

NATIONAL GAMES SECRETARIAT

PROJECT:ELECTRIFICATION ,AIRCONDITIONING AND FIRE FIGHTING OF CORPORATION STADIUM AT THRISSUR

SPECIFICATION AND SCHEDULE OF QUANTITIES

PART A : ELECTRICAL WORKS

Item. No.	Description of Items	Unit	Qty	Rate(in figures)	Rate(in words)	Amount (Rs)
1.0	PART A					
1.1	DG SET					
	Supply, installation, testing and commissioning of 1 No. 125 kVA, 415V, 3 phase, 1500 R.P.M, 0.8 PF(Continuous duty), water cooled, floor mounted Diesel Generator set with acoustic enclosure (outdoor duty) and all accessories including standard control panel with suitable MCCB, CTs and transducers for all metering and protection, Antivibration mountings, exhaust silencer and exhaust pipe along with Acoustic Enclosure(sound pressure level as per ISO standards), electric starter, batteries & battery charger, fuel tank with level indicator, radiator, necessary control wiring with control cables, first fill of lubricating oil, and Diesel for testing and commissioning, earthing as per standards and all accessories as required complete with necessary civil work such as grouting, chipping, finishing etc. as required complete without foundation. The work should be as per Electrical Inspectorate/ Pollution control board standards.	Job	1.00	879775.00	Rupees Eight Lakh(s) Seventy Nine Thousand Seven Hundred Seventy Five Only	879775.00
	SUB TOTAL PART - A					879775.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
	PART B					
2.0	LT PANEL BOARDS					
2.1	DG PANEL					
	Supply, installation, testing and commissioning of totally enclosed free standing floor mounting dust and vermin proof indoor cubicle type Main Switch Board (MSB) suitable for 415 V, 3 phase, 50 HZ supply, fabricated of 14 SWG CRCA sheet steel Powder coated complete with busbars having 200A rating, indicating lamps (LED type) with 2A control MCBs, CT's, connections & interconnections with suitable size of copper leads/solid aluminium strips/rod and having following incoming and outgoing MCCBs as per the drawing and specifications(Refer particular specification and Drawing).					
	Incomer					
	200A, 35 kA, FP MCCB with thermal release having adjustable over load and adjustable short circuit , auxiliary contacts - 1 no.					
	200A TPN busbar chamber with Aluminium busbar					
	Lowset earthfault relay- 1No.					
	RYB Indicating lamps LED type -3Nos.					
	Voltmeter with selector switch -1 No.					
	Ammeter with selector switch -1 No.					
	Cast resin CT's 200/5A,15VA CL:1 -4 Nos					
	Outgoing					
	160A, FP, 25kA, MCCB thermomagnetic release having adjustable over load and short circuit -1 no.					
	160A, FP, Switch disconnecter isolator-1 no.	no	1.00	127067.00	Rupees One Lakh(s) Twenty Seven Thousand Sixty Seven Only	127067.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
2.2	METERING PANEL					
	Supply, installation, testing and commissioning of Energy meter box of cubicle construction made from 1.6mm CRCA sheet suitable for accommodating one number of three phase Electronic Energy meter (supply of energy meter is under KSEB scope)and 3 nos.160A HRC fuse and neutral link ,Three no.s of 150/5A Class 0.5 CT,3 nos of 2A SP MCB ,inter connections , providing necessary supports made from the same gauge CRCA sheet to fix energy meters, etc .The cubicle shall be provided with hinged door construction and vision panel for the meter compartment.Suitable knock out for cable entry and exit shall be provided.The entire board shall be painted with 2 coats of synthetic enamel paint over a coat of zinc chromate primer etc as required including fixing it on wall, making good the damages colour washing etc. as required. CRCA sheet alone be used for the fabrication. Angles/ flats/ slotted angles etc shall not be used for the fabrication of main housing of meter board.	no	1.00	10028.00	Rupees Ten Thousand Twenty Eight Only	10028.00
2.3	MSB					
	Supply, installation, testing and commissioning of totally enclosed free standing floor mounting dust and vermin proof indoor cubicle type Main Switch Board (MSB) suitable for 415 V, 3 phase, 50 HZ supply, fabricated of 14 SWG CRCA sheet steel Powder coated complete with busbars having 160A rating, indicating lamps (LED type) with 2A control MCBs, CT's, connections & interconnections with suitable size of copper leads/solid aluminium strips/rod and having following incoming and outgoing MCCBs as per the drawing and specifications(Refer particular specification and Drawing).					
	Incomer					
	160A, FP, 35kA, MCCB thermomagnetic release having adjustable over load and short circuit -1 no.					
	160A TPN busbar chamber with Aluminium busbar					
	Provision for mounting Lowset earthfault relay- 1No.					
	RYB Indicating lamps LED type -3Nos.					
	Digital voltmeter -1 No.					

