Duty contactor for 20 KVAR with 2NO+2NC Contacts-1No.					
	20KVAR Capacitor bank MPP Type heavy duty, 440V AC-1No.					
	ON/OFF Push button- 2Nos					
	ON/OFF Indication, LED Type, 230V AC- 2Nos.					
(b)	15 KVAR Capacitor bank (1 No.)					
	40A TP 35KA MCCB With thermal magnetic based (O/C,S/C) Protection with spreader link- 1No.					
	Cap. Duty contactor for 15 KVAR with 2NO+2NC Contacts-1No.					
	15KVAR Capacitor bank MPP Type heavy duty, 440V AC-1No.					
	ON/OFF Push button- 2Nos					
	ON/OFF Indication, LED Type, 230V AC - 2Nos					
(c)	10 KVAR Capacitor bank (1 Nos.)					
	32A TP 35KA MCCB With thermal magnetic based (O/C,S/C) Protection with spreader link- 1No.					
	Cap. Duty contactor for 10 KVAR with 2NO+2NC Contacts-1No.					
	10KVAR Capacitor bank MPP Type heavy duty, 440V AC-1No.					
	ON/OFF Push button- 2Nos.					
	ON/OFF Indication, LED Type, 230V AC - 2Nos.					
(d)	5 KVAR Capacitor bank (2 No.)					
	16A TP 35KA MCCB With thermal magnetic based (O/C,S/C) Protection with spreader link- 1No.					
	Cap. Duty contactor for 5 KVAR with 2NO+2NC Contacts-1No.					
	5KVAR Capacitor bank MPP Type heavy duty, 440V AC-1No.					
	ON/OFF Push button- 2Nos.					
	ON/OFF Indication, LED Type, 230V AC - 2Nos.	2	Set	2,32,095.00	4,64,190.00	M/R
2.5	Supplying and laying of one No. HT cable of 11 KV grade XLPE armoured Al. Conductor conforming to IS 7098 (Part II) 1985 amended upto date and of following size in the existing DWC HDPE RCC/HUME/METAL pipe etc. as required.					
a)	3 x 120 sq.mm	10	Mtrs	2,292.00	22,920.00	M/R
2.6	Supplying and laying of one No. HT cable of 11 KV grade XLPE armoured Al. Conductor conforming to IS 7098 (Part II) 1985 amended upto date and of following size in masonry open duct/loop / loose for connection etc. as required.					
a)	3 x 120 sq.mm	15	Mtrs	2,278.00	34,170.00	M/R
2.7	Supplying and Laying of Aluminium conductor, armoured, XLPE insulated, PVC inner sheathed, power cable 1.1 KV Grade conforming to IS : 1554 in the existing RCC/ HUME/ METAL pipe as required.					
a)	3.5 x 240 sq.mm	260	Mtrs.	2,311.00	6,00,860.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
2.8	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.					
(a)	160 mm dia (OD-160 mm & ID-135 mm nominal)	260	Mtrs.	547.25	1,42,285.00	DSR-22, 14.16.4
(b)	120 mm dia (OD-120 mm & ID-103 mm nominal)	10	Mtrs.	418.68	4,187.00	DSR-22, 14.16.3
2.9	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	2	Set	15,743.93	31,488.00	DSR-22, 5.6
2.10	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	2	Set	8,501.13	17,002.00	DSR-22, 5.4
2.11	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	10	Mtrs	1,764.62	17,646.00	DSR-22, 5.10
2.12	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and refilling etc. as required.	10	Mtrs	803.24	8,032.00	DSR-22, 5.11
2.13	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	15	Mtrs	1,322.04	19,831.00	DSR-22, 5.14
2.14	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	25	Mtrs	277.61	6,940.00	DSR-22, 5.15
2.15	Providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in foundation of package type sub station etc including form work etc as required.	6	Cum	8,379.56	50,277.00	DSR Civil-21, 4.1.3
Total of C-2 (Sub Station)					54,62,490.00	
C-3 (DG Set)						
3.1 (A)	Providing, Installing, Testing and Commissioning of 'silent type water cooled DG set alongwith having Prime Power Rating of 125 KVA, 415 volts suitable at 1500 RPM, 0.8 lagging power factor at 415 Volt suitable for 50 Hz, 3 phase system & for 0.85 Load Factor and consisting of the followings:-					
(a)	Diesel Engine:					
	Diesel engine, 4 stroke, water cooled, electric start of suitable for above output of alternator at 40 Degree C, 50% RH & at 1000 Meter MSL and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% over loading for one hour after 12 hours of continuous operation. The engine will be fitted complete with all the required accessories.					
(b)	Engine mounted instrument Panel fitted with and having digital for following:					
(i)	Start-stop switch with key					
(ii)	Water temperature indication					
(iii)	Lubrication oil pressure indication					
(iv)	Lubrication oil temperature indication					

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
(v)	Battery charging indication				-	
(vi)	RPM indication				-	
(vii)	Over speed indication				-	
(viii)	Low lub. Oil trip indication				-	
(ix)	Engine Hours indication				-	
(c)	Alternator :				-	
	Synchronous alternator rated at 125 KVA, 415 Volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 40 Degree C, 50% RH & at 1000 Meter MSL. The alternator shall be having SPDP enclosure, brushless, continuous duty, self excited and self-regulated through AVR conforming to IS: 4722/ BS: 2613 suitable for tropical conditions and with class F/H insulation.				-	
(d)	Base Frame :				-	
	Both the engine and alternator shall be mounted on suitable base frame made of MS channel with necessary reinforcement which shall be installed on suitable cement concrete foundation and vibration isolation arrangement as per recommendations of manufacturer.				-	
(e)	Fuel Tank:				-	
	Daily service fuel tank of (as per OEM) capacity fabricated with suitable (as per OEM) thick M.S. sheet (as per OEM) complete with all standard accessories and fuel piping between fuel tank and diesel engine with M.S. class C pipes of suitable dia complete with valves, level indications & accessories as required as per specifications.				-	
(f)	Exhaust System:				-	
	Dry exhaust manifold with residential exhaust silencer and catalytic convertor.				-	
(g)	Starting System:				-	
	12V DC starting system comprising of starter motors: voltage regulator and arrangement for initial excitation complete with suitable nos. of batteries (25 plates, 180 Amp, Hour capacity lead acid type) as required as per specifications.				-	
(h)	Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per specifications.				-	
3.1	AMF Panel				-	
(B)	Fabricating, Supplying, Installing, Testing & Commissioning of automatic mains failure control suitable for 125 kVA silent type DG set complete with relays, timers, set of CT's for metering & protection and energy analyses to indicate currents, phase & line voltages, frequency, power factor, KW, KVA, KWH etc & provision for overload, short circuit, restricted earth fault, under frequency including control cabling from AMF panel to diesel engine (communication cable) and elsewhere if required, all complete and inter locking i/c the following:-				-	
(a)	200amps, 36 kA, 3 pole MCCB (Ics=100%Icu) = 2 nos. with thermomagnetic/ microprocessor based overload, short circuit and earth fault protections.				-	
(b)	200 amps, 3 pole, AC 3 duty power contactors- 2 Nos.				-	
(c)	Auto/Manual/Test/Off -Selector Switch.				-	
(d)	Over voltage relay, reverse power relay and under voltage relay.				-	
(e)	1 set of 3 Nos. current transformer 15 P 10 accuracy for protection & 15 VA class-I for metering.				-	
(f)	Energy analyzer unit to indicate current voltage, frequency, power factor & KWH.				-	
(g)	Indicating lamps for load on mains & load on set				-	
