

NATIONAL GAMES SECRETARIATE

RENOVATION AND UPGRADATION WORKS AT UNIVERSITY STADIUM,TRIVANDRUM- ADDITIONAL WORKS CIVIL &ELECTRICAL

SPECIFICATION AND SCHEDULE OF QUANTITIES- PART I - CIVIL WORKS

Sl.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	(SH : - 1.0 - EARTHWORK)					
1.01	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	358.00	4.43	Rupees Four And Paise Forty Three Only	1586
1.02	Earth work in excavation by means (Hydraulic excavator)/manual means over areas (exceeding 30cm in depth.1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m; disposed earth to be levelled and neatly dressed, as directed by the Engineer- in-Charge					
	All kinds of soil.	cum	105.00	191.61	Rupees One Hundred Ninety One And Paise Sixty One Only	20119
1.03	Filling in plinth, under floors, in areas,sides with river sand including watering, ramming, consolidating and dressing etc cost and conveyance of all materials,labour charges,lead,lift etc complete at all levels as directed by the Engineer-in-Charge	cum	1.00	4142.44	Rupees Four Thousand One Hundred Forty Two And Paise Forty Four Only	4142
1.04	Filling available excavated earth(excluding rock) in trenches, under floors,plinth,sides of foundation,in areas etc. in layers not exceeding 20cm in depth,consoldating each deposited layer by ramming and watering,lead upto 50m and lift upto 1.5m including cost and conveyance of all materials,labour charges, etc complete at all levels as directed by the Engineer-in-Charge	cum	48.00	126.99	Rupees One Hundred Twenty Six And Paise Ninety Nine Only	6096
1.05	Bailing out water from well with 5HP Engine and pump set including conveyance to the site and erection, cost of fuel, lubricating oil and other stores etc. complete as directed by the Engineer- in-Charge.	hr	12.00	204.01	Rupees Two Hundred Four And Paise One Only	2448
1.06	Extra for additional lead upto 100m over initial lead of 50m for disposing surplus excavated earth as per the direction of Engineer-in-Charge.	cum	29.00	74.45	Rupees Seventy Four And Paise Forty Five Only	2159
	TOTAL OF SUB HEAD -1.0					36550

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	(SH: - 2.0 - CONCRETE WORK)					
2.01	Providing and laying cement concrete of specific grade properly mixed and consolidated with hand rammers, including cost and conveyance of all materials, labour, curing, lead lift , etc. complete for all work up to plinth levels as directed by Engineer- in-Charge.					
2.01.01	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	cum	13.00	5723.28	Rupees Five Thousand Seven Hundred Twenty Three And Paise Twenty Eight Only	74403
2.01.02	1:2:4 (1 Cement : 2coarse sand : 4 graded stone aggregate 20mm nominal size)	cum	18.00	7444.72	Rupees Seven Thousand Four Hundred Forty Four And Paise Seventy Two Only	134005
2.02	Extra for providing and mixing water proofing liquid in cement concrete work, masonry work, plastering etc in the proportion recommended by the manufacturers including cost and conveyance of all materials, labour, curing, lead lift , etc. complete as directed by Engineer-in-Charge at all levels.	ltr	32.00	75.50	Rupees Seventy Five And Paise Fifty Only	2416
	TOTAL OF SUB HEAD -2.0					210824
	(SH: - 3.0 - R.C.C. WORK)					
3.01	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of M-25 grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement including admixtures in recommended proportion (as per IS 9103) to accelerate,retard setting of concrete to improve workability without impairing strength and durability as per direction of Engineer-in-Charge .					
	All work upto plinth level.	cum	20.00	8748.86	Rupees Eight Thousand Seven Hundred Forty Eight And Paise Eighty Six Only	174977

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
3.02	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of M-25 grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering, finishing and reinforcement including admixtures in recommended proportion (as per IS 9103) to accelerate,retard setting of concrete to improve workability without impairing strength and durability as per direction of Engineer-in-Charge					
	All work upto floor V level.	cum	2.00	8748.86	Rupees Eight Thousand Seven Hundred Forty Eight And Paise Eighty Six Only	17498
3.03	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but excluding cost of reinforcement, with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	8.00	7649.63	Rupees Seven Thousand Six Hundred Forty Nine And Paise Sixty Three Only	61197
3.04	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding with 16 gauge GI binding wire etc complete including cost, conveyance, lead, lift of all materials for all types of RCC works as per drawing/specification and as directed by Engineer-in-Charge at all levels.					
	Thermo-Mechanically Treated bars	kg	2423.00	73.96	Rupees Seventy Three And Paise Ninety Six Only	179205
3.05	Centering and shuttering including strutting, propping etc. and removal of form for :					
3.05.01	Foundations, footings, bases of columns etc. for mass concrete.	sqm	2.00	252.80	Rupees Two Hundred Fifty Two And Paise Eighty Only	506
3.05.02	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	17.00	408.74	Rupees Four Hundred Eight And Paise Seventy Four Only	6949
3.05.03	Edges of slab and breaks in floors and walls under 20 cms wide	m	222.00	125.58	Rupees One Hundred Twenty Five And Paise Fifty Eight Only	27879