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
	Digital ammeter -1 No.					
	Cast resin CT's 150/5A,15VA CL:1 -4 Nos					
	AMF relay-1 No.					
	Outgoing					
	63A, FP, 35kA, MCCB thermomagnetic release having adjustable over load and short circuit -7 nos	no	1.00	162130.00	Rupees One Lakh(s) Sixty Two Thousand One Hundred Thirty Only	162130.00
2.4	CAPACITOR PANEL					
	Supply, Installation, testing and commissioning of totally enclosed, free standing, floor mounting, dust and vermin proof, cubicle type capacitor panel board of total 25 KVAR capacity to be fabricated out of 14 guage CRCA sheet steel Powder coated with provision for capacitor mounted inside the panel with adequate number of louvers and powder coated with approved shade and having following specific components(refer particular specification)					
	Incomer					
	63A, 25 kA, FP MCCB with thermal release having adjustable over load -1 no.					
	63A TPN busbar chamber with Aluminium busbars					
	RYB Indicating lamps LED type - 3 Nos.					
	Digital Ammeter-1 no.					
	ON-OFF indication lamps (LED type)- 1 Set					
	Microprocessor based intelligent,8 step IPFC relay with PF display - 1 No.					
	Out goings					
	25A, 16 kA, 3P, MCCB with adjustable over load 0.8In to 1 In - 6 Nos.					
	5 kVAr capacitor duty contactor(AC6B) with illuminated ON- OFF push buttons (LED type)- 5 Nos					
	5 kVAr,480 V,50 Hz heavy duty dry type capacitor(MPP-H) WITH 7% series reactor -5 Nos	no	1.00	201427.00	Thousand Four Hundred Twenty Seven Only	201427.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
2.5	Supply and installation of totally enclosed dust and vermin proof outdoor type IP65 polycarbonate emergency ON-OFF Push button station mounted on suitable MS angle for 230V, 1phase, 50Hz supply with accessories as required. (Hensel PBS 0201 or equivalent). Necessary foundation for MS angle shall also be considered if mounted directly in ground.	no	4.00	2278.00	Rupees Two Thousand Two Hundred Seventy Eight Only	9112.00
2.6	Supply and installation of 160 A FP change over switch in a sheet steel enclosure suitable for 415 V, 50HZ power supply with all the necessary accessories as required.	no	1.00	11584.00	Rupees Eleven Thousand Five Hundred Eighty Four Only	11584.00
SUB TOTAL PART - B						521348.00
PART C						
3.0	WIRING AND ACCESSORIES					
3.1	Supply & wiring for following points in surface/recessed mounted rigid medium gauge 20mm PVC conduit with all accessories, using 3 runs of 1.5 sqmm FRLS PVCinsulated stranded copper conductor single core wire for phase, neutral & earth, with modular 6A one way switch, modular front plate, suitable GI box, ceiling rose etc asrequired. The total distance from the switch box to the point will not exceed 5mtr, incase if length increases above 5 metres, the wiring shall be measured under item 3.4					
	Light point/ exhaust fan point/call bell point	no	144.00	1170.00	Hundred Seventy Only	168480.00
3.2	Copper plug point wiring - Wiring for power plug with 2x4 sq. mm., PVC insulated, copper conductor, stranded cable (FRLS) along with 1x2.5 sq. mm., PVC insulated, copper conductor, stranded cable for loop earthing in surface/recessed PVC conduit etc.as required complete .	m	500.00	272.00	Rupees Two Hundred Seventy Two Only	136000.00
3.3	Copper circuit wiring - Wiring for circuit with 2x2.5 sq. mm., PVC insulated, copper conductor, stranded cable along with 1x1.5 sq. mm., PVC insulated, copper conductor, stranded cable for loop earthing in surface/recessed pvc conduit etc.as required complete	m	2379.00	222.00	Rupees Two Hundred Twenty Two Only	528138.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
3.4	Copper circuit wiring - Wiring for circuit wiring with 2x1.5 sq. mm., PVC insulated, copper conductor, stranded cable (FRLS) along with 1x1.5 sq. mm., PVC insulated, copper conductor, stranded cable for loop earthing in surface/recessed PVC conduit etc. as required complete	m	300.00	202.00	Rupees Two Hundred Two Only	60600.00
3.5	Group controlled light point with 2.5 sq. mm wire - Wiring for Group controlled light point (from one point to another point) with 2.5 sq. mm PVC insulated, (FRLS) copper conductor cable along with 1x1.5 sq. mm., PVC insulated, copper conductor, stranded cable for loop earthing in surface / recessed PVC conduit. Note:- This item does not include the cost of MCB or 16Amp/ 6Amp one way switches. The total distance from one point to another point will not exceed 5 meters. In case if the total length increases 5 meters, the additional length shall be measured under item 3.3 The distance from DB to 1st point will be measured under item circuit wiring.	no	2.00	1066.00	Rupees One Thousand Sixty Six Only	2132.00
3.6	Group controlled light point with 1.5 sq. mm wire - Wiring for Group controlled light point (from one point to another point) with 1.5 sq. mm PVC insulated, (FRLS), copper conductor cable along with 1x1.5 sq. mm., PVC insulated, copper conductor, stranded cable for loop earthing in surface / recessed PVC conduit. Note:- This item does not include the cost of MCB or 16Amp/ 6Amp one way switches. The total distance from one point to another point will not exceed 5meters. In case if the total length increases 5meters, the additional length shall be measured under item 3.4The distance from DB to 1st point will be measured under item circuit wiring.	no	5.00	1047.00	Rupees One Thousand Forty Seven Only	5235.00
3.7	Supply and fixing suitable size GI box with modular front plate and cover on surface or in recess, including providing and fixing 2/3 pin combined 6A modular socket outlet and 6 A modular switch with connection etc as required.	no	66.00	464.00	Rupees Four Hundred Sixty Four Only	30624.00
3.8	Supply & fixing suitable size GI box with modular front plate and cover on surface or in recess, including providing & fixing of 16A modular switch with connection etc as required.	no	6.00	367.00	Rupees Three Hundred Sixty Seven Only	2202.00

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
3.9	Supply & fixing suitable size GI box with modular front plate and cover on surface or in recess, including providing and fixing of 3pin 16A modular socket outlet with connection etc as required.	no	6.00	440.00	Rupees Four Hundred Forty Only	2640.00
3.10	Supply and fixing Telephone socket outlet (RJ11) modular type with shutter in suitable size GI box with modular plate & cover in front on surface or in recess with all connection & necessary accessories as required.	no	11.00	338.00	Rupees Three Hundred Thirty Eight Only	3718.00
3.11	Supply and fixing of TV point (one module) with suitable metal box, front plate and all other required accessories.	no	2.00	338.00	Rupees Three Hundred Thirty Eight Only	676.00
3.12	along with all accessories in surface/recess including cutting the wall and making good the same in case of recess mounting as required.					
3.12.1	20 mm	m	35.00	114.00	Rupees One Hundred Fourteen Only	3990.00
3.12.2	25 mm	m	35.00	124.00	Rupees One Hundred Twenty Four Only	4340.00
SUB TOTAL (PART C)						948775.00
PART D						
4.0	MCBs AND MCB DISTRIBUTION BOARDS					
4.1	Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper/brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall, making good the damages, colour washing etc. as required.					
4.1.1	8 way (8+24) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/TP MCB as outgoing (IP 42/43) Note: There should be facility to terminate incoming cables of size upto 35 sq.mm AYFY and outgoing cables of size upto 4x16 sq.mm AYFY	no	2.00	6139.00	Rupees Six Thousand One Hundred Thirty Nine Only	12278.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
4.1.2	4 way (8+12) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/TP MCB as outgoing (IP 42/43) Note: There should be facility to terminate incoming cables of size upto 35 sq.mm AYFY and outgoing cables of size upto 4x16 sq.mm AYFY	no	1.00	4855.00	Rupees Four Thousand Eight Hundred Fifty Five Only	4855.00
4.1.3	8way (8+24) -three phase double cover horizontal (IP 42/43)	no	2.00	3455.00	Hundred Fifty Five Only	6910.00
4.1.4	4 way (8+12) -three phase double cover horizontal (IP 42/43)	no	2.00	2295.00	Hundred Ninety Five Only	4590.00
4.1.5	8 way -single phase double cover (IP 42/43)	no	2.00	1308.00	Rupees One Thousand Three Hundred Eight Only	2616.00
4.1.6	6 way -single phase double cover (IP 42/43)	no	6.00	1159.00	Rupees One Thousand One Hundred Fifty Nine Only	6954.00
4.1.7	4 way -single phase double cover (IP 42/43)	no	1.00	1032.00	Rupees One Thousand Thirty Two Only	1032.00
4.2	DP enclosure for independent mounting of MCB	no	1.00	310.00	Rupees Three Hundred Ten Only	310.00
4.3	Supply and fixing of following rating residual current circuit breaker having earth leakage protection (RCCB+MCB) as per specification as required					
4.3.1	4 pole 40 amps. (415 Volts), 100mA sensitivity.	no	1.00	3990.00	Rupees Three Thousand Nine Hundred Ninety Only	3990.00
4.3.2	4 pole 32 amps. (415 Volts), 30mA sensitivity.	no	4.00	3781.00	Rupees Three Thousand Seven Hundred Eighty One Only	15124.00
4.3.3	2 pole 25 amps. (240 Volts), 100mA sensitivity	no	1.00	2493.00	Rupees Two Thousand Four Hundred Ninety Three Only	2493.00
4.3.4	2 pole 16amps. (240 Volts), 30mA sensitivity	no	8.00	2463.00	Rupees Two Thousand Four Hundred Sixty Three Only	19704.00
4.4	Supply and fixing of following rating, 10 KA, Miniature circuit breakers of the following serie in the existing enclosure as required.					
4.4.1	6A to 32A TP MCB, B/C-CURVE MCB	no	10.00	846.00	Rupees Eight Hundred Forty Six Only	8460.00
4.4.2	6A to 32A SP MCB, B/C-CURVE MCB	no	95.00	213.00	Rupees Two Hundred Thirteen Only	20235.00
4.5	Supply and fixing of following rating, 10 KA, Miniature circuit breakers of the following series etc. as required.					