(h)	Fuse for instruments				-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
(i)	Battery charger, complete with transformer/rectifier with D.C. voltmeter & DC ammeter, selector switch for trickle, off and boost and inbuilt auto cut off for overcharge protection of battery.					-
(j)	Main supply failure monitor					-
(k)	Supply failure timer					-
(l)	Restoration timer.					-
(m)	Control unit with three impulse automatic engine start/ stop and failure to start lockout.					-
(n)	Impulse counter with locking and reset facility.					-
(o)	ON/OFF/Control circuit switch with indicator.					-
(p)	Audio annunciation (Provided either on engine control panel or AMF panel.)					-
(i)	High water temperature					-
(ii)	Low lubricating oil pressure					-
(iii)	Engine over speed					-
(iv)	Engine fails to start					-
(v)	Full load/maximum load warning	1	Set	10,89,359.00	10,89,359.00	M/R
						-
3.2	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	4	Set	8,501.13	34,005.00	DSR-22, 5.4
						-
3.3	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required	15	Mtrs	803.24	12,049.00	DSR-22, 5.11
						-
3.4	Providing and fixing 25mmx5mm G.I. strip on surface or in recess for connections etc. as required.	15	Mtrs	277.61	4,164.00	DSR-22, 5.15
						-
3.5	Providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in foundation of pump, DG set etc including form work etc as required	4	Cum	8,379.56	33,518.00	DSR (C)-21, 4.1.3
						-
	Total of C-3 (DG Set)				11,73,095.00	
	C-4 Audio and video projection system					
	A- (Audio System)					
4.1	Supplying, Installation, Testing and Commissioning of Main FOH flying Speakers of High-output, high-quality sound, Rotatable Constant-directivity 60° x 40° horn, 96dB or more sensitivity, 130dB Peak Max SPL, Six or more M10 threaded suspension points, 2 Way/3 Way, single 15" LF and min 1 x 1.25 inch or more compression driver, Coverage (HxV) : Minimum 60°x40° or better; Frequency Range: 35 - 20000 Hz, Power Handling (100 hrs): 500W-550W or more Continuous, 2000W-2200W or more Peak, Sensitivity: 96dB or more, Max. SPL/1m: 130 dB or better, Nominal Impedance : 8Ω/16Ω or better, Enclosure Material: Birch plywood.	4	each	1,22,486.00	4,89,944.00	M/R
						-
4.2	Supplying, Installation , testing and commissioning of High Power Subwoofer with Minimum driver 2 x 15"-18" or better; Power handling : 1000W Continuous, Power handling 100hrs (peak): 5200W-5400W or better, Frequency range: 33Hz - 1.5kHz or better; Sensitivity of 100dB SPL or better, Max SPL (peak): 138dB SPL; Coverage: Omnidirectional; plywood birch enclosure, complete as required.	2	each	1,77,250.00	3,54,500.00	M/R
						-

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
4.3	Supplying, Installation, Testing & Commissioning of front fill loudspeaker , Two way wall with Driver: 2 x 6.0" LF and 1 x 1" HF or better, Long term Power rating (Program): 300W or more and Power rating (Peak) 600W or more, Sensitivity (1W/1m): 92dB or more, Sound Pressure (Max. W/1m): 117dB or more, Frequency Response (-10dB): 58Hz-20kHz, dispersion angle: 90°H x 80°V or more with Wall mount bracket etc. as complete required.	4	each	42,837.00	1,71,348.00	M/R
					-	
4.4	Supplying, Installation, Testing and Commissioning of Active stage Monitor 12" two way, 1" HF Compression Driver or better, Frequency Range: 70Hz-18KHz or better, Max SPL 125dB, Coverage (H X V) :75X50degree or more, including inbuilt amplifier of class D delivering a power of 1000W or more as required.	2	each	62,449.00	1,24,898.00	M/R
					-	
4.5	Supplying, Installation, Testing and Commissioning of Two way Wall mount speaker , Driver Size: 1 x 3" LF or better and 1 x 0.50" HF or better, Power rating (continuous): 200W @ 8 Ohm or better, Sensitivity (1W/1m): 89 dB or better, Max. SPL: 112 dB or better, Frequency Response: 98Hz-20kHz or better, Certification: IP rating : IPx4. complete as required.	2	each	16,088.00	32,176.00	M/R
					-	
4.6	Supplying, Installation, Testing and Commissioning of dual Channel Class-D Network Power amplifier shall have built in Digital signal Processor, suitable for all above offered arrayable loudspeakers & Ground stack Subwoofer Units. Amplifier Output power per Channel: Should be 700 or more @ 8 ohms, 1250W or more @ 4 ohms; should support bridge mode for high power output 2500W or above @ 8 ohms / 16 ohms, Total Output channel: 4 numbers or more; Frequency Response : 20Hz-20KHz (+/-0.25dB) or better, THD : less than 0.35%, Crosstalk < 80dB, Signal to noise ratio : 108 dB or more, Limiter: Limiters for Inputs and Outputs with Thermal Limiting, Pilot Tone Monitoring, Peak limiter; etc.	5	each	1,66,092.00	8,30,460.00	M/R
					-	
4.7	Supplying, Installation, Testing and Commissioning of dual Channel Class-D Network Power amplifier , should have built in Digital signal Processor, suitable for all above offered arrayable loudspeakers & Ground stack Subwoofer Units. Amplifier Output power per Channel: Should be 600W or more @ 4 Ohms, 350 W or more @ 8 ohms; Support support bridge mode for high power output 1200W or above @ 8 Ohms / 16 Ohms, Total Output channel: 4 numbers or more; Frequency Response : 20Hz-20KHz (+/-0.25dB) or better, THD : less than 0.35%, Crosstalk < 80dB, Signal to noise ratio : 108dB or more, Limiter: Limiters for Inputs and Outputs with Thermal Limiting, Pilot Tone Monitoring, Peak limiter; etc.	1	each	1,07,473.00	1,07,473.00	M/R
					-	
4.8	Supply, Installation, Testing & Commissioning Wireless handheld Microphone with UHF transmission greatly enhances range, reliability and scalability of 30.5 MHz Bandwidth or better will allow for min. 48 channels; min. 1200 selectable frequencies; Lithium Ion battery pack delivers up to 12 hours of operation (up to 8 hours of operation with AA batteries) Transducer principle dynamic with Pick-up pattern cardioid / Supercardioid or better, Sound Pressure Level 144 dB or more, Transmit power (radiated) Audio link: 10mW - 50mW or more: etc	2	each	51,171.00	1,02,342.00	M/R
					-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
4.9	Supply, Installation, Testing & Commissioning digital lapel Microphone set with UHF transmission greatly enhances range, reliability and scalability of 30.5 MHz Bandwidth or more, will allow min 48 channels and min 1200 selectable frequencies; Lithium Ion battery pack delivers up to 12 hours of operation (up to 8 hours of operation with AA batteries); Should come with Lapel & Headworn microphone as Transducer principle condenser with Pick-up pattern cardioid / Omnidirectional or better, Sound Pressure Level 130 dB or more Transmit power (radiated) Audio link: 10mW - 50mW or more complete as reqd.	1	each	69,048.00	69,048.00	M/R
4.10	Supply, Installation, Testing & Commissioning of Active directional / Omnidirectional antenna complete as reqd.	2	each	27,634.00	55,268.00	M/R
4.11	Supplying, Installation, testing and commissioning of 4-Way OEM recommended antenna splitter/Combiner complete as reqd.	1	each	29,700.00	29,700.00	M/R