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
3.05.04	Walls of (any thickness)including attached pilasters butteresses plinth and string course etc.	sqm	154.00	458.64	Rupees Four Hundred Fifty Eight And Paise Sixty Four Only	70631
	TOTAL SUB HEAD-3.0					538841
	(SH: - 4.0 - MASONRY WORK)					
4.01	Providing and constructing Solid block masonry M-10 grade(mix 1:3:6) (1;cement ,3:crusher sand,6: 6mm metal)in CM1:6(1cement, 6 coarse sand) with Solid blocks of 30x20x15 cm size and approved quality including scaffolding, raking out of joints,curing, cost and conveyance of all materials,labour, lead, lift, etc. complete for all types of masonry works in super structure above the highest plinth level as directed by Engineer-in-Charge at all levels	cum	5.00	5743.68	Rupees Five Thousand Seven Hundred Forty Three And Paise Sixty Eight Only	28718
4.02	Providing and constructing 115mm thick brick masonry in CM 1:4 (1 cement, 4 coarse sand) in partition walls, parapets, etc. with bricks of standard sizes and of approved quality (average compressive strength not less than 50 Kg/cm2) including scaffolding, raking out of joints, curing, cost and conveyance of all materials, lead,lift, etc.complete including providing 2 Nos. of 8mm dia bars as reinforcement at every third layer wherever specified (Reinforcement shall be measured and paid for under relevent item) and as directed by Engineer-in-Charge	sqm	16.00	702.17	Rupees Seven Hundred Two And Paise Seventeen Only	11235
4.03	Extra for providing and placing in position 2 Nos. 6 mm dia M.S. bars at every third course of single block masonry at all levels including cost and conveyance of MS bars etc complete as directed by Engineer-in-Charge	sqm	16.00	76.84	Rupees Seventy Six And Paise Eighty Four Only	1229

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
4.04	Providing and constructing brick masonry in CM 1:6 (1 cement, 6 coarse sand) with country burnt bricks of 22.9x11.2x7 cm size and approved quality (average compressive strength not less than 35 kg/cm ²) including scaffolding, raking out of joints, curing, cost and conveyance of all materials, labour, lead, lift, etc. complete for all type of masonry work in super structure above highest plinth level as directed by Engineer-in-Charge at all levels					
	Ground floor	cum	16.00	5753.66	Rupees Five Thousand Seven Hundred Fifty Three And Paise Sixty Six Only	92059
	TOTAL SUB HEAD 4.0					133241
	(SH: - 5.0 - JOINERY WORKS)					
5.01	Providing and fixing doors fabricated from unplasticized poly vinyl chloride (UPVC) sections. Profiles should be three chamber system which provides high insulation properties with outer frame 60 x 55 x 35 mm with an outer wall thickness of 2.4mm. The door unit will be design with all corner joints mitred and fusion welded. Doors should be steel reinforcement with 25 x 24 x 25 mm steel reinforcement with a thickness of 1 mm to have dimensional stability. The sash should be of 102 x 60 x 62 mm and the mullion should be of 74 x 60 x 34 mm respectively. The profile should have co extruded seal. All the hardware should be screwed with self tapping screws. The lock should be with 2D multipoint locking system. The entire unit should be supplied with all standard accessories and gaskets. The door can be half glazed, full glazed and fully with panel boards of 5mm, 6mm and 10 to 20mm respectively, Complete. The rate shall include the cost and conveyance of all materials labour charges ,lead lift etc complete as directed by the Engineer-in-Charge at all levels	sqm	12.00	6,808.00	Rupees Six Thousand Eight Hundred Eight Only	81696

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
5.02	<p>Providing and fixing casement windows, ventilators fabricated from unplasticized poly vinyl chloride (UPVC) sections. Profiles should be three chamber system which provides high insulation properties with outer frame 60 x 55 mm with an outer wall thickness of 2.4mm. The window unit will be design with all corner joints mitred and fusion welded. windowss should be steel reinforcement with 25 x 24 x 25 mm steel reinforcement with a thickness of 1 mm to have dimensional stability. The sash should be of 60x75 mm and the mullion should be of 60x74 mm respectively. The profile should have co extruded seal. All the hardware like friction stayshandles should be screwed with self tapping screws. Thehandles, lock should be designed so that they cannot be released from out side. The window system should be glazed with 5 mm plain float glass and ventilators should be glazed with 3 mm plain float glass The profiles should be cut to length and welded 45 degrees. The window should be designed such that the water drainage does not pass through the reinforcement chamber. The window system should be fixed directly to the plastered brick wall using self expanding nylon plug and driving ms electroplated screws into plugThe rate shall include the cost and conveyance of all materials labour charges ,lead lift etc</p> <p>complete as directed by the Engineer-in-Charge at all levels</p>	sqm	11.00	5,658.00	Rupees Five Thousand Six Hundred Fifty Eight Only	62238

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
5.03	Supplying and fixing FRP frames made of glass fibre conforming to IS:11551-1986, glass fibre rovings conforming to IS:11390-1985, isophthalic resin conforming to IS: 6746-1972, curing agents, accelerators, fillers, additives, fire retardants and pigments as specified. The frames shall be contact moulded by laying gelcoat at 500gm/m ² and laid over with two layers of FRP mat (one layer of 300 CSM mat and one layer of 450 CSM mat). The CSM mat shall be bonded with isophthalic resin and fillers of additives by weight. The edges shall be sealed with gelcoat and FRP mat to obtain smooth finish. The frames shall have an overall size of 100x63mm including the thickness of FRP and shall be filled with seasoned treated rubber wood on the inside. Suitable depressions shall be made in the door frames for receiving the fixtures such as hinges, mortice lock as well as 30mm door shutter. (one number mortice lock at the centre and three numbers of 100mm heavy duty hinges).					
	The rate shall include providing and fixing frames of approved colour for, providing and fixing 6 Nos. of flat iron hold fast of size 300mmx30mmx3mm using stainless steel screws, fixing in PCC 1:2:4 blocks, finishing the joints to match the surroundings and finishing the frames by buffing and polishing with wax as directed. (The contractor shall supply 1 No. of frames free of cost for every 10 Nos. of frames supplied at site or part thereof for destructive testing) The shutter shall be contact moulded by laying gelcoat at 500gm/m ² and laid over with two layers of FRP mat (one layer of 300 CSM mat and another layer of 450 CSM mat) for each of the web (panels) and two layers of FRP mat (one layer of 300 CSM mat and another layer of 450 CSM mat) for the flange portion (rails and styles).					