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
4.5.1	16A DP MCB, C-CURVE MCB with enclosure	no	5.00	794.00	Rupees Seven Hundred Ninety Four Only	3970.00
4.5.2	25A FP MCB, C-CURVE MCB with enclosure	no	6.00	1466.00	Rupees One Thousand Four Hundred Sixty Six Only	8796.00
4.5.3	40A TP MCB, C-CURVE MCB with enclosure	no	4.00	1370.00	Rupees One Thousand Three Hundred Seventy Only	5480.00
4.5.4	32A four pole mini break isolator with enclosure	no	2.00	674.00	Rupees Six Hundred Seventy Four Only	1348.00
4.5.5	63A four pole mini break isolator with enclosure	no	2.00	1062.00	Rupees One Thousand Sixty Two Only	2124.00
4.5	Supply and fixing of SP MCB blanking plate	no	4.00	25.00	Rupees Twenty Five Only	100.00
4.6	Supply and fixing cable end boxes for the following types of DB with necessary bolts and nuts etc. as required .					
4.6.1	Suitable for all types of IP 43 vertical DB (Group B)	no	3.00	916.00	Rupees Nine Hundred Sixteen Only	2748.00
4.6.2	Suitable for IP 43, 8way, TPN DB (Group B)	no	2.00	2014.00	Rupees Two Thousand Fourteen Only	4028.00
4.6.3	Suitable for IP 43, 4way, TPN DB (Group B)	no	2.00	1013.00	Rupees One Thousand Thirteen Only	2026.00
4.6.4	Suitable for IP 43, 8way, SPN DB (Group B)	no	2.00	718.00	Rupees Seven Hundred Eighteen Only	1436.00
4.6.5	Suitable for IP 43, 6 way/4WAY, SPN DB (Group B)	no	7.00	645.00	Rupees Six Hundred Forty Five Only	4515.00
4.7	Supply and fixing 20 amps. 240 volts SP industrial type socket outlet (IPP) with 2 poles and earth, metal enclosed plug top including supply and fixing of one number 20 amps (10kA) SP MCB (C-Curve) in sheet steel enclosure on surface or in recess with chained metal cover for the socket outlet and complete with connections testing and commissioning etc. as required.	no	4.00	1252.00	Rupees One Thousand Two Hundred Fifty Two Only	5008.00
SUB TOTAL (PART D)						151130.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
	PART E					
5.0	LIGHT FIXTURES AND FANS					
5.1	Supply of 1x28W surface mounted decorative fluorescent lamp fixture with T5 electronic batten, including 28W T5 lamp,prewired complete with all necessary accessories as required (Sample shall be approved by the engineer in charge)	no	69.00	630.00	Rupees Six Hundred Thirty Only	43470.00
5.2	Supply of 1x14W surface mounted decorative fluorescent lamp fixture with T5 electronic batten, including 14W T5 lamp,prewired complete with all necessary accessories as required (Sample shall be approved by the engineer in charge)	no	24.00	540.00	Rupees Five Hundred Forty Only	12960.00
5.3	Supply of 2x18 W, recess mounted low depth downlighter, including supply of 2 no. 18 W compact fluorescent lamps, 6W/5.5W loss copper ballast, starter, capacitor prewired complete with all necessary accessories as required (Make Wipro WCP 27218 SGW or equivalent approved make)	no	12.00	2210.00	Rupees Two Thousand Two Hundred Ten Only	26520.00
5.4	Supply of 2X28W,decorative Recess mounted light fixture with 3 D lamellae and OLC optics suitable for high efficiency 2 no.s of 28 W T5 lamps , prewired complete with all necessary accessories as required complete (Sample shall be approved by the engineer in charge)	no	22.00	4670.00	Rupees Four Thousand Six Hundred Seventy Only	102740.00
5.5	Supply of 2X36, Surface/Recess mounted mirror optic luminaire with matt finish ribbed aluminium louvres, suitable for FTL (T8) lamps, prewired complete with all necessary accessories as required complete.(Sample shall be approved by the engineer in charge)	no	14.00	3630.00	Rupees Three Thousand Six Hundred Thirty Only	50820.00
5.6	Supply of 1x150W(External),IP65 ,integral floodlight with asymmetric beam reflector in pressure diecast aluminium housing with adjustable glass, copper ballast, with all necessary controlgear, 1no. 150W MH lamp, prewired mounting cradle, aluminium reflector, toughened complete with all necessary accessories as required .(Sample shall be approved by the engineer in charge)	no	5.00	6770.00	Rupees Six Thousand Seven Hundred Seventy Only	33850.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
5.7	Supply, of the following sizes of exhaust fans in the existing opening, fixing necessary bolt and nuts, making good the damages etc. as required including giving connections with required length of 24/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS (Sample shall be approved by the engineer in charge)					
	250mm, single phase, light duty exhaust fan in plastic body with self opening louvers	no	6.00	1338.00	Rupees One Thousand Three Hundred Thirty Eight Only	8028.00
5.8	Supply of ceiling fan , with double ball bearing, Aluminium pressure die cast body with Aluminium blades, canopies, hanging shackle, 30 cm down rod and without speed regulator suitable for 230 V/240 V 50 HZ, AC supply confirms to IS 374/1979 as required complete. (Sample shall be approved by the engineer in charge)					
	1200mm sweep	no	12.00	1734.00	Rupees One Thousand Seven Hundred Thirty Four Only	20808.00
5.9	Supply of wall mounting fan of the following sizes using mounting brackets supplied along with the fan and giving connection with existing wire.					
	400mm sweep	no	6.00	2022.00	Rupees Two Thousand Twenty Two Only	12132.00
5.10	Installation, testing and commissioning of ceiling fan wiring the down rod of standard length (upto 30cm) with 1.5 sq.mm PVC insulated copper conductor single core cable including earthing the regulator etc. as required.					
		no	12.00	136.00	Rupees One Hundred Thirty Six Only	1632.00
5.11	Supply and providing every additional length of down rod of suitable size heavy guage GI/WI pipe with 16/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming in relevant ISS or with original wiring extended including painting as required. (for extending the length of down rod for ceiling fan)					
		no	18.00	17.00	Rupees Seventeen Only	306.00

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
5.12	Installation, testing and commissioning of exhaust fan upto 450mm sweep in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connections, testing & commissioning etc as required.	no	6.00	675.00	Rupees Six Hundred Seventy Five Only	4050.00
5.13	Installation, testing & commissioning of wall mounted fan upto 400mm sweep in the wall / column making good the damage, connections, testing & commissioning etc as required.	no	6.00	183.00	Rupees One Hundred Eighty Three Only	1098.00
5.14	Installation, testing and commissioning of prewired fluorescent fitting of all types complete with all accessories and fluorescent lamps of all types directly on wall and giving connections with 16/0.20 mm 3 core PVC insulated and sheathed round copper conductor flex wire or extending the original wiring and giving connections as required.	no	93.00	127.00	Rupees One Hundred Twenty Seven Only	11811.00
5.15	Installation, testing and commissioning of prewired, fluorescent / CFL light fittings of all types, with chain mounted complete with all accessories and tubes etc recess mounted to false ceiling, including connection with 1.5sqmm PVC insulated copper conductor single / three core cable etc as required.	no	36.00	176.00	Rupees One Hundred Seventy Six Only	6336.00
5.16	Supply and fixing of 2 module type, 5 speed electronic fan regulator 120watts rating with non metallic front plate including providing and fixing suitable size metal box in surface/ recess with all necessary accessories as required.	no	12.00	532.00	Rupees Five Hundred Thirty Two Only	6384.00
5.17	Numbering of ceiling fan / exhaust fan/ fluorescent fitting as required.	no	152.00	29.00	Rupees Twenty Nine Only	4408.00
	SUB TOTAL (PARTE)					347353.00
	PART F					
6.0	CABLES AND CABLING					
6.1	LT CABLING					
	Supply of following size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium /copper conductor cable conforming to IS 7098 (Part 1) amended upto date.					