4.12	Supplying, Installation, testing and commissioning of Gooseneck Microphone of 12" or more with Polar Pattern : Cardioids, Element : Condenser, Frequency Range : 80Hz-20000Hz complete with shock mount from same OEM as reqd..	2	each	20,259.00	40,518.00	M/R
4.13	Supplying, Installation, Testing and Commissioning of Wired Handheld microphone with Dynamic Cardioid / Supercardioid or better polar pattern, Frequency Range: 40Hz-20kHz or better; Sensitivity: 2.6 mV/Pa or better; Excellent feedback rejection; Rugged metal housing with Switch complete as reqd.	4	each	7,815.00	31,260.00	M/R
4.14	Supplying, Installation, Testing and Commissioning of wired instrument microphone with Audio frequency bandwidth: 50 - 20000 Hz or better, Sensitivity : 2.5 mV/Pa or better, Electrical impedance: 600 Ohms or better. Recommended load impedance: 2000 Ohms or better. Polar Pattern: Cardioids. complete as reqd.	4	each	11,172.00	44,688.00	M/R
4.15	Supplying, Installation, Testing and Commissioning of Low Loss Antenna Cable with minimum length of 20 mtr etc complete as required.	2	each	4,841.00	9,682.00	M/R
4.16	Supply, Installation, Testing & commissioning of Modular Digital Signal processor with 8 or more inputs, 8 or more outputs, Should support 256 channels digital audio bus; Dante connectivity, sampling rate: 48KHz or better, processor : 24 bit / 40 bit or better floating point, Digital Dante network audio, Dual RJ45 Dante complete as reqd.	1	each	2,60,842.00	2,60,842.00	M/R
4.17	Supply, Installation, Testing & Commissioning of 22 - 24 Channel Mixing Console with 22 - 24 Line Inputs (14 mono + 4 stereo) or better, 4 GROUP Buses, 1 Stereo Bus, 4 AUX Sends + FX Sends or better, 1 Matrix out, 48V phantom power per channel, High-grade effects: SPX with 24 programs, 24-bit/192kHz, two in/two out USB Audio functions, etc. complete with standard accessories as required.	1	each	56,534.00	56,534.00	M/R
4.18	Supplying, Installation, testing & commissioning of Connectors and other Miscellaneous accessories as required.	1	LOT	19,800.00	19,800.00	M/R
4.19	Supplying, Installation, testing & commissioning 4 point XLR Junction BOX with accessories as required.	3	each	16,830.00	50,490.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
4.20	Supplying and Laying of 2 core 1.5 sqmm insulated copper conductor loudspeaker Cable having Insulation dia: 2.8mm ± 10%, insulation thickness: 0.60mm ± 10%, Sheath Thick: 0.9mm ± 10%, Conductor Resistance at 20 °C : 13.30 Ω/km complete as reqd.	200	Mtr	129.00	25,800.00	M/R
					-	
4.21	Supplying and Laying of 2 core 2.5 sqmm PVC insulated copper conductor loudspeaker Cable have working Temp (- 20 Deg C to 70 Deg C), Cross section : 2.5 Sq Mm, Conductor -30 x 0.25mm, Resistance ≤ 12.5 Ohm / Km, Capacitance ≤ 150pF/mtr, Inductance ≤ 0.56µH/ mtr, Outer Dia - 7 mm ± 10% complete as required.	300	Mtr	158.00	47,400.00	M/R
					-	
4.22	Supplying and Laying of 2 core PVC insulated, shielded microphone Cable, conductor resistance ≤ 85 Ω/km, insulation resistance ≥ 0.1 GΩ x km, cond. construction stranded bare copper, cond. cross section 0.22 sqmm, insulation polyethylene (PE), core arrangement 2 cores + twisted cotton tracers, shielding bare copper spiral shield outer jacket PVC, matt, overall diameter 6.15 mm or better complete as required	100	Mtr	129.00	12,900.00	M/R
					-	
4.23	Supplying and laying of 24 core snake Microphone cable.	100	Mtr	396.00	39,600.00	M/R
					-	
4.24	Supplying, Installation, testing & commissioning of 42 U Equipment Rack , 19" floor standing amplifier aluminum rack for housing control equipment for conference, voting, video archival, distribution and hall display system, maximum height 42U/600 x 600 mm Single / Dual, as per the equipment requirement. There shall be provision of at least 1 U blank plate spacing between two adjacent equipment so as to provide sufficient ventilation Fan at top of each rack for heat dissipation, Power Supplying panel with MCB at the bottom Front transparent door and rear metallic glass door with locking facility Adequate power Supplying sockets for the equipment to be fitted in the rack Rack to be mounted on a suitable frame grouted onto the floor Cable entry plate in the bottom of the rack.	1	each	58,500.00	58,500.00	M/R
					-	
	B-(Video System)					
4.25	Supply, Installation, Testing and Commissioning of 1-chip DLP LASER Phosphor Projector having minimum 6000 Lumens, min. 20000 hours lamp life, 1920 x 1200 WUXGA Resolution or better, 3D ready, 2000:1 Contrast Ratio or better, inputs: HDBaseT,HDMI2.0, DVI-D, VGA, Active 3D sync,USB, Audio jack (3.5mm), Motorised zoom and focus, alongwith 1.25-2.0 lens or better & projector mountin bracket etc. complete with installation as per the site requirement.	1	each	5,94,000.00	5,94,000.00	M/R
					-	
4.26	Supplying, installation, testing and commissioning motorized Cyclorama screen of approx 10 mtr (L) x 5 mtr (W) , complete with MS mounting structure as required.	1	each	3,96,000.00	3,96,000.00	M/R
					-	
4.27	Supply, Installation,Testing & Commissioning of Retractable Motorised Micro Ceiling Lift Voltage: 220V 50Hz, , Dimension: 550×500×200mm (L×W×H), Bottom Panel Dimension: 50cmx50cm, Loading Capacity: 30KG, Travel Length:100cm etc. all complete	1	each	72,000.00	72,000.00	M/R
					-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
4.28	Supplying, Installation, Testing and Commissioning of Metallic Podium with Presentation Plate 1x HDMI, 1xVGA / 1xUSB C-Port with Audio, provision to place Interactive 21" or higher Tablet Monitor, gooseneck microphone, PC, etc complete with standard accessories complete as required.	1	each	89,100.00	89,100.00	M/R
					-	
4.29	Supplying, Installation, Testing and Commissioning of PC having atleast i5 or better processor along with 8 GB or better RAM and Keyboard , Mouse.	1	each	49,500.00	49,500.00	M/R
4.30	Supplying, Installation, testing & commissioning of 21.5" diagonal interactive Full HD Monitor with Battery free pen/Stylus, with reverse side eraser functionality, Resolution: 1920 x 1080 pixels or better, Brightness: min 200 nits, Video input: DVI-I, HDMI, VGA// USB C-Port; Colours: 16.7M or better colors, Min. Contrast ratio: 1000:1, with tempered glass, Operating system: windows Xp/Vista/7/8/10/MAC etc. complete as required.	1	each	79,200.00	79,200.00	M/R
4.31	Supplying, Installation, Testing and Commissioning of 4k60 Transmitter and Receiver set , Transmitter- Multiformat 4x1 auto switching transmitter having inputs 1 x VGA/ 1xUSB C-Port with audio, 1 x DP, 1 x HDMI, 1 x USB-C, 3 x USB 2.0 port, outputs: 1 x HDBT out and Ethernet port and Receiver having inputs 1 x HDBT , 2 x HDMI and Output: 1 x HDMI 4k scaled output along with audio , 3 x USB 2.0 port, 2 x RS-232, 2 x Relay and Ethernet port, HDCP2.2 compliant, 4K60 4:4:4 support as required.	1	each	3,13,115.00	3,13,115.00	M/R
					-	
4.32	Supplying, Installation, testing & commissioning of Connectors and other Miscellaneous accessories as required.	1	LOT	9,900.00	9,900.00	M/R
					-	
4.33	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.			-	-	
a)	1 run of cable	100	Mtr	64.85	6,485.00	DSR-22,1.53.1
b)	2 run of cable	100	Mtr	109.23	10,923.00	DSR-22,1.53.2
					-	