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	The CSM mat shall be bonded with isophthalic resin in the ratio of not less than 1:2 (one part of mat : 2 part of isophthalic resin and fillers and additives) by weight. The edges shall be sealed with gelcoat and FRP mat to obtain smooth finish. The shutter/frames shall have an overall thickness of 30mm with a width of 100mm for outer frames and 80mm for resin frames (as per drawings enclosed). The shutter frames shall be provided with treated and seasoned rubber-wood on the insides to receive the tower bolts, handle, mortise lock, hinges, door closers, etc. at specified locations. Suitable depressions shall be made in the shutter frames for receiving the hinges and concealed mortise locks. The rates shall include providing and fixing shutter of					
	approved colour in the frames already provided and fixed, including fittings such as hinges, tower bolts, handles, door closers, mortice locks, etc. but excluding the cost of door fittings. The shutter shall be buffed and polished with wax as directed. The thickness of FRP laminate of hollow rails and styles shall be minimum 2mm and thickness of FRP laminate used for panel in shutter shall be minimum 3mm.(Mode of measurement: Length shall be taken as back to back of outer frame and the height shall be taken from the Sill to the top of the outer frame)	sqm	7.00	5906.23	Rupees Five Thousand Nine Hundred Six And Paise Twenty Three Only	41344
5.04	Providing and fixing at site structural glazing frame work, using black colour powder coated aluminium sections, which conforms to wind load and static load calculations. The required frame work to be fixed to the masonry wall using approved sections and properly designed anchor bolt of Hilty/ Camco or approved make along with required galvanized nuts and bolts. The frame work to be finished with proper line and level. The structural members used shall be of approved make and as per the approved design Glass (Saint Gobain/ Asahi or approved make) to be placed horizontally and vertically with 6mm X 6mm spacer form tape and applied with architectural grade silicon construction sealant (UV resistant) , Dow corning or approved make with required structural bit applied along with the perimeter of each glass panel. Silicon sealant of dow corning silicon or approved make shall be applied between glass panels to make it absolutely water tight. The rate to include cost and conveyance of all material to site,lead, lift and labour charges for erection, hire charges for scaffoldings etc complete as					

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	directed by Engineer - in - charge					
	5mm thick toughened glass	sqm	36.00	4390.47	Rupees Four Thousand Three Hundred Ninety And Paise Forty Seven Only	158057
5.05	Providing and fixing in position 4mm thick. Aluminium composite panels in external face, column/wall cladding and canopy ceiling of approved make conforming to ASTM standard/specification of alloy 3xxx series comprising virgin polyethylene core sandwiched between two skins of 0.50mm thick each special alloyed aluminium sheet to have overall thickness of 4mm with exterior coating PVDF paint. Fixing of surface cladding to masonry/concrete faces/steel structure as called for, including appropriate and adequate framework of aluminium tubular sections 50x25x3mm and 25x38x3mm to fix the composite panel to the frame, straight/slope and curvilinear profile and shapes including all accessories and all incidental work. The cladding shall be done in accordance with the drawings, fixed to sides and faces of columns/piers, to sills and soffits of window opening, returned over coping, to RCC/structural steel system, etc, to line and level. The joints shall be properly sealed with approved silicon sealant to make the joints watertight and weather proof including, fixing over aluminium frame using mechanical fasteners. Specially designed frame work with vertical and horizontal members of extruded aluminium section which shall be made of alloy 6063 T6, as approved by the Engineer-in-charge (as per drawing enclosed) The work shall be complete as per specification and directions of Engineer-in-charge					
	ACP panelling	sqm	12.00	5293.08	Rupees Five Thousand Two Hundred Ninety Three And Paise Eight Only	63517
	TOTAL OF SUB HEAD-5.0					406851
	(SH: - 6.0 - STEEL WORK)					

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
6.01	Supplying and fixing handrails made with stainless steel pipe 50mm dia vertical @ 120cm c/c for a finished height of 100 cm , horizontal 50 mm dia at the top and 4 nos intermediate horizontal pipe 25 mm dia including cutting fabricating,welding, fixing all cost of materials and labour charges etc.complete in all floors	m	80.00	3340.17	Rupees Three Thousand Three Hundred Forty And Paise Seventeen Only	267214
6.02	Providing cast iron Gate as per drawing and fixing in position including painting with two coat of anticorrosive yellow zinc chromate primer and two coats of synthetic enamel paint of approved quality and colour,including cost and conveyance of all materials, labour charges etc,complete as directed by the Engineer- in-Charge	kg	585.00	85.00	Rupees Eighty Five Only	49725
6.03	Structural steel work welded in built up sections,trusses and framed work including cutting, hoisting, fixing in position and applying two coats of Synthetic enamel paint over two coats of anticorrosive Yellow zinc chromate primer including cost and conveyance of all materials,labour charges ,lead,lift etc complete as directed by Engineer-in-Charge at all levels.	kg	272.00	83.74	Rupees Eighty Three And Paise Seventy Four Only	22777
6.04	Steel work welded in built up sections/framed work including cutting hoisting, fixing in position and applying two coats of approved make and colour synthetic enamel paint over two coats of approved make anticorrosive yellow zinc chromate primer, etc. including cost and conveyance of all materials, labour, lead,lift etc. complete as directed by Engineer- in-Charge at all levels.					
6.04.01	In stringers, treads, landings etc of staircases including use of chequered plate wherever required, all complete	kg	574.00	98.47	Rupees Ninety Eight And Paise Forty Seven Only	56522
6.04.02	In gratings, frames, guard bar, ladders, railings, brackets, gates & similar works.	kg	402.00	108.10	Rupees One Hundred Eight And Paise Ten Only	43456
6.04.03	For repairing the existing gates. Material cost is not included in the estimate	kg	600.00	40.69	Rupees Forty And Paise Sixty Nine Only	24414