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
6.1.1	3.5C 150 Sq.mm Al	m	50.00	795.00	Rupees Seven Hundred Ninety Five Only	39750.00
6.1.2	3.5C 95 Sq.mm Al	m	85.00	544.00	Rupees Five Hundred Forty Four Only	46240.00
6.1.3	3.5C35 Sq.mm Al	m	120.00	255.00	Rupees Two Hundred Fifty Five Only	30600.00
6.1.4	4C 25 Sq.mm Al	m	150.00	229.00	Rupees Two Hundred Twenty Nine Only	34350.00
6.1.5	4C 10 Sq.mm Al	m	140.00	141.00	Rupees One Hundred Forty One Only	19740.00
6.1.6	2C10 Sq.mm Al	m	120.00	115.00	Rupees One Hundred Fifteen Only	13800.00
6.1.7	2C 6 Sq.mm Al	m	190.00	107.00	Rupees One Hundred Seven Only	20330.00
6.1.8	3C 4 Sq.mm Al	m	200.00	95.00	Rupees Ninety Five Only	19000.00
6.1.9	3C 2.5 Sq.mm Al	m	400.00	130.00	Rupees One Hundred Thirty Only	52000.00
6.2	Supplying and making end termination with brass compression gland and aluminium/Copper lugs for following size of XLPE insulated PVC sheathed aluminium/copper conductor cable of 1.1 kV grade as required.					
6.2.1	3.5C 150 Sq.mm Al	m	2.00	568.00	Rupees Five Hundred Sixty Eight Only	1136.00
6.2.2	3.5C 95Sq.mm Al	no	4.00	502.00	Rupees Five Hundred Two Only	2008.00
6.2.3	3.5C 35 Sq.mm Al	no	6.00	407.00	Rupees Four Hundred Seven Only	2442.00
6.2.4	4C 25 Sq.mm Al	no	6.00	368.00	Rupees Three Hundred Sixty Eight Only	2208.00
6.2.5	4C 10 Sq.mm Al	no	6.00	312.00	Rupees Three Hundred Twelve Only	1872.00
6.2.6	2C 10 Sq.mm Al	no	10.00	306.00	Rupees Three Hundred Six Only	3060.00
6.2.7	2C 6 Sq.mm Al	no	10.00	302.00	Rupees Three Hundred Two Only	3020.00
6.2.8	3C 4 Sq.mm Al	no	8.00	290.00	Rupees Two Hundred Ninety Only	2320.00
6.2.9	3C 2.5 Sq.mm Al	no	18.00	282.00	Rupees Two Hundred Eighty Two Only	5076.00

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
6.3	Laying & fixing of one no. XLPE insulated & PVC sheathed power or control cable of 1.1kV grade of following size in recess/ surface/ cable tray/ wall with saddles, clamps and all other accessories as required					
6.3.1	Cable size not exceeding 25Sq mm	m	355.00	95.00	Rupees Ninety Five Only	33725.00
6.3.2	Above 25 Sq.mm upto 120 Sq.mm	m	60.00	145.00	Rupees One Hundred Forty Five Only	8700.00
6.4	Laying of one number PVC insulated and PVC sheathed armoured power cable of 1.1kV grade for the following sizes in ground including excavation of trench of size 35x75cm, sand cushioning up to a height of 25cm (8cm+17cm), providing protective covering with country burnt bricks laid breadth wise, refilling the trench etc. as required (in ordinary soil).					
6.4.1	Cable size not exceeding 25Sq mm	m	450.00	234.00	Rupees Two Hundred Thirty Four Only	105300.00
6.4.2	Above 25 Sq.mm upto 120 Sq.mm	m	80.00	251.00	Rupees Two Hundred Fifty One Only	20080.00
6.4.3	Above 120 Sq.mm upto 400 Sq.mm	m	15.00	269.00	Rupees Two Hundred Sixty Nine Only	4035.00
6.5	Laying of one number additional PVC insulated and PVC sheathed armoured power cable of 1.1KV grade of the following sizes in ground in the same trench in one tier horizontal formation including widening the trench by 20 cm, sand cushioning up to the height of 25 cm, providing protective covering with country burnt bricks laid breadth wise, refilling the trench etc. as required (in ordinary soil)					
6.5.1	Upto 25 Sq.mm	m	355.00	149.00	Rupees One Hundred Forty Nine Only	52895.00
6.5.2	Above 25 Sq.mm upto 120 Sq.mm	m	10.00	157.00	Rupees One Hundred Fifty Seven Only	1570.00
6.5.3	Above 120 Sq.mm upto 400 Sq.mm	m	35.00	166.00	Rupees One Hundred Sixty Six Only	5810.00
6.6	Laying of one number PVC insulated and PVC sheathed armoured power cable of 1.1kV grade for the following sizes in the existing RCC/HUME/STONEWARE/GI/DWC pipe as required					
6.6.1	Upto 25 sq.mm	m	25.00	45.00	Rupees Forty Five Only	1125.00

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
6.6.2	Above 25 Sq.mm upto 120 Sq.mm	m	10.00	62.00	Rupees Sixty Two Only	620.00
6.7	Laying of one number PVC insulated and PVC sheathed armoured power cable of 1.1KV grade of the following sizes in the existing masonry open duct as required.					
6.7.1	Cable size not exceeding 25Sq mm	m	15.00	36.00	Rupees Thirty Six Only	540.00
6.7.2	Above 25 Sq.mm upto 400 Sq.mm	m	5.00	49.00	Rupees Forty Nine Only	245.00
6.8	Supply, fabricating and installing MS items such as Tees/ angles/ channels etc. on floor/ ceiling/ wall including necessary civil work such as grouting, finishing etc. and painting with two coats of primer and two coats of synthetic enamel paint as required	kg	500.00	96.00	Rupees Ninety Six Only	48000
6.9	Supplying, threading, laying and jointing of the following sizes of 'B' class GI pipe with all required accessories in ground in the existing trench as protective covering to earth leads.					
6.9.1	40 mm	m	15.00	259.00	Rupees Two Hundred Fifty Nine Only	3885.00
6.9.2	50 mm	m	10.00	304.00	Rupees Three Hundred Four Only	3040.00
SUB TOTAL PART -F						588522.00
PART G						
7.0	EARTHING AND SAFETY EQUIPMENTS					
7.1	Supply & providing ISI plate earthing as per IS 3043 with 1200x1200x12.5mm GI / CI earth plate with 20mm dia B class GI pipe for watering, 50x6mm GI strip welded to the plate, GI funnel with weld mesh, fixing GI strip of size 50x6mm with min. length of 20cm clamped with 50x5mm GI flat using 12x10mm GI bolt & nut at top of the GI pipe as test joint, filling around the GI pipe at a radius of 15cm with a homogeneous mixture of charcoal, & river sand upto a height of 2.5 meter from the bottom, filling the rest of the portion with excavated soil including watering & ramming providing brick work (20cm) masonry at top in 1:6 cement mortar, plastering the inside & top of the manhole with 12mm thick 1:6 cement mortar and providing gully trap with 300x300x6mm CI covering at the top.	no	3.00	13347.00	Rupees Thirteen Thousand Three Hundred Forty Seven Only	40041.00