4.34	Supplying and Laying of 3 feet HDMI-HDMI Patch Cord, HDMI 19-pin male to HDMI 19- pin male connections, Compliant with High Speed HDMI specifications, Up to 10.2 Gbps at 340 MHz bandwidth or better, Fully shielded to reduce EMI and other interference sources, Molded PVC boot.	4	each	2,970.00	11,880.00	M/R
	Total of C-4 (Audio and video projection system)				46,97,274.00	
	C-5 (Stage Lighting and Drapery)					
5.1	SITC of Light fixture mouting clamp Customized for suspending on fixed bars on stage Made up of Aluminium Die casted MS threaded T bolt with yellow passivation finish Complete with black powder coating matt black finish. Safe working load 150 KG Suitable to Batten of size 30 OD to 60 OD.	74	each	711.00	52,614.00	M/R
					-	
5.2	SITC of Light Fixture dual safety Chain made up of GI wire rope Bundled and twisted together Having load bearing capacity above 200 Kgs Sleeve on the rope. Carabiner Clip.	74	each	299.00	22,126.00	M/R
					-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
5.3	SITC of Motorised integrated fly bar/winch of 12 Mtr length Motorized Light bar, The winch shall be provided with 01 Nos. of suitable HP, 1440 RPM, 3Ph. Volt:415v, FREQ:50Hz, AMB:50 degree. It shall have an Worm Reduction Gearbox. It shall have an drive unit base frame to fix the gear box which contains one shaft.This mechanisam shall have drum plate of 300mm x 5mm thickness with 6 groves where the GI wire rope of 5mm can be wound up when the hoist moves up and down. 415VAC Motor with Brake for Motor System to lift a load of 180Kg as a safe working load which should be synchronized with Control Panel. Wifi operated wireless smart working functianilty Dual barrel duly powder coated Made using 40NB dual construction.Matt black texture finish paint to keep them rust free. Powder coated 60 microns black matt finish with proper chemical treatment and methodology. Wifi based up down lightbar movement Specially designed compact gear box 3phase AC motor with DC Brake 1.5HP. Provided with Necessary pulley, guide pulleys, GI wire rope with winding drum. Compact gear box along with suitable capacity of motor unit. Upper and lower limit controller, Safe working load of 200Kg. Cable management system.	3	each	2,13,580.00	6,40,740.00	M/R
5.4	SITC of Fixed stage Lighting bar/winch of 12Mtr length constructed with an dual conctruction light bar with an Mild Steel 40NB 48 OD black matt finish with an supporting flat patti of height 200mm x 50mm x 6mm thickness for the extra support with 2 holes of 10mm diameter to fix the cable tray on the bar.It shall be hanged from the roof to accommodate various type of stage light fittings. It should hang from the roof with MS anglewhich is suspended from the fish plate of 5mm thickness which is fixed on the rcc roof with 4 anchor fastners of 10mm which can take an total load of 400KG each fastner. Made out of 48mm Outer Dai, 40 Nominal Bore Material for the light bar shall be of Mild Steel Pipe. Dual Barrel Arrangement Powder coated with Matt black Texture Fixing Through Suspenders as per site conditions Dual Construction and an additional End Caps on the Pipe end shall be there Light bar Length shall be of customized type as per site condition. Upper pipe of dual construction is used to anchor the bar lower pipe is effectively used to hang the light fixtures.	4	each	28,665.00	1,14,660.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
5.5	SITC of Fixed Side Lighting bar/winch of 6Mtr length constructed with an dual construction light bar with an Mild Steel 40NB 48 OD black matt finish with an supporting flat patti of height 200mm x 50mm x 6mm thickness for the extra support with 2 holes of 10mm diameter to fix the cable tray on the bar.It shall be hanged from the roof to accommodate various type of stage light fittings. It should hang from the roof with MS anglewhich is suspended from the fish plate of 5mm thickness which is fixed on existing truss with 4 anchor fastners of 10mm which can take an total load of 400KG each fastner. Made out of 48mm Outer Dai, 40 Nominal Bore Material for the light bar shall be of Mild Steel Pipe. Dual Barrel Arrangement Powder coated with Matt black Texture Fixing Through Suspenders as per site conditions Dual Construction and an additional End Caps on the Pipe end shall be there Light bar Length shall be of customized type as per site condition. Upper pipe of dual construction is used to anchor the bar lower pipe is effectively used to hang the light fixtures.	2	each	14,187.00	28,374.00	M/R
5.6	SITC of Fixed stage side Ladder as per the design, Size of 600mm x 2400mm, Manual movable Made out of 40NB 48 OD Mild steel pipe dual barrel Dual Barrel Arrangement Dual Construction Powder coated with Matt black Texture Single Construction with Cross connecting pipes Cross connecting Pipes at every 600mm Ladder can be moved along the track or adjusted as required, Spud & Trolley, Pivoted or Fixed Suspenders as per site conditions Made out of 48mm Outer Dai, 40 Nominal Bore Material for the light bar shall be of Mild Steel Pipe. Dual Barrel Arrangement Powder coated with Matt black Texture Fixing Through Suspenders as per site conditions Dual Construction and an additional End Caps on the Pipe end shall be there Light bar Length shall be of customized type as per site condition. Upper pipe of dual construction is used to anchor the bar lower pipe is effectively used to hang the light fixtures.	6	each	12,463.00	74,778.00	M/R
5.7	SITC of Power Distribution Electrical panel having a Incomer of 160A. Floor mount / rack mount / wall mount. Miniature circuit brakers of single poles shall be fixed of different ratings from 6/10/16/25A as per the lighting fixtures.Wiring inside the module for power, control protection and instrument etc. shall be done with use of 1100 V confirming to IS 694 and IS 8130. All welding slag grounded off and welding pits wiped smoothwith plumber metal. Power panels shall be designed in such a way that the internal space is sufficient for hot air movement, and the electrical component does not attain temperature more than 40 degree Celsius.Fabricated panel shall be supported with ms angles of size 25mm x 25mm with an 1.8mm thickness sheet to hold the structure. Nuetral separation made, Voltmeter, Ammeter display for reading visualization Individual MCB control for 25 outgoing circuits RYB Phase indicators internally wired using IS certified wires and cables. Terminal for both incoming and outgoing cable shall be suitable for 1100 volts grade, aluminum/copper conductor PVC insulated and sheathed, armoured cable and shall be suitable for connections. Provided with ivery connectors for the internal terminations and external outgoing connecting points Custom built as per specification and project requirement.	1	each	1,49,755.00	1,49,755.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
5.8	SITC of C Profile MS Hot rolled strips 3mm thick with Added U bend used either to create basic supports Customized 40 x 50mm, All the materials under gone through 7 tank process with various chemical treatment to keep them rust free Makes easier to suspend all the stage machineryDuly powder coated Matt black texture finish paint.	300	each	751.00	2,25,300.00	M/R