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
6.05	Structural steel work welded in single sections, trusses and framed work including cutting, hoisting, fixing in position and applying two coats of Synthetic enamel paint over two coats of anticorrosive Yellow zinc chromate primer including cost and conveyance of all materials, labour charges, lead, lift etc complete as directed by Engineer in Charge at all levels.	kg	10.00	74.56	Rupees Seventy Four And Paise Fifty Six Only	746
TOTAL OF SUB HEAD-6.0						464853
(SH: - 7.0 - FLOORING WORK)						
7.01	Providing and laying ceramic/antiskid Ceramic floor tiles 300x300x7 mm of 1st quality conforming to IS : 15622 of approved make, shade, and pattern laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and jointed with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc. including cost and conveyance of all materials, labour charges, lead, lift etc, complete as directed by the Engineer in Charge at all levels. (The schedule price of tiles should be taken as Rs.401/sqm and any deviation plus or minus in the purchase price in approved shade will be adjusted in the price quoted)	sqm	94.00	1004.94	Rupees One Thousand Four And Paise Ninety Four Only	94464
7.02	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-charge in skirting, risers of steps and dados over 12mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	65.00	1072.26	Rupees One Thousand Seventy Two And Paise Twenty Six Only	69697

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
7.03	Supplying and laying approved quality and size pressed cement tiles 20mm thick in CM 1:4 (1 cement: 4 course sand),20mm thick including cost and conveyance of all materials and labour ,lead,lift,joints finished with white cement mixed with pigment of matching shade etc as directed by the Engineer in charge (colour of tiles,laying pattern etc to be got approved by the Engineer-in-Charge).	sqm	224.00	1080.32	Rupees One Thousand Eighty And Paise Thirty Two Only	241992
7.04	Providing and laying 80 mm thick High density cement concrete interlocking paver block of M - 40 grade as per IS:15658 2006 made by block making machine with strong vibratory compaction and of approved size and design/shape laid in required colour and pattern over and including 50 mm thick compacted bed of course sand, filling the joints with coarse sand etc., all complete as directed by the Engineer-in- Charge.	sqm	515.00	842.09	Rupees Eight Hundred Forty Two And Paise Nine Only	433675
	TOTAL OF SUB HEAD-7.0					839828
	(SH: - 8.0 - ROOFING WORK)					
8.01	Design, Supply and installation of tensile membrane structures using Fabric with required tensile strength, tear strength, adhesion, flame retardancy etc ,including mild steel, pre-finished and epoxy painted supporting structures designed as per the directions of the architect, including framework,clamp plates,bolts, cables etc. as per design For the roof	sqm	165.00	8957.88	Rupees Eight Thousand Nine Hundred Fifty Seven And Paise Eighty Eight Only	1478050

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
8.02	Supply and fixing of Mangalore step tile profiled colour coated sheet with 970mm-1000mm cover width,26-28mm crest height at 195-200mm pitch made out of 0.55mm TCT cold rolled steel of 300 Mpa yield strength conforming to ASTM A 368 or AS 1595 with hot dip metallic coating minimum 150gm/sqm zinc aluminium alloy coating mass (55% aluminium,43.5% zinc, & 1.5% silicon) total of both sides as per ASTM A 792 or AS 1397. The colour shall have a total coating thickness of 35 microns of polyester paint system as per AS/NZS-2728:1997 (category 3) of approved colour comprising of 20 micron exterior coat on top surface and 5 micron reverse coat on back surface over 5 microns primer coat on both surface. roofing sheet shall be crest fixed to the purlin with hot dip galvanised self drilling fasteners with integral EPDM washers. Rate shall include cost and conveyance of all materials, lead,lift,scaffolding,labour charges etc. complete at all levels as directed by Engineer-in-charge at all levels.	sqm	83.00	900.16	Rupees Nine Hundred And Paise Sixteen Only	74713
8.03	Providing and fixing gyprex tile false ceiling using 9 mm thick wall paper finish tiles of approved colour and design and of size 595x595mm in line and horizontal level suspended on interlocking metal grid of hot dipped galvanised steel sections consisting of "T", runner suitably spaced at joints to get required length and of size 24x38mm and cross "T" of size 24x28mm fixed at a spacing of 600mmx600mm cutting/making opening for services like diffusers, grills, light fittings, fixtures, smoke, detectors etc. Main "T" runner shall be suspended from ceiling using GI slotted cleats fixed to ceiling with expansion bolt/metal rawl plug, 4mm GI rods with galvanised spring steel level clips spaced at 1200mm centre along main "T", bottom, exposed width of 24mm of all "T" sections shall centre along main be polyester stove enamelled finish, all complete at all heights as per specifications, drawings and as directed by Engineer-in-Charge.	sqm	100.00	754.98	Rupees Seven Hundred Fifty Four And Paise Ninety Eight Only	75500
TOTAL OF SUB HEAD-8.0						1628263