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
7.2	Supply and providing ISI pipe earthing as per IS 3043 with 2.5 meter long 40mm dia B class GI pipe with 12mm dia holes, providing GI funnel with weld mesh, fixing GI strip of size 50x6mm with min. length of 20cm clamped with 50x5mm GI flat using 12x10mm GI bolt & nut at top of the GI pipe as test joint, filling around the GI pipe at a radius of 15cm with a homogeneous of charcoal, & sieved earth upto a height of 2.0 meter from the bottom, filling the rest of the portion with excavated soil including watering and ramming providing brick work (20cm) masonry at top in 1:6 cm cement mortar, plastering the inside and top of the manhole with 12mm thick 1:6 cement mortar and providing 300x300x6mm CI covering at the top.	set	7.00	5635.00	Rupees Five Thousand Six Hundred Thirty Five Only	39445.00
7.3	Supplying and laying following GI or copper strip / wire at 0.6m below ground level including excavation and refilling or on surface with mounting saddles for conductor earth electrode including welding etc as required.					
7.3.1	25x3 mm copper strip tinned at the points of contacts	m	200.00	476.00	Rupees Four Hundred Seventy Six Only	95200.00
7.3.2	3.15mm copper conductor (10 SWG)	m	415.00	83.00	Rupees Eighty Three Only	34445.00
7.4	Supply and fixing anodised aluminum glass framed shock treatment chart.	job	1.00	422.00	Rupees Four Hundred Twenty Two Only	422.00
7.5	Supply and providing 6mm thick & 1m wide electrical grade chequered type rubber mat to withstand 3.3KV dielectric strength conforming to IS 5429/1969.	job	3.00	1158.00	Rupees One Thousand One Hundred Fifty Eight Only	3474.00
7.6	Supply and fixing of First aid box	no	1.00	589.00	Rupees Five Hundred Eighty Nine Only	589.00
7.7	Supplying of Rubber hand gloves suitable for 1.1 KV.	pair	1.00	360.00	Rupees Three Hundred Sixty Only	360.00

Item No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
7.8	Supply and providing 9 Litre capacity GI Fire Bucket painted in post office red with primer coat of red oxide and written with white paint 'FIRE' mounted on MS angle frame work/wall bracket filled with fine stand painting the bracket/floor stand including making good the damages, colour washing etc. as required.	no	1.00	1336.00	Rupees One Thousand Three Hundred Thirty Six Only	1336.00
SUB TOTAL PART G						215312.00
PART H						
8.0	LIGHTNING PROTECTION					
8.1	Providing and fixing GI tape 20mm x 3mm thick on parapet or surface of wall for lightning conductor as required. (for Horizontal run)	m	150.00	86.00	Rupees Eighty Six Only	12900.00
8.2	Providing and fixing GI tape 20mm x 3mm thick on parapet or surface of wall for lightning conductor as required. (for Vertical Run)	m	50.00	122.00	Rupees One Hundred Twenty Two Only	6100.00
8.3	Providing and fixing testing joint made of 20mm x 3mm thick GI strip 125mm long with 4No. G.I. bolts, nuts, check nuts, spring washer etc. complete as required.	set	3.00	54.00	Rupees Fifty Four Only	162.00
8.4	Providing and laying GI tape 32mm x 6mm thick from earth electrode directly in ground as required.	m	110.00	164.00	Rupees One Hundred Sixty Four Only	18040.00
SUB TOTAL PART -H						37202.00
PART I						
9.0	UPS AND INVERTER					
9.1	6 KVA UPS					
	Supply, installation, testing and commissioning of 3 phase input and 1 phase output, 6 kVA THDi <8%, IGBT based UPS system with 10 numbers of 12 V,65 AH SMF battery and battery stand prewired complete with all necessary accessories, interconnection cables as required.	no	1.00	114399.00	Rupees One Lakh(s) Fourteen Thousand Three Hundred Ninety Nine Only	114399.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
9.2	2.5 KVA inverter					
	Supply, installation, testing and commissioning of single phase input phase output, 2.5 kVA sine wave inverter with 100 AH tubular battery prewired complete with all necessary accessories, interconnection cables as required.	no	1.00	228091.00	Rupees Two Lakh(s) Twenty Eight Thousand Ninety One Only	228091.00
	SUB TOTAL PART -I					342490.00
	PARTJ					
	GRAND TOTAL				Rupees Forty Lakh(s) Thirty One Thousand Nine Hundred Seven Only	4031907.00

PROJECT:ELECTRIFICATION, AIR CONDITIONING AND FIRE FIGHTING WORKS FOR CORPORATION STADIUM , THRISSUR
SCHEDULE OF QUANTITIES
PART B : AIR CONDITIONING WORKS

Item. No.	Description of Items	Unit	Qty	Ratein figures)	Rate(in words)	Amount (Rs)
	SITC OF NEW SYSTEM EQUIPMENTS					
A	AIR COOLED HI-WALL SPLIT AIR CONDITIONERS					
1	Supply, Installation,Testing and Commissioning of 2.0 TR Split air conditioning unit complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll/rotary compressor, including fixing the outdoor unit as per manufacturers recommendation and fixing of room (high wall) unit on ceiling, providing copper piping interconnection with insulation between room & condenser as per site conditions, necessary electrical cabling , out door vibration isolators, drain piping with insulation,first charge refrigerant gas, MS condenser stand, cordless remote etc complete as required. suitable for single phase 230 V supply minimum 2star rated as per BEE and with suitable stabilizer ,inclusive of all taxes etc. complete as required as per ISHRAE standards.	no	4	43000.00	Rupees Forty Three Thousand Only	172000.00

Item. No.	Description of Items	Unit	Qty	Rate in figures)	Rate(in words)	Amount (Rs)
2	Supply, Installation, Testing and Commissioning of 1.5 TR Split air conditioning unit complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll/rotary compressor, including fixing the outdoor unit as per manufacturers recommendation and fixing of room (high wall) unit on ceiling, providing copper piping interconnection with insulation between room & condenser as per site conditions, necessary electrical cabling , out door vibration isolators, drain piping with insulation, first charge refrigerant gas, MS condenser stand, cordless remote etc complete as required. suitable for single phase 230 V supply minimum 2star rated as per BEE and with suitable stabilizer, inclusive of all taxes etc. complete as required as per ISHRAE standards.	no	4	53000.00	Rupees Fifty Three Thousand Only	212000.00
	GRAND TOTAL					384000.00

NATIONAL GAMES SECRETARIAT
PROJECT: ELECTRIFICATION, AIRCONDITIONING AND FIRE FIGHTING OF CORPORATION STADIUM AT THRISSUR
SPECIFICATION AND SCHEDULE OF QUANTITIES