					-	
5.9	SITC of 64-way Power Marshalling Box made up of MS Sheet metal fabricated housing black powder coated and ivery connectors for the internal terminations and external outgoing connecting points, fibre / brass glands of suitable size.	1	each	31,332.00	31,332.00	M/R
					-	
5.10	SITC of Auxilary Marshalling Box, made up of MS Sheet metal fabricated housing black powder coated and ivery connectors for the internal terminations and external outgoing connecting points, fibre glands of suitable size.	1	each	50,131.00	50,131.00	M/R
					-	
5.11	SITC of Flat Cable Wire harness required to provide the input power to the sockets on the hoists connecting between grid level circuit box to on hoist circuit box with below specifications: FRLS Multi core Copper cable 18 Cores of Power each with 2.5 Sq. mm copper wires insulated with high insulated material 2 DmX 5 core cables with low noise Width of the flat cable 120mm approx. Clips at each bending of the cable to act as retractor unit Long life, no breakage, smooth folding.	7	each	14,907.00	1,04,349.00	M/R
					-	
5.12	SITC of Motor Control Panel with DMX & Manual selectable Motor control panel, cum remote control 7 Way providing power input for motors internally neatly wired with contactors having individual motor control with required Push button, Emergency trip, RYB indicators, Supply Indictor and necessary meters operated wireless smart working funcianailty for the motorised lightbars should be there with one neutral & phase connection slots and with 2 vertual load terminals. For each motor unit one each switch units should be installed inside the control panels which can be controlled with our mobiles, touch pads only with the internet connection. Motor control panel duly powder coated with ash grey paint texture finish with all required safety features.	1	each	1,02,807.00	1,02,807.00	M/R
					-	
5.13	SITC of Cable Connecting Circuit Boxes for the termination of cables from Electrical panel to the grid level point made out of MS Sheet metal fabricated housing duly powder coated with matt black texture finish paint, fitted with required channels and ivery connectors, necessary glands etc.	7	each	1,542.00	10,794.00	M/R
					-	
5.14	SITC of Suspender cum clamps designed made out of MS material 150mm x 150mm x 5mm MS Base plate Threaded rod, Black powder coated finish. All the materials under gone through 7 tank process with various chemical treatment to keep them rust free Suitable to hold various type grid & other rigging systems.	54	each	1,631.00	88,074.00	M/R
					-	
5.15	SITC of Internal Earthing System with suitable size of copper bare conductors all along the cable trays, metal parts and Installation Hardwares.	1	each	25,555.00	25,555.00	M/R
					-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
5.16	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.					-
a)	300 mm width X 50 mm depth X 1.6 mm thickness	160	Mtrs	1,095.64	1,75,302.00	DSR-22,4.6.4
						-
5.17	SITC of FRLS Copper unarmoured Flexible cable IS694 having 3 Core each of 1.5 Sq mm size.	1850	Mtr	107.00	1,97,950.00	M/R
						-
5.18	SITC of FRLS Copper unarmoured Flexible cable IS694 having 7 Core each of 1.5 Sq mm size.	150	Mtr	238.00	35,700.00	M/R
						-
5.19	SITC of FRLS Copper unarmoured Flexible cable IS694 having 4 Core each of 4 Sq mm size.	50	Mtr	361.00	18,050.00	M/R
						-
5.20	SITC of FRLS Copper unarmoured Flexible cable IS694 having 12 Core each of 1.5 Sq mm size.	250	Mtr	403.00	1,00,750.00	M/R
						-
5.21	SITC of Suspender cum clamps designed made out of MS material 150mm x 150mm x 5mm MS Base plate Threaded rod, Black powder coated finish All the materials under gone through 7 tank process with various chemical treatment to keep them rust free Suitable to hold various type grid & other rigging systems.	40	each	1,631.00	65,240.00	M/R
						-
5.22	SITC of C Profile MS Hot rolled strips 3mm thick with Extra U bend used either to create basic supports Customized 40 x 50mm, All the materials under gone through 7 tank process with various chemical treatment to keep them rust free Makes easier to suspend all the stage machinery Duly powder coated Matt black texture finish paint.	70	Mtr	702.00	49,140.00	M/R
						-
5.23	SITC of Motor Control Panel with DMX & Manual selectable Motor control panel, cum remote control 2 Way providing power input for motors internally neatly wired with contactors having individual motor control with required Push button, Emergency trip, RYB indicators, Supply Indicator and necessary Mtrs. Wifi operated wireless smart working functionality for the motorized light bars should be there with one neutral & phase connection slots and with 2 virtual load terminals. For each motor unit one each switch units should be installed inside the control panels which can be controlled with mobiles, touch pads only with the internet connection. These device should configure with the wifi routers for getting internet access through wireless. Motor control panel duly powder coated with ash grey paint texture finish with all required safety features.	1	each	41,154.00	41,154.00	M/R
						-
5.24	SITC of Cable Connecting Circuit Boxes for the termination of cables from Electrical panel to the grid level point made out of MS Sheet metal fabricated housing duly powder coated with matt black texture finish paint, fitted with required channels and every connectors, necessary glands etc.	2	each	1,542.00	3,084.00	M/R
						-

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
5.25	SITC of On Stage Fixed Frill Bar 13Mtrs Length Straight as per the design made out of 40NB 48 OD Mild steel pipe dual barrel, supported to hang the frill, connected with MS Flat duly powder coated with matt black texture finish paint. All the materials under gone through 7 tank process with various chemical treatment to keep them rust free.	3	each	18,311.00	54,933.00	M/R
					-	
5.26	SITC of On Stage Fixed Valance Bar 12.6 Mtrs Length Straight as per the design made out of 40NB 48 OD Mild steel pipe dual barrel, supported to hang the Main Valance of the stage system duly powder coated with matt black texture finish paint. All the materials under gone through 7 tank process with various chemical treatment to keep them rust free.	1	each	18,098.00	18,098.00	M/R
					-	
5.27	SITC of Fixed Wing Structure designed as per site condition for a height approx 4.9Mtr x 1.5Mtr made up of MS Square tube of 25mm or higher size rested on pivotable trolley on a track for the rotation of the wing. Adjustable floor locking screw jacks with rubber grips. Inverted 4-Wheeler Trolley with Flexi Adaptor Clamp and 360° Rotatable.	6	each	17,991.00	1,07,946.00	M/R
					-	