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	(SH: - 9.0 - FINISHING WORK)					
9.01	12mm cement plaster of mix 1:4 (1 cement : 4 fine sand)including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer in charge at all levels.	sqm	521.00	224.88	Rupees Two Hundred Twenty Four And Paise Eighty Eight Only	117162
9.02	15mm cement plaster of mix, 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement 2 kg/sqm including mixing water proofing material in separately).proportion recommended by manufacturer over roof at all heights including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer in charge at all levels. (water proofing liquid will be paid	sqm	170.00	322.83	Rupees Three Hundred Twenty Two And Paise Eighty Three Only	54881
9.03	Applying one coat of cement primer of approved brand and manufacture on wall surface including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer in charge at all levels.	sqm	241.00	43.05	Rupees Forty Three And Paise Five Only	10375
9.04	Finishing walls with acrylic smooth exterior paint for new work (Two or more coat applied @1.67 ltr/10 sqm over and including base coat of water proofing cement paint applied @ 2.20kg/ 10sqm including cost and conveyance of all materials, labour charges, scaffolding s etc complete as directed by the Engineer in Charge at all levels.	sqm	180.00	87.36	Rupees Eighty Seven And Paise Thirty Six Only	15725
9.05	Painting the inside walls with ready mix plastic emulsion paint of approved quality two or more coats to smooth even finish on ceiling and walls including cost and conveyance of all materials to site, labour charges, hire charges for scaffolding, etc as directed by Engineer-in-Charge at all levels	sqm	313.00	87.74	Rupees Eighty Seven And Paise Seventy Four Only	27463
9.06	Providing and applying two coats of synthetic enamel paint over two coat of approved quality anticorrosive yellow zinchromate primer on steel work including cost and conveyance of all materials,labour charges,scafoolding etc					
	complete as directed by Engineer- in- Charge at all levels	sqm	100.00	101.31	Rupees One Hundred One And Paise Thirty One Only	10131

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	TOTAL OF SUB HEAD-9.0					235737
	(SH: - 10.0 - SANITARY INSTALLATION)					
10.01	Supplying and fixing white glazed earthenware Orissa pan 580x440 mm size of approved make with P/S trap, 10 litre capacity PVC high level flushing cistern with all fittings, 15 mm PVC connection heavy type with learning nut, PVC flush bend over flow pipe with mosquito proof arrangements, 15 mm CP angle valve etc including cutting and making good the walls and floors etc complete with all necessary specials etc complete as directed by the Engineer- in- Charge.	Each	2.00	3785.33	Rupees Three Thousand Seven Hundred Eighty Five And Paise Thirty Three Only	7571
10.02	Supplying and fixing European type floor mounted white glazed WC with trap including seat cover, with CP brass hinges and rubber buffers, 10 litres capacity PVC low level white flushing cistern with fittings and brackets, 40mm dia PVC flush bend over flow pipe with mosquito proof arrangements, with all necessary fittings complete including cutting and making good the walls and floors etc. complete as directed by the Engineer-in-Charge.	Each	3.00	5263.35	Rupees Five Thousand Two Hundred Sixty Three And Paise Thirty Five Only	15790
10.03	Providing and fixing coloured vitreous china counter top round wash basin 470 mm or nearest size of approved make including one CP brass pillar cock 15 mm NB including connecting pipes with all fittings 32 mm dia rubber plugs 32 mm dia CP brass waste coupling, 32 mm dia CP brass bottle trap, 15mm angle valve, etc. complete as directed by the Engineer-in-charge.	Each	1.00	4659.52	Rupees Four Thousand Six Hundred Fifty Nine And Paise Fifty Two Only	4660
10.04	Providing and fixing frameless mirror, with all four edges machine polished and back side protected with safety film and 4 mm thick Plywood backing and fixed on walls with mirror screws. The rate includes lifting, cutting etc. as per design and drawing.	each	1.00	355.42	Rupees Three Hundred Fifty Five And Paise Forty Two Only	355

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
10.05	Providing and fixing floor trap of PVC,110 mm outer dia(multi trap) including CP cockroach free floor grating with cup etc including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer in charge at all levels	each	6.00	356.00	Rupees Three Hundred Fifty Six Only	2136
10.06	Providing and fixing CP Towel rod of approved make including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer in charge at all levels.	each	1.00	255.76	Rupees Two Hundred Fifty Five And Paise Seventy Six Only	256
10.07	Poercelain Soap tray of approved make including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer in charge at all levels.	each	1.00	190.18	Rupees One Hundred Ninety And Paise Eighteen Only	190
10.08	Providing and fixing CP brass health faucets with 8mm dia 1 meter long flexible tube and wall hook with all fittings and fixtures complete including cutting and making good the walls and floors wherever required including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer in charge at all levels.	each	5.00	696.01	Rupees Six Hundred Ninety Six And Paise One Only	3480
10.09	Supplying, laying and jointing hard PVC pipes with PVC specials such as tees, bends, door bend, door tee, elbows,unions, etc. with clamps testing the lines rectifying any leakages or defects,etc. complete as directed by the Engineer-in-Charge for soil, waste, rain water,drains, vent pipe, etc. concealed or open at all levels including cost and conveyance of all materials, labour charges, sundries etc complete for internal work-exposed on walls as directed by the Engineer in charge					
10.09.01	160mm OD(6kg/cm2)	m	6.00	506.23	Rupees Five Hundred Six And Paise Twenty Three Only	3037
10.09.02	110mm OD(6 kg/cm2)	m	27.00	459.48	Rupees Four Hundred Fifty Nine And Paise Forty Eight Only	12406
10.09.03	75mm OD (6 kg/cm2)	m	15.00	296.52	Rupees Two Hundred Ninety Six And Paise Fifty Two Only	4448