Part C: Fire Detection & Alarm Systems

Item No.	Description of Items	Unit	Qty	Rate in figure	Rate (in words)	Amount (Rs)
2.0	AUTOMATIC ANALOGUE ADDRESSABLE FIRE DETECTION & ALARM SYSTEM					
2.1	Supply, Installation, Testing & Commissioning of intelligent Addressable Fire Alarm Panel with 1 loop (accessing at least 90 detectors) including battery backup. The panel shall be microprocessor based with its own micro controller, memory, communication module and fire device loop interface cards for intelligent initiating and indicating devices and should also be networkable in peer-to-peer basis with other Addressable Fire Alarm Panels. The Panel shall be able to give pin point location of all Fire/Fault conditions of addressable units via the address codes for each unit. The Panel shall also be able to automatically switch off all Control Switches when ever any Alarm is triggered. The panel shall have Keypad operation, L C D unit to indicate Fire / Fault Signal of individual unit, etc complete in all respects. 24 Volts sealed lead acid battery sufficient for 24 hrs back up with battery charger. Panel shall have dynamic data sharing with Building Management System Platform through common protocol bus. Panel or through Integator unit. Other requirements are given below : (a) Programming software for the system (b) Automatic system test activates (c) Detector sensitivity adjustments (d) Alarm verification (e) Alpha/numerical display	each	1	109033.68	Rupees One Lakh(s) Nine Thousand Thirty Three And Paise Sixty Eight Only	109033.68
2.2	Supply, installation, testing and commissioning of UL/LPCB Listed Analogue Addressable type Smoke Detector complete with all accessories like base. base box, etc. to be installed under/above false ceiling, roof and concealed space, etc. interconnecting to loop cable complete as required.	each	35	3815.00	Rupees Three Thousand Eight Hundred Fifteen Only	133525.00

Item No.	Description of Items	Unit	Qty	Rate in figure	Rate(in words)	Amount (Rs)
2.3	Supply, installation, testing and commissioning of UL/LPCB Listed Analogue Addressable type Heat Detector complete with all accessories like base. base box, etc. to be installed under/above false ceiling, roof and concealed space, etc. interconnecting to loop cable complete as required.	each	1	3657.00	Rupees Three Thousand Six Hundred Fifty Seven Only	3657.00
2.4	Supply, installation, testing and commissioning of addressable Loop Isolators to protect one area or a number of devices with complete set to be installed under/above false ceiling, roof, concealed space, wall, etc. interconnecting to loop cable complete	each	1	1663.00	Rupees One Thousand Six Hundred Sixty Three Only	1663.00
2.5	Supply, installation, testing and commissioning of UL/LPCB Listed Addressable type Manual Call Point (Resettable type) complete with Input Module, push button, enclosed in box with provision for cable or conduit coupling. The unit to be painted fire red outside, white inside.	each	3	5451.00	Rupees Five Thousand Four Hundred Fifty One Only	16353.00
2.6	Providing, installing, testing and commissioning of UL listed Hooter cum Strobe with Base plate	each	3	8641.00	Rupees Eight Thousand Six Hundred Forty One Only	25923.00
2.7	Supply and laying of following size insulated Armoured FRLS copper wire through surfaces/ recess / above false ceiling /concealed space/wall concealed, etc. for control cabling of Fire detection and alarm devices and interconnecting them .by 2 x 1.5 sq mm etc as required.	M	550	131.00	Rupees One Hundred Thirty One Only	72050.00
TOTAL OF FIRE DETECTION & ALARM SYSTEM						362204.68

**NATIONAL GAMES SECRETARIAT
PROJECT:ELECTRIFICATION AIRCONDITINING AND FIRE FIGHTING OF CORPORATION STADIUM AT THRISSUR
SPECIFCATION AND SCHEDULE OF QUANTITIES**

Part D: Fire Hydrant Systems

Sl. No.	Description	Unit	Qty.	Rate	Rate	Amount
				(fig.)	in words	(Rs.)
1.0	FIRE HYDRANT SYSTEM					
1.1	Supplying, Installation, Testing and Commissioning of electric driven main fire pump suitable for automatic operation and consisting of following: complete in all respect as required.					
a)	Horizontal type, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm. at highest and farthest outlet at specified flow of 2280 lpm at 55m. head conforming to IS 1520.					
b)	Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 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 with anti vibration pads (Lot).	set	1	372229.00	Rupees Three Lakh(s) Seventy Two Thousand Two Hundred Twenty Nine Only	372229.00
1.2	Supplying, Installation, Testing and Commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following: complete in all respect as required.					
a)	Horizontal type, centrifugal, pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm. at highest and farthest outlet at specified flow of 2280 lpm at 55 m. head conforming to IS 1520.					
b)	Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12 volts/24 Volts electric starting equipment, 2x12v 180AH Batteries and leads, Diesel Tank Fabricated from MS sheet of 4mm Thick (Minimum Capacity 500 Litres) with level indicator, Bypass line, MS Piping to diesel tank from engine, exhaust pipe extended upto 1 m. outside pump house duly insulated with 50 mm. thick glass wool with 1.0 mm. thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.					
c)	M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.					

Sl. No.	Description	Unit	Qty.	Rate (fig.)	Rate in words	Amount (Rs.)
d)	Suitable cement concrete foundation duly plastered with anti vibration pads (Lot).	set	1	741608.00	Rupees Seven Lakh(s) Forty One Thousand Six Hundred Eight Only	741608.00
1.3	Supplying, Installation, Testing and Commissioning of electric driven pressurisation pump (Jockey Pump) suitable for automatic operation and consisting of following: complete in all respect as required.					
a)	Horizontal type, centrifugal, pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 180 lpm at 55 m. head conforming to IS 1520.					
b)	Suitable HP Squirrel cage induction motor , TEFC, synchronous speed 2900 RPM, suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, electrical control panel with star delta starter ,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.					
e)	Suitable cement concrete foundation duly plastered with anti vibration pads (Lot).	set	1	84018.00	Rupees Eighty Four Thousand Eighteen Only	84018.00
1.4	a) Supplying, Installation, testing and commissioning of electric driven pump (terrace pump) sets suitable for automatic operation and consisting electrical control panel with Star-Delta starter and accessories of the following complete in all respect as required Pump rated for 450lpm,35m head C.I body coupled with suitable HP squirrel cage induction motor for operation on 415V, 3phase 50Hz, AC with IP 55 class of protection for enclosure, horizontal foot mounted type with class F insulation. M.S. fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered with anti vibration pads.					
		set	1	82317.00	Rupees Eighty Two Thousand Three Hundred Seventeen Only	82317.00
1.5	Supply, installation, testing and commissioning of industrial type pressure switch having 1/4" BSP(F) connection IP:32 enclosure protection, phosphor bronze bellows as sensing element, SDPT contact system, switch rating 6A Inductive/IOA resistive 380 V A	each	3	2320.00	Rupees Two Thousand Three Hundred Twenty Only	6960.00
1.6	Supplying and fixing air vessel made of 250mm dia, 8mm thick MS sheet, 1200mm. In height with air release valve on top and flanged connection to riser, drain arrangement with 25mm dia Gun metal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	each	1	21752.00	Rupees Twenty One Thousand Seven Hundred Fifty Two Only	21752.00
1.7	Supply, installation, testing and commissioning of pressure guage 0-200 PSI (0 - 14 Kg) range, 3/8" BSP bottom entry, 4" dial weather proof with stainless steel internals, siphon tube amd ball valve including fittings, etc. complete as required	each	3	2030.00	Rupees Two Thousand Thirty Only	6090.00