5.28	SITC of Motorized DMX operated Main Curtain 12.6 Mtrs straight, Centre parting as per design. This mechanism shall be provided with 01 Nos. of suitable HP, 1440 RPM, 3Ph. 415VAC Motor with Brake for Motor System to lift a load which should be synchronized with Motor Control centre Panel. Winch shall have 3 phase motor with an RPM of 1440, FREQ:50Hz, IP:55, AMB:50 degree. have an Worm Reduction Gearbox. It shall have an drive unit base frame to fix the gear box which contains one shaft Made up of I Track for complete length Curtain holding trolleys with ball bearing for smoother noiseless movement consisting of 4 wheeler master trolley and 2 wheeler trolley placed uniformly at specific interval of 200mm /250 mm throughout the track Overlap of 0.5~0.9 Mtrs. Motor Cable termination box Trolleys uniformly distributed along the track at every 200/250mm with a master trolley. Open and close limit controller. Drive unit with suitable capacity of motor unit, Wire Rope shall be of GI Wire ropes Min 3mm Dia Undergone through various chemical treatment to keep them rust free, Black texture finish paint. All metal parts are powder coated.	1	each	1,89,328.00	1,89,328.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
5.29	SITC of Motorized DMX operated Middle/Rear Curtain 12.8 Mtrs straight, Centre parting as per design. This mechanism shall be provided with 01 Nos. of suitable HP, 1440 RPM, 3Ph. 415VAC Motor with Brake for Motor System to lift a load which should be synchronized with Motor Control centre Panel. Winch shall have 3 phase motor with an RPM of 1440, Volt:415v, DUTY:S1, FREQ:50Hz, IP:55, AMB:50 degree. It shall have an Worm Reduction Gearbox. It shall have an drive unit base frame to fix the gear box which contains one shaft Made up of I Track for complete length Curtain holding trolleys with ball bearing for smoother noiseless movement consisting of 4 wheeler master trolley and 2 wheeler trolley placed uniformly at specific interval of 200mm /250 mm throughout the track Overlap of 0.5~0.9 Mtrs. Motor Cable termination box Trolleys uniformly distributed along the track at every 200/250mm with a master trolley. Open and close limit controller. Drive unit with suitable capacity of motor unit, Wire Rope shall be of GI Wire ropes Min 3mm Dai Undergone through various chemical treatment to keep them rust free, Black texture finish paint. All metal parts are powder coated.	2	each	1,90,448.00	3,80,896.00	M/R
5.30	SITC of FRLS Copper unarmoured Flexible cable IS694 having 7 Core each of 1.5 Sq mm size.	40	Mtrs	244.00	9,760.00	M/R
5.31	SITC of FRLS Copper unarmoured Flexible cable IS694 having 4 Core each of 4 Sq mm size.	30	Mtrs	361.00	10,830.00	M/R
5.32	SITC of High quality Velvet fabric fire retardant treated as per approved colour and make with a gathering of 100% stitched as per site condition, curtain provided with eyelets at every 200/250mm for uniform fixing on to curtain trollies (For Main Curtain) Size:12.6Mtr x 4.9 Mtr.	1	each	1,39,641.00	1,39,641.00	M/R
5.33	SITC of Glazzed Cotton fabric fire retardant treated as per approved colour and make with a gathering of 50% stitched as per site condition, curtain provided with eyelets at every 200 / 250mm for uniform fixing on to curtain trollies (For Rear Curtain) Size: 12.8Mtr x 4.9 Mtr.	1	each	96,721.00	96,721.00	M/R
5.34	SITC of Glazzed Cotton fabric fire retardant treated as per approved colour and make with a gathering of 50% stitched as per site condition, curtain provided with eyelets at every 200/250mm for uniform fixing on to curtain trollies (For Frills) Size: 11Mtr x 1Mtr.	3	each	18,659.00	55,977.00	M/R
5.35	SITC of High quality Velvet fabric fire retardant treated as per approved colour and make with a gathering of 100% stitched as per site condition, curtain provided with eyelets at every 200/250mm for uniform fixing on to curtain trollies (For Main Valance) Size: 12.6Mtr x 1.2Mtr.	1	each	34,198.00	34,198.00	M/R
5.36	SITC of Glazzed Cotton fabric fire retardant treated as per approved colour and make with a gathering of 0% stitched as per site condition, curtain provided with eyelets at every 200/250mm for uniform fixing. (For Wing) 4.9Mtr x 1.5Mtr	4	each	18,136.00	72,544.00	M/R
Total of C-5 (Stage Lighting and Drapery system)					35,78,631.00	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	C-6 (VRV/VRF Air Conditioning System)					
6.1	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14 HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R 410 A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5.					DSR VRV/VRF
(a)	ODU	120	HP	18,675.85	22,41,102.00	AC-19, 1
6.2	Supply and Installation of Centralized controlling system to monitor and control from one place within the premises.	1	Set	3,37,188.00	3,37,188.00	M/R
6.3	Supply, Installation, Testing and Commissioning of Factory built ceiling floor mounted Horizontal/Vertical DX coil double skin type AHU complete with motors, fans as detailed below, fire retardant flexible connections, compatible with DX VRV outdoor condensing unit, comprising of thermostatic control and expansion valves VRV/VRF kit including Y-joints, filter sections with pre-filter.) TEFC motor of class 'F' insulation, drain connections, stainless steel drain pan complete with all fittings and accessories, necessary isolation arrangement, complete as required & as specified with the following capacities. The efficiency of the motors/fans should comply relevant standards.) Capacity 6000 CFM i/c starter panel for AHU. The firm has to maintain the indoor condition as DBT 74± 2 ⁰ F & RH 55± 5%.	3	Sets	5,89,289.00	17,67,867.00	M/R
6.4	Supply, Installation, testing and commissioning including vacuumization and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :					
a)	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	85	Mtr	668.99	56,864.00	DSR VRV/VRF-19, 5.4
b)	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	75	Mtr	804.37	60,328.00	DSR VRV/VRF-19, 5.5
c)	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	75	Mtr	984.13	73,810.00	DSR VRV/VRF-19, 5.6
6.5	Supplying & laying of flexible drain pipe of following size industrial quality nylon braided hose pipe from indoor unit to outside of the building for draining out discharged water i/c making good the damages etc complete as reqd.					
a)	32 mm dia	40	Mtr	251.00	10,040.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
					-	
6.6	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.					
a)	Thickness 0.80 mm sheet	70	Sqm	1,436.96	1,00,587.00	DSR-22,16.12.2.2
				-	-	
b)	Thickness 0.63 mm sheet	50	Sqm	1,228.75	61,438.00	DSR-22,16.12.2.1
				-	-	
6.7	Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.					
a)	25 mm	120	Sqm	1,101.32	1,32,158.00	DSR-22,16.23.2
				-	-	
6.8	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	20	Sqm	10,359.04	2,07,181.00	DSR-22,16.15
				-	-	
6.9	Supplying & fixing of powder coated extruded aluminium Return Air Grills with louvers but without volume control dampers complete as required.	20	Sqm	6,723.99	1,34,480.00	DSR-22,16.16
				-	-	
6.10	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc., as per specifications.	20	Sqm	8,016.45	1,60,329.00	DSR-22,16.13
				-	-	
6.11	Supplying, Fixing, testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring, the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications.					