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
10.10	Supplying, laying and jointing hard PVC pipes with PVC specials such as tees, bends, door bend, door tee, elbows,unions, etc. with clamps including cutting and making good the walls,testing the lines rectifying any leakages or defects,etc. complete as directed by the Engineer-in-Charge for soil, waste, rain water,drains, vent pipe, etc. concealed or open at all levels including cost and conveyance of all materials, labour charges, sundries etc complete for concealed work as directed by the Engineer- in-Charge					
10.10.01	110mm OD (6 kg/cm2)	m	36.00	502.38	Rupees Five Hundred Two And Paise Thirty Eight Only	18086
10.10.02	75mm OD(6kg/cm2)	m	36.00	339.19	Rupees Three Hundred Thirty Nine And Paise Nineteen Only	122110
10.10.03	50mm OD(6 kg/cm2)	m	10.00	268.40	Rupees Two Hundred Sixty Eight And Paise Forty Only	2684
10.11	Supplying, laying and jointing hard PVC pipes with PVC specials such as tees, bends, door bend, door tee, elbows,unions, etc. with clamps including earth work, refilling, ,testing the lines rectifying any leakages or defects,etc. complete as directed by the Engineer-in-Charge for soil, waste, rain water,drains, vent pipe, etc. concealed or open at all levels including cost and conveyance of all materials, labour charges, sundries etc complete for external works as directed by the Engineer -in-Charge					
10.11.01	160mm OD(6 kg/cm2)	m	36.00	550.26	Rupees Five Hundred Fifty And Paise Twenty Six Only	19809
10.11.02	110mm OD(6 kg/cm2)	m	24.00	438.93	Rupees Four Hundred Thirty Eight And Paise Ninety Three Only	10534
10.11.03	75mm OD(6 kg/cm2)	m	6.00	245.96	Rupees Two Hundred Forty Five And Paise Ninety Six Only	1476
	TOTAL OF SUB HEAD-10.0					119129

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
	(SH: - 11.0 - WATER SUPPLY)					
11.01	Supplying, laying, and jointing schedule 40 UPVC ASTM pipe and Schedule 80 ASTM-UPVC specials of approved make such as tees elbows, unions,bends,sockets bends,flanges, reducers, end caps,saddles, plugs,coupling, etc. including cost of all jointing materials like solvent cement, bolts, nuts, rubber washers,ferrule,pipe supports, cost of extra wastage of fittings during laying of pipe line such as rectification and recharging of the existing line as and when required etc.hire of tools and plant, cost and conveyance of water for testing after connecting to mains including all testing pipe line to the specified hydrostatic test pressure,rectifying any leakage or defects etc. complete.as directed by Engineer-in-Charge for water supply.					
11.01.01	80 mm dia ID	m	6.00	487.69	Rupees Four Hundred Eighty Seven And Paise Sixty Nine Only	2926
11.01.02	63 mm dia ID	m	6.00	408.34	Rupees Four Hundred Eight And Paise Thirty Four Only	2450
11.01.03	50 mm dia ID	m	15.00	269.05	Rupees Two Hundred Sixty Nine And Paise Five Only	4036
11.01.04	40 mm dia ID	m	15.00	190.74	Rupees One Hundred Ninety And Paise Seventy Four Only	2861
11.01.05	32 mm dia ID	m	6.00	163.56	Rupees One Hundred Sixty Three And Paise Fifty Six Only	981

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
11.02	Supplying, laying, jointing and hydrostatically testing ISI marked PVC pipes as per IS 4985 and specials such as Tees, elbows,bends,flanges, reducers, end caps,saddles, plugs,coupling, etc. as per IS 7834 or IS 10124as the case may be including cost of all jointing materials like solvent cement, bolts, nuts, rubber washers,ferrule,pipe supports, cost of extra wastage of fittings during laying of pipe line such as rectification and recharging of the existing line as and when required etc.hire of tools and plant, cost and conveyance of water for testing after connecting to mains including all testing charges,rectifying any leakage or defects, cutting and making good the walls etc. complete.as directed by Engineer-in-Charge for concealed lines for water supply.					
11.02.01	40 mm OD (10 kg/cm ²)	m	6.00	268.40	Rupees Two Hundred Sixty Eight And Paise Forty Only	1610
11.02.02	32 mm OD (10 kg/cm ²)	m	18.00	240.35	Rupees Two Hundred Forty And Paise Thirty Five Only	4326
11.02.03	25 mm OD (10 kg/cm ²)	m	36.00	226.99	Rupees Two Hundred Twenty Six And Paise Ninety Nine Only	8172
11.02.04	20 mm OD (10 kg/cm ²)	m	15.00	215.02	Rupees Two Hundred Fifteen And Paise Two Only	3225
11.03	Providing and fixing gun metal gate valve with C.I. Wheel of approved quality (screwed end) including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer- in-Charge at all levels					
11.03.01	40 mm dia nominal bore	Each	1.00	1168.24	Rupees One Thousand One Hundred Sixty Eight And Paise Twenty Four Only	1168
11.03.02	32 mm dia nominal bore	Each	2.00	727.14	Rupees Seven Hundred Twenty Seven And Paise Fourteen Only	1454
11.03.03	25 mm dia nominal bore	Each	1.00	608.61	Rupees Six Hundred Eight And Paise Sixty One Only	609

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
11.04	Supplying approved make PVC gully trap and CI grating 300mmx300mm size and light duty C.I cover and frames 500mmx500mm of weight not less than 21kg each(CI MH cover and frame as per IS:1726) single sealed of size conveying to size the above mentioned items and constructing 50cmx50cm internal size gully trap chamber and depth upto 60cm,230 thk brick wall in CM 1:6 on a foundation of PCC 1:4:8.100mm thick plastering inside with CM 1:3,12mm thk with a neat cement flushing coat and conveying to site,cleaning ,installing and testing approved make PVC gully trap with 160mm outlet(Fabricated),surrounding with CC 1:1.5:3, 150x150mm, top with CI grating above the PVC gully trap and light duty CI cover and frame over the chamber including cost of all materials, etc complete as per approved drawing and as directed by Engineer-in- Charge	Each	1.00	2033.45	Rupees Two Thousand Thirty Three And Paise Forty Five Only	2033
11.05	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 Cement : 4 coarse sand) R.C.C. top slab with 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) foundation concrete with 1:4:8 mix (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 Cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer-in-Charge					
11.05.01	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :					
	With bricks.Class designation 75	Each	4.00	11352.44	Rupees Eleven Thousand Three Hundred Fifty Two And Paise Forty Four Only	45410