Sl. No.	Description	Unit	Qty.	Rate	Rate	Amount
				(fig.)	in words	(Rs.)
1.8	Supplying, fixing, testing and commissioning of butterfly valve PN 1.0, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, conforming to IS 13095, of following sizes as required.					
a)	150mm dia	each	4	3679.00	Rupees Three Thousand Six Hundred Seventy Nine Only	14716.00
	100mm dia	each	1	2652.00	Rupees Two Thousand Six Hundred Fifty Two Only	2652.00
b)	80 mm dia.	each	1	1995.00	Rupees One Thousand Nine Hundred Ninety Five Only	1995.00
c)	65mm dia	each	3	1744.00	Rupees One Thousand Seven Hundred Forty Four Only	5232.00
d	50 mm dia.	each	4	1589.00	Rupees One Thousand Five Hundred Eighty Nine Only	6356.00
1.9	Providing, Installation, testing and commissioning of dual plate non-return valve of following size confirming to IS : 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.					
a)	150 mm dia	each	2	10503.00	Rupees Ten Thousand Five Hundred Three Only	21006.00
b)	100 mm dia	each	1	5351.00	Rupees Five Thousand Three Hundred Fifty One Only	5351.00
c)	65 mm dia	each	3	2806.00	Rupees Two Thousand Eight Hundred Six Only	8418.00
1.1	Providing, Installation, testing and commissioning of Foot valve of following size confirming to IS specifications complete with gaskets, seal and accessories as required.					
a)	150 mm dia	each	2	8411.00	Rupees Eight Thousand Four Hundred Eleven Only	16822.00
b)	80 mm dia	each	1	3567.00	Rupees Three Thousand Five Hundred Sixty Seven Only	3567.00
1.11	SITC of priming tank of capacity 1500 lit. made out of HDPE material with outlet/inlet connection, water level indicator, over flow arrangement, float valve, etc. completed as required.	each	1	8997.00	Rupees Eight Thousand Nine Hundred Ninety Seven Only	8997.00
1.12	Providing and laying M.S. (Heavy C' Class) pipe IS:1239/ IS: 3589 marked including all accessories such as screwed/welded flanges, tees, reducers etc. conforming to IS standards complete including painting, welding, jointing and neoprene gaskets, nuts, bolts etc. as required.					

Sl. No.	Description	Unit	Qty.	Rate	Rate	Amount
				(fig.)	in words	(Rs.)
a)	M.S. (Heavy C' Class) pipe painted with one coat of primer & two coats of post office red enamel paint fixed in ceiling, walls, columns for all heights with hangers/supports and fasteners all as per drawing including chasing of walls/columns/ ceiling etc. and making good the same complete as required. (For internal hydrant system)					
i)	150 mm dia	M	63	1780.00	Rupees One Thousand Seven Hundred Eighty Only	112140.00
	100 mm dia.	M	8	1232.00	Rupees One Thousand Two Hundred Thirty Two Only	9856.00
iv)	80 mm dia	M	74	865.00	Rupees Eight Hundred Sixty Five Only	64010.00
	65 mm dia	M	23	741.00	Rupees Seven Hundred Forty One Only	17043.00
	50mm dia	M	25	580.00	Rupees Five Hundred Eighty Only	14500.00
	25 mm dia	M	5	307.00	Rupees Three Hundred Seven Only	1535.00
b)	MS. (Heavy C' Class) Pipes complete with painting, wrapping and coating of the pipes as per IS:10211 in all kinds of soil at a depth 1.5 m including excavation,supporting the pipe with PCC blocks of size as mentioned in technical specifications and refilling the trench all complete. (For external only)					
i)	150 mm dia	M	35	2155.00	Rupees Two Thousand One Hundred Fifty Five Only	75425.00
1.13	Supply,installation,testing and commissioning of gun metal fire hydrant valve ,single head oblique type with 63 mm instantaneous outlets with female socket for hose connection and inlet side with flange suitable for 80 mm pipe flange, valve conforming to IS:5290 complete with blank cap,Chain etc.	each	4	7831.00	Rupees Seven Thousand Eight Hundred Thirty One Only	31324.00
1.14	Supplying and fixing 63mm dia, 15mtr. Long RRL hose pipe with 63mm dia Male and Female Gun metal couplings duly binded with GI wire, rivets etc. conforming to IS 636 (type-A) as required.	each	8	5412.00	Rupees Five Thousand Four Hundred Twelve Only	43296.00
1.15	Supply and fixing 63mm dia Gun Metal branch pipe with 20mm (nominal internal diameter) size Gun Metal nozzle conforming to IS 903, suitable for instantaneous connection to interconnect hose pipe coupling as required.	each	4	2286.00	Rupees Two Thousand Two Hundred Eighty Six Only	9144.00
1.16	Supplying and fixing First-Aid-Hose Reel with MS construction spray painted in Post office Red, conforming to IS 884 with upto date ammendments, complete with the following as required.					
a)	30 m. long 20mm (nominal internal) dia water hose Thermoplastic (Textile reinforced) Type-2 as per IS : 12585					
b)	20mm (nominal internal) dia gun metal globe valve & nozzle.					
c)	Drum and brackets for fixing the equipments on wall.					
d)	Connections from riser with 40mmdia stop valve (gun metal) & G.I. Pipe.	each	4	8991.00	Rupees Eight Thousand Nine Hundred Ninety One Only	35964.00

Sl. No.	Description	Unit	Qty.	Rate	Rate	Amount
				(fig.)	in words	(Rs.)
1.17	Supply, installation, testing and commissioning of hose boxes wall/pedestal type of size 750 x 250 x 600 mm made out of 16 SWG MS sheet, with front side glass, locking arrangement and painted with approved colour completed as required and as per specifications. The hose box should have provisions to accommodate two RRL hoses of length 15 Mtr each and a branch pipe.	each	4	5260.00	Rupees Five Thousand Two Hundred Sixty Only	21040.00
1.18	Supplying and fixing 4 way fire brigade connection of cast iron body with 4 Nos. Gun metal male instantaneous inlet couplings complete with cap and chain as required for 150mm dia GI pipe connection, conforming to IS 903 as required	each	1	10382.00	Rupees Ten Thousand Three Hundred Eighty Two Only	10382.00
	Supply, installation, testing and commissioning of Ball valve conforming to IS:778 (ISI marked) with screwed ends of sizes:					
a	25 mm Dia.	each	1	970.00	Rupees Nine Hundred Seventy Only	970.00
b	40 mm Dia.	each	1	1869.00	Rupees One Thousand Eight Hundred Sixty Nine Only	1869.00
1.19	Supply, installation, testing and commissioning of Air release valve	each	1	1450.00	Rupees One Thousand Four Hundred Fifty Only	1450.00
	TOTAL OF FIRE HYDRANT					1860034.00
1.20	HAND APPLIANCES					
1.20.1	Supply and installation of ABC Dry Chemical powder type , each made of high pressure steel cylinder wall mounting type with hook plate and anchor fastening, ISI marked, complete with wheel type valve internal discharge tube 1 M long high pressure wire braided discharge hose having a discharge length of 8 m with discharge time of 10 sec fully charged with ABC powder, including all accessories complete as required.					
a)	Capacity 5 kg.	each	3	2699.00	Rupees Two Thousand Six Hundred Ninety Nine Only	8097.00
1.20.2	Supply and installation on wall with hook plate and anchor fastening of ISI marked 9 liters water type Fire Extinguisher with internal plastic lining and solid drawn body with 60 grams CO2 cartridge with gun metal plunger and 1.0 M long discharge hose and complete in all respects including initial fill with CO2 gas.					
a)	Capacity 9 litre	each	3	2630.00	Rupees Two Thousand Six Hundred Thirty Only	7890.00
1.20.3	Supply of carbon-dioxide extinguisher of ISI marked 4.5 Kg capacity made of high pressure seamless steel cylinder (CCE marked) complete with wheel type valve with one meter long braided high pressure discharge hose complete in all respects including init					
a)	Capacity 4.5Kg	each	2	7060.00	Rupees Seven Thousand Sixty Only	14120.00
	TOTAL OF HAND APPLIANCES					30107.00

Sl. No.	Description	Unit	Qty.	Rate	Rate	Amount
				(fig.)	in words	(Rs.)
1.21	Main Fire Pump Panel					
	Supply of cubical type floor mounted panel made out of 14SWG MS sheet complete with all contactors, auxiliary contacts, indication lamp, ammeter with ASS, voltmeter with VSS, fuses fully automatic star delta starter including connection as required: Panel shall be enclosed and with all necessary components for 1 no.s fire main pump, 1 no.s jockey pump, 1 battery charger for diesel pump complete in all respects including necessary power and control wiring as per the details given below and also with diesel engine pump control panel as per spec.					
	Main pump					
	125A TPN Isolator, 1Nos.					
	RYB Indication Lamp-1 Set					
	0-500V Digital volt meter with selector - 1 set					
	control MCB-3nos					
	100A Digital Ammeter with ASS - 1 set					
	100/5A CL 1 15VA CT-3NOS					
	50HP star Delta Starter with illuminated P.B-1nos.					
	Automanual Selector switch with control accessories for main pump-1 set					
	Automatic starting mechanism for DG set, the mechanism should have the facility for inter locking and remote tripping - 1 no.s					
	Jockey Pump					
	25 A TP MCB Isolator-1 nos.					
	RYB Indication Lamp-1 Set					
	0-500V Digital volt meter with selector - 1 set					
	control MCB-3nos					
	7.5 HP DOL starter with illuminated P.B-1nos.					
	Automanual Selector switch with control accessories for Jockey pump-1 set					
	Diesel Engine Pump					
	Automanual Selector switch with control accessories for Engine Controlled pump-1 set					
	Panel mount battery charger with required controlling accessories and displays -1 set					
	DC Control MCB's - as required					
	engine control mechanism should have the protection against the following faults. 1. HWT, 2. OSR, 3. LLOP etc					
	Make list					
	Switches. MCB, Contactors and relays - L&T or equivalent					
	Meters - L&T / C&S or equivalent					
	Control accessories and timers - L&T / OEN or equivalent					
	Diesel Engine Control					
	Diesel engine control consisting of:					
	Auto / manual selector switch, 3 attempt starting device, push button etc.					
	All required timers, relays, fuses and accessories for automatic operation of diesel engine.					
	Indication lamp for high water temperature, engine fail to start, engine On indication, high/low lube oil pressure.					
	Necessary control wiring for start / stop solinoid, line / oil pressure switch, temperature switch etc.					
	6 panel annunciation window for fault indication with hooter, accept & reset push button.					

Sl. No.	Description	Unit	Qty.	Rate (fig.)	Rate in words	Amount (Rs.)
	The system shall include all accessories to control the operation of main electric pump, diesel pump, jockey pump in sequence as per the specification.	no	1	145436.00	Rupees One Lakh(s) Forty Five Thousand Four Hundred Thirty Six Only	145436.00
	TOTAL					145436.00
1.22	Supply and fixing of following rating, 32A four pole mini break isolator in a suitable enclosure as required as required.					
		no	1.00	1188.00	Rupees One Thousand One Hundred Eighty Eight Only	1188.00
	Cabling and Earthing					
1.23	Supply of following size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium /copper conductor cable conforming to IS 7098 (Part 1) amended upto date.					
1.23.1	3.5C 50 Sq.mm Al	m	10	307.00	Rupees Three Hundred Seven Only	3070.00
1.23.2	3C 6 Sq.mm Al	m	10	111.00	Rupees One Hundred Eleven Only	1110.00
1.23.3	3C 4 Sq.mm Al	m	50	86.00	Rupees Eighty Six Only	4300.00
1.23.4	3C 2.5 sqmm Cu	m	60	130.00	Rupees One Hundred Thirty Only	7800.00

Sl. No.	Description	Unit	Qty.	Rate	Rate	Amount
				(fig.)	in words	(Rs.)
1.24	Supplying and making end termination with brass compression gland and aluminium/Copper lugs for following size of XLPE insulated PVC sheathed aluminium conductor cable of 1.1 kV grade as required.					
1.24.1	3.5C 50 Sq.mm Al	no	2	843.00	Rupees Eight Hundred Forty Three Only	1686.00
1.24.2	3C 6 Sq.mm Al	no	2	424.00	Rupees Four Hundred Twenty Four Only	848.00
1.24.3	3C 4 Sq.mm Al	no	2	393.00	Rupees Three Hundred Ninety Three Only	786.00
1.24.4	3C 2.5 sqmm Cu	no	6	119.00	Rupees One Hundred Nineteen Only	714.00
1.25	Laying and Fixing of one number XLPE/PVC insulated PVC sheathed aluminium/copper conductor armoured power cable of 1.1 KV grade of following sizes on surface/ PVC conduit /cable tray/ wall / build in trench etc as required.					
1.25.1	Upto 25 Sq.mm	m	70	95.00	Rupees Ninety Five Only	6650.00
1.25.2	Above 25 Sq.mm upto 120 Sq.mm	m	10	145.00	Rupees One Hundred Forty Five Only	1450.00
1.26	Providing and fixing 25mm X3mm copper strip on surface or in recess or in ground along the cables for connections etc. as required.	m	25	512.00	Rupees Five Hundred Twelve Only	12800.00
1.27	Providing and fixing 10 SWG copper wire on surface or in recess for loop earthing as required.	m	50	88.00	Rupees Eighty Eight Only	4400.00
1.28	Providing and fixing 6 SWG copper wire on surface or in recess for loop earthing as required.	m	25	140.00	Rupees One Hundred Forty Only	3500.00
	TOTAL					50302.00
	TOTAL					2085879.00

NATIONAL GAMES SECRETARIAT
PROJECT: ELECTRIFICATION, AIRCONDITIONING AND FIRE FIGHTING SYSTEM OF CORPORATON STADIUM AT THRISSUR
ABSTRACT

TOTAL OF ELECTRICAL WORKS	4031907
TOTAL OF AIRCONDITIONING WORKS	384000
TOTAL OF FIRE FIGHTING SYSTEM	2448084
SUB TOTAL	6863991
DEDUCT VALUE OF MARKET RATE ITEM	4452522
VALUE OF PWD SOR ITEM	2411469
ADD VALUE OF MARKET RATE ITEM	4452522
GRAND TOTAL	6863991
(RUPEES SIXTY EIGHT LAKH SIXTY THREE THOUSAND NINE HUNDRED AND NINTY ONE ONLY)	

I/We agree to carry out the work at par with * (1). at estimate rate * (2). at% above estimate rate (in figure & words) * (3). at% below the estimate (in figure & words) less cost of departmental materials/ market rate items.

* Note:- Strike out which ever is not applicable.

Date:-

Full name & signature of Tenderer