a)	Fire damper	1	Sqm	12,127.07	12,127.00	DSR-22,16.20.1
				-	-	
b)	Actuator	3	each	11,318.15	33,954.00	DSR-22,16.20.2
				-	-	
6.12	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.					
a)	300 mm width X 50 mm depth X 1.6 mm thickness	80	Mtrs	1,095.64	87,651.00	DSR-22,4.6.4
				-	-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
613	SITC of Tube Axial flow fans complete with tube Long casing (Motor should completely be accommodated inside the fan casing), Al impeller with adjustable blade angles at site, bird screen, gravity louvers, necessary nut bolts, Necessary transition piece and canvas connection for proper installation, directly coupled TEFC sq.Cage IP-55, Class-F and IE-3 High efficiency induction motor mounted on vibration isolators suitable for 415 V+ 10%, 50 Hz 3 phase electric supply complete as per the technical specifications enclosed. The fans shall be AMCA certified. The shall be completed in all respect and should match the specification, Drawings and Schedule. The fan shall have low sound level exceeding not more than 80 dBA at three meter distance at both ends. (Room Condition). All fans after assembly shall be dynamically trim-balanced. Fan shall be AMCA certified for Air performance and Fan Efficiency.			-	-	
	15000 CFM Fresh Air Fan with 30 Static Pressure	2	each	1,72,926.00	3,45,852.00	M/R
					-	
6.14	SITC of Tube Axial flow fans complete with tube Long casing (Motor should completely be accommodated inside the fan casing),Al impeller with adjustable blade angles at site, bird screen, gravity louvers, necessary nut bolts, Necessary transition piece and canvas connection for proper installation, directly coupled TEFC sq.Cage IP-55, Class-F and IE-3 High efficiency induction motor mounted on vibration isolators suitable for 415 V+ 10%, 50 Hz 3 phase electric supply complete as per the technical specifications enclosed. The fans shall be AMCA certified. The fan for smoke Exhaust shall be rated for a minimum of 250 Deg C for a minimum of 2 hours application. The shall be completed in all respect and should match the specification, Drawings and Schedule. The fan shall have low sound level exceeding not more than 80 dBA at three meter distance at both ends. (Room Condition). All fans after assembly shall be dynamically trim-balanced. Fan shall be AMCA certified for Air performance and Fan Efficiency.					
	15000 CFM Exhaust Air Fan with 30 Static Pressure	2	each	1,80,028.00	3,60,056.00	M/R
					-	
6.15	SITC of cubical type outdoor weather proof feeder pillar suitable for 415v, 3 Phase, 4 wire 50 Hz Ac supply system fabricated in fully compartmentalized design, double door, from CRCA sheet steel of 2 mm thick for frame work and covers, 3mm thick for gland, plates i/c cleaning and finishing complete with 7 tank process for powder coating in approved shade, hinged front openable double leaf door, having 200 Amp capacity TPN aluminium alloy bus bars of high conductivity, DMC/SMC bus bars supports with short circuits withstand capacity of 31 MVA for 1 sec., bottom base channel of MS section not less than 50mm x 50mm x 5mm thick, entire panel shall have a suitable size common earth bar at the rear with 02 Nos. earthstud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor S/C cable, cable alley, cable glands plates in two half, i/c providing and fixing of following switch gears,					
					-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	300 mm above ground level, plastering, finishing etc. complete as required. (for MCCB ICs = 100% ICu) (Depth not less than 300 mm)					
	Incoming :-					
a)	125 Amp 16 KA, 4 Pole MCCB thermal magnetic release with rotary handle and spreader links - 1 No.					
	Outgoing:-					
a)	32 Amp 16 KA TPN MCB - 6 Nos.					
b)	5 HP DOL Starter - 6 Nos					
c)	Multifunction Meter - 1 No.					
d)	Digital type voltmeter of 0 - 500 volts range with selector swtich - 1 No.					
e)	Digital type 3 phase ampere Meter of 0 - 30 amps range with selector swtich C.T. 60 / 5 for amps- 6 Nos.					
f)	Single phase preventor - 6 Nos					
g)	Electronic overload & dry run pump protection relay with current sensor - 3 Nos					
h)	Phase indication light & 6 Amp MCB for Protection (RYB) - 3 Nos					
i)	LED Indicating lamp for ON/OFF - 12 Nos	1	each	1,10,863.00	1,10,863.00	M/R
6.16	SITC of cubical type outdoor weather proof feeder pillar suitable for 415v, 3 Phase, 4 wire 50 Hz Ac supply system fabricated in fully compartmentalized design, double door, from CRCA sheet steel of 2 mm thick for frame work and covers, 3mm thick for gland, plates i/c cleaning and finishing complete with 7 tank process for powder coating in approved shade, hinged front openable double leaf door, having following Amp capacity TPN aluminium alloy bus bars of high conductivity, DMC/SMC bus bars supports with short circuits withstand capacity of 31 MVA for 1 sec., bottom base channel of MS section not less than 50mm x 50mm x 5mm thick, entire panel shall have a suitable size common earth bar at the rear with 02 Nos. earthstud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with 2.5 sqmm PVC insulated copper conductor S/C cable, cable alley, cable glands plates in two half, i/c providing and fixing of following switch gears,					
	300 mm above ground level, plastering, finishing etc. complete as required. (for MCCB ICs = 100% ICu) (Depth not less than 300 mm)					
	Incoming :-					
a)	200 Amp 36 KA, 4 Pole MCCB thermal magnetic release with rotary handle and spreader links - 1 No.					
	Outgoing :-					
a)	100 A 16 KA 4 Pole MCB - 2 Nos.					
b)	63 A 16 KA 4 Pole MCB - 3 Nos.					
c)	40 A 16 KA TPN MCB - 4 Nos.					
d)	5 HP DOL Starter - 4 Nos					
e)	Multifunction Meter - 1 No.					
f)	Digital type voltmeter of 0 - 500 volts range with selector swtich - 1 No.					
g)	Digital type 3 phase ampere Meter of 0 - 30 amps range with selector swtich C.T. 60 / 5 for amps - 4 Nos					
h)	Single phase preventor - 4 Nos					
i)	Phase indication light & 6 Amp MCB for Protection (RYB) - 3 Nos					
j)	LED Indicating lamp for ON/OFF -8 Nos	1	each	1,03,409.00	1,03,409.00	M/R
6.17	Supply and laying of 1 No. XLPE insulated, PVC sheathed, armoured cables with stranded aluminium conductor suitable for rated voltage of 1.1 KV grade confirming to IS:7098 (Pt.1) /88 with ammendment No.1 of following sizes, on wall / surface / Cable tray etc as reqd.					
(a)	3.5 x 120 sq.mm	50	Mtrs	1,299.00	64,950.00	M/R
(b)	3.5 x 70 sq.mm	50	Mtrs	1,487.00	74,350.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
					-	
6.18	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	2	Set	8,501.13	17,002.00	DSR-22, 5.4
					-	
6.19	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required	10	Mtrs	803.24	8,032.00	DSR-22, 5.11
					-	
6.20	Providing and fixing 25mmx5mm G.I. strip on surface or in recess for connections etc. as required.	25	Mtrs	277.61	6,940.00	DSR-22, 5.15
					-	
6.21	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	200	Mtrs	47.79	9,558.00	DSR-22, 5.18
					-	
	Total of C-6 (VRV/VRF Air Conditioning System)				65,78,116.00	
	C-7 (INTELLIGENT FIRE ALARM SYSTEM)					
7.1	Supplying, installation, testing and commissioning of microprocessor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.					