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
11.07	Providing and fixing approved make CP brass long body tap (heavy duty)confirming to IS: 8931 including CP cup for 15 mm dia water line,cost and conveyance of all materials,labour charges etc complete as directed by Engineer- in- Charge at all levels	Each	5.00	668.58	Rupees Six Hundred Sixty Eight And Paise Fifty Eight Only	3343
TOTAL OF SUB HEAD-11.0						84605
(SH: - 12.0 - MISCELLANEOUS BUILDING WORK)						
12.01	Expansion joint treatment Providing, Protecting and fixing of Aluminium Flat Strip (AFS) on the surface. The size of AFS will be 3mm thick 15cm width. AFS can be screw fixing with gap of every 15cm (one side screw fixing and the other side oval shape screw fixing for enabling Expansion joint movement.The rate to include cost and conveyance of all material to site,lead, lift and labour charges for erection, hire charges for scaffoldings etc complete as directed by Engineer - in - charge	rm	15.00	883.87	Rupees Eight Hundred Eighty Three And Paise Eighty Seven Only	13258
12.02	Pressure grouting in R.C.C. Slab bottom at 1326gm/Sq.cm. (40PSI) wherever required using modified cement slurry added with expansive additive of approved make water proofing compound 225 gm/50 kg of cement after fixing up of 12 mm dia PVC nipple etc. Complete as per the manufacturers direction. The rate to include cost and conveyance of all materials ,lead, lift and labour charges, hire charges for scaffoldings etc complete as directed by Engineer - in - charge	point	336.00	258.58	Rupees Two Hundred Fifty Eight And Paise Fifty Eight Only	86884
12.03	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50 x 50mm including strengthening with 2mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-Charge. Made of G.I. wire of dia. 4mm, PVC coated to achieve outer dia. Not less than 5mm in required colout and shade.	sqm	360.00	666.48	Rupees Six Hundred Sixty Six And Paise Forty Eight Only	239933

SI.No	Description Of Items	Unit	Quantity	Rate(Rs)		Amount(Rs)
				Rate in Figures	Rate in Words	
12.04	Cleaning of open well including removal of slush,vegetation,etc. as per site Engineer-in-Charge	Job	1.00	2627.32	Rupees Two Thousand Six Hundred Twenty Seven And Paise Thirty Two Only	2627
	TOTAL OF SUB HEAD-12.0					342703
	(SH: - 13.0 - DISMANTLING WORKS)					
13.01	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metre lead.					
	For thickenss of tiles above 10mm and upto 25mm	sqm	169.60	34.17	Rupees Thirty Four And Paise Seventeen Only	5795
	TOTAL OF SUB HEAD-13.0					5795
	TOTAL FOR PART -I					5047221

NATIONAL GAMES SECRETARIAT

Renovation / Upgradation works at University Stadium, Trivandrum - Additional works Civil and Electrical

SPECIFICATION AND SCHEDULE OF QUANTITIES- PART II- ELECTRICAL WORKS

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
1	PART A					
	HT EQUIPMENTS					
1.1	Supply of TOD meter (Electronic trivector type) mounted separately within the compartment provided in the Metering KIOSK	Each	1	24789.00	Rupees Twenty Four Thousand Seven Hundred Eighty Nine Only	24789.00
1.2	Installation,testing and commissioning of TOD meter in the existing KIOSK with test terminal block,control fuses, armoured copper cable between CT PT unit & TODmeter. The KIOSK shall be made ready for energizing as per the requirement of K.S.E.B (In presence of the Engineer in Charge).The quoted rate shall be inclusive of transportaion of TOD meter to the lab and returning to the site.	job	1	3084.00	Rupees Three Thousand Eighty Four Only	3084.00
1.3	Installation,testing and commissioning of CT PT Unit including the cost of transportation of CT PT unit to the testing lab and returning to the site as per the statutory rules.	job	1	3584.00	Rupees Three Thousand Five Hundred Eighty Four Only	3584.00
1.4	Testing and commissioning of the existing 11KV HT Panel having 11KV , 250 mVA 630A HT Load Break Switch with shunt trip	Each	1	4413.00	Rupees Four Thousand Four Hundred Thirteen Only	4413.00
1.5	Testing , commissioning and make ready for energization of the existing 250 KVA 11 KV / 433 Volt 3 phase, 50 c/s.oil immersed and naturally cooled, indoor type copper wound transformer connected delta on HV side and star on LV side with additional neutral brought out on load side,rating 11000/433 volts with HV tapping plus or minus 2.5%-5% continuously rated for full load (In presence of the Engineer in Charge)	Each	1	4413.00	Rupees Four Thousand Four Hundred Thirteen Only	4413.00
1.6	Transformer oil top up to be done if required	ltr	60	131.00	Rupees One Hundred Thirty One Only	7860.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
	Sub Total - Part - A					48143.00
	PART B					
2.0	LT PANEL BOARD & ACCESSORIES					
2.1	Testing , commissioning and make ready for energization of the existing floor mounted dust & vermin proof indoor cubicle type MSB (In presence of the Engineer in Charge) suitable for 415V, 3 phase, 50Hz supply with provision for fixing incoming & outgoing switches fabricated using 2 mm MS sheet powder coated with necessary cable alley & bus bar chamber for all switches. The accesories and specifications of the panel are as follows					
	KSEB Incomer - 630A 4P 35kA MCCB set at 330A with 3 O/Cwith S/C, 1 E/F and U/V release - 1 No:					
	DG (Future) Incomer - 400A 4P Isolator - 1 No:					
	KSEB Incomer and DG incomer have Castle Key interlock provision - Two Lock with One key					
	Indications					
	All Indicating meters as per statutory regulations					
	Bus bar					
	630A TPN Aluminium Busbar					
	Out Goings					
	250A TP 25kA current limiting type MCCB with isolation duty - 3 Nos:					
	250A TPN Isolator - 1 No:	Each	1	2435.00	Rupees Two Thousand Four Hundred Thirty Five Only	2435.00
2.2	Testing , commissioning and make ready for energization of the existing floor mounted dust & vermin proof indoor cubicle type SSB-1 (In presence of the Engineer in Charge) suitable for 415V, 3 phase, 50Hz supply with provision for fixing incoming & outgoing switches fabricated using 2 mm MS sheet powder coated with necessary cable alley & bus bar chamber for all switches. The accsories and specifications of the panel are as follows					

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
	Incomer					
	250A TPN Isolator - 1 No:					
	Indications					
	All Indicating meters as per statutory regulations					
	Bus bar					
	250A TPN Aluminium Busbar					
	Outgoings					
	100A TP 25kA MCCB with isolation duty - 5 Nos:	Each	1	2435.00	Rupees Two Thousand Four Hundred Thirty Five Only	2435.00
2.3	Testing , commissioning and make ready for energization of the existing floor mounted dust & vermin proof indoor cubicle type SSB-2 (In presence of the Engineer in Charge) suitable for 415V, 3 phase, 50Hz supply with provision for fixing incoming & outgoing switches fabricated using 2 mm MS sheet powder coated with necessary cable alley & bus bar chamber for all switches. The accsories and specifications of the panel are as follows					
	Incomer					
	250A TPN Isolator - 1 No:					
	Indications					
	All Indicating meters as per statutory regulations					
	Bus bar					
	250A TPN Aluminium Busbar					
	Outgoings					
	100A TP 25kA MCCB with isolation duty - 3 Nos:					
	63A TP 25kA MCCB with isolation duty - 3 Nos:	Each	1	2435.00	Rupees Two Thousand Four Hundred Thirty Five Only	2435.00
2.4	Testing , commissioning and make ready for energization of the existing floor mounted dust & vermin proof indoor cubicle type 115KVAR APFC panel (In presence of the Engineer in Charge) having APFC Relay suitable for 415V, 3 phase, 50Hz supply with provision for fixing incoming & outgoing switches fabricated using 2 mm MS sheet powder coated with necessary cable alley & bus bar chamber for all switches. The accsories and specifications of the panel are as follows					

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
	Incomer					
	250A TPN SFU - 1 No:					
	Indications					
	All Indicating meters as per statutory regulations					
	Bus bar					
	200A TPN Aluminium Busbar					
	Outgoings					
	63A TPN SFU with HRC Fuse - 2 Nos:					
	32A TPN SFU with HRC Fuse- 6 Nos:					
	63A TP Contactor - 3 Nos					
	32A TP Contactor -5 Nos.					
	25 KVAR Capacitor -1 No					
	20KVAR - 1 No					
	15 KVAR -2 Nos:					
	10 KVAR - 3 Nos					
	5 KVAR - 2 Nos:	Each	1	2435.00	Rupees Two Thousand Four Hundred Thirty Five Only	2435.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
2.5	Testing , commissioning and make ready for energization of the existing floor mounted dust & vermin proof indoor cubicle type Fire Pump Panel (In presence of the Engineer in Charge) having suitable for 415V, 3 phase, 50Hz supply with provision for fixing incoming & outgoing switches fabricated using 2 mm MS sheet powder coated with necessary cable alley & bus bar chamber for all switches. The accsories and specifications of the panel are as follows					
	Incomer					
	250A TPN Isolator - 1 No:					
	Indications					
	All Indicating meters as per statutory regulations					
	Bus bar					
	250A TPN Aluminium Busbar					
	Outgoings					
	125A TPN Isolator - 1 No.					
	63A TPN Isolator - 1 Nos:					
	40A TPN Isolator - 1 Nos:					
	125A 4P Load Break Change Over Switch - 1 No	Each	1	2435.00	Rupees Two Thousand Four Hundred Thirty Five Only	2435.00
	Sub Total - Part -B					12175.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
	PART C					
3	WIRING & 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/ceiling fan point/ exhaust fan point/call bell point	each	30	1170.00	Rupees One Thousand One Hundred Seventy Only	35100.00
3.2	Wiring for Circuit Wiring with 2X4 sq.mm. PVC insulated, copper conductor, stranded cable in surface/recessed 25mm dia PVC conduit along with 1 no.2.5 sq. mm. PVC insulated copper wire for loop earthing as required.	m	60	272.00	Rupees Two Hundred Seventy Two Only	16320.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
3.3	Wiring for Circuit Wiring with 2X2.5 sq.mm. PVC insulated, copper conductor, stranded cable in surface/recessed 25mm dia PVC conduit along with 1 no.1.5 sq. mm. PVC insulated copper wire for loop earthing as required.	m	120	222.00	Rupees Two Hundred Twenty Two Only	26640.00
3.4	Wiring for Circuit Wiring with 2X1.5 sq.mm. PVC insulated, copper conductor, stranded cable in surface/recessed 20mm dia PVC conduit along with 1 no.1.5 sq. mm. PVC insulated copper wire for loop earthing as required.	m	120.00	202.00	Rupees Two Hundred Two Only	24240.00
3.5	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.	each	8.00	464.00	Rupees Four Hundred