(a)	Two Loop Panel	1	Set	2,72,173.70	2,72,174.00	DSR-2022, 17.2.1.2
					-	
7.2	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	90	each	3,251.63	2,92,647.00	DSR-2022,17.2.4
					-	
7.3	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	40	each	314.01	12,560.00	DSR-2022,17.2.5
					-	
7.4	Supplying, installation, testing & commissioning of intelligent addressable programmable sounder complete as required.	4	each	3,016.13	12,065.00	DSR-2022,17.2.6
					-	
7.5	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	4	each	4,404.15	17,617.00	DSR-2022,17.2.14
					-	
7.6	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	400	Mtrs	196.83	78,732.00	DSR-2022,17.5.2
					-	
	Total of C-7 (ADDRESSABLE FIRE ALARM SYSTEM)				6,85,795.00	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	C-8 (Down Comer System)					
8.1	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump)					
(a)	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520.					
(b)	Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.					
(c)	M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.					
(d)	Suitable cement concrete foundation duly plastered and with anti vibration pads.					
(i)	450 lpm at 35 m Head	2	Set	98,075.83	1,96,152.00	DSR-22, 18.4.2
				-	-	
8.2	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :					
(ii)	100 mm dia	60	Mtr	2,906.90	1,74,414.00	DSR-22, 18.7.7
				-	-	
8.3	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.					
(i)	40 m	2	each	13,735.83	27,472.00	DSR-22, 18.17.2
				-	-	
8.4	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required :					
(a)	Stainless Steel (Grade 304)	4	each	5,060.63	20,243.00	DSR-22,18.16.2
				-	-	
8.5	Supplying & fixing 63 mm dia short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required :					
(i)	Stainless Steel (Grade 304)	2	each	1,890.90	3,782.00	DSR-22,18.18.2
				-	-	
8.6	Supplying and fixing of hose cabinet of size 750mm x 600mm x 250mm made of 2 mm thick MS sheet with central opening 6 mm thick glazed glass doors including necessary locking arrangement suitable to accommodate 2 Nos 15 Mtrs long hose pipe- 1No. Branch pipe, and duly painted with post office red externally and white internally complete in all respect etc as required.	2	each	4,808.00	9,616.00	M/R

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
8.7	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required :					
(i)	2 way-100 mm dia M.S. Pipe	1	each	7,670.58	7,671.00	DSR-22, 18.19.1
8.8	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	2	each	20,756.77	41,514.00	DSR-22,18.20
				-	-	
8.9	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	2	each	1,758.93	3,518.00	DSR-22,18.22
				-	-	
8.10	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS13095 of following sizes as reqd :					
(a)	100 mm dia	3	each	7,585.25	22,756.00	DSR-22,18.11.5
				-	-	
8.11	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required :					
(a)	100 mm dia	3	each	12,571.93	37,716.00	DSR-22,18.14.5
				-	-	
	FIRE CONTROL PANEL					
8.12	Fabrication, supply at site, installation, testing and commissioning of floor mounted outdoor type cubical MV Panel, fabricated out of 14 G (2.0 mm) nominal thickness CRCA sheet steel, of suitable size not less than 1.4mtr(W)X0.6mtr(H)X 0.35mtr (D), front and back openable, hinged, single shuttered, double door on front and back, with locking arrangement, good quality dust, damp and vermin proof rubber gaskets, connections and interconnections using suitable size of PVC insulated aluminium conductor single core cables and cable lugs, 2 nos. of 25 mm x 5 mm GI earth strips for earthing, din rail for mounting switchgear, drilling holes, detachable gland plates / knockout plates for facilitating entry / exit of Control cables, cartage from fabricator's premises to site of work, and complete with supplying and fixing of following switchgear and metering instruments etc. as required. (For Pump Control MV Panel)					
	The PANEL shall generally conform to CPWD General Specification for Electrical works, Part-I Internal 2013, Part II External 1994 and Part IV substation equipment 2013 as amended up to date.					
	The panel shall be painted with 7 TANK PROCESSED powder coating process in an approved manner as required.					
	INCOMING (a) 63 A FP MCCB 16 kA Icu, thermomagnetic release with overload and short circuit protection and time delay - 1 No. (b). 100 Amps capacity 4 strip aluminium busbars-01 set. (c) Digital Voltmeter and Ammeter Class 1.0 accuracy - 1 set (d) Current Transformers bar primary type 100/ 5 Amps Class 1.0 accuracy 15 VA burden - 1set. (e) Illuminated push button actuator - 4 Nos. (f) Voltage trip relay - 2 Nos.					
				-	-	

Sl. N.	Description of Item	Qty.	Unit	Rate i/c CI & GST	Amount	Remarks
	OUTGOING (a) 32amps TPN MCB, 10 KA breaking capacity - 2 Nos. (b) Fully automatic star delta starter with inbuilt overload relay, undervoltage relay, illuminated push button actuator and no -voltage trip contactor - 2 nos. (c) Single phasing preventors - 2 nos. (d) LED phase indication lamps with inbuilt toggle switches - 2 sets.	1	Job	70,155.00	70,155.00	M/R
					-	
8.13	Supply and laying of 1 No. XLPE insulated, PVC sheathed, armoured cables with stranded aluminium conductor suitable for rated voltage of 1.1 KV grade confirming to IS:7098 (Pt.1) /88 with amendment No.1 of following sizes, on wall / surface etc as reqd.				-	
(a)	4 x 16 sq.mm	30	Mtr	423.00	12,690.00	M/R
					-	
(b)	3.5 x 35 sq.mm	40	Mtr	545.00	21,800.00	M/R
					-	
8.14	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				-	
(a)	4 X 16 sq. mm (28mm)	4	Set	351.56	1,406.00	DSR-22,9.1.33
				-	-	
(b)	3.5 X 35 sq. mm (32mm)	2	Set	420.96	842.00	DSR-22,9.1.21
					-	
	Total of C-8 (Down Comer System)				6,51,747.00	
Abstract of Cost						
	Total of C-1 (Internal Electrical Installation & Dismantling))				15,67,287.00	
	Total of C-2 (Sub Station)				54,62,490.00	
	Total of C-3 (DG Set)				11,73,095.00	
	Total of C-4 (Audio and video projection system)				46,97,274.00	
	Total of C-5 (Stage Lighting and Drapery system)				35,78,631.00	
	Total of C-6 (VRV/VRF Air Conditioning System)				65,78,116.00	
	Total of C-7 (ADDRESSABLE FIRE ALARM SYSTEM)				6,85,795.00	
	Total of C-8 (Down Comer System)				6,51,747.00	
				Total Rs.	2,43,94,435.00	
				Say Rs.	2,43,94,435.00	

Note:- The rates of the DSR itmes are inclusive of GST @ 18% (Multiplying factor of 1.0633) and cost index of 107 for Prayagraj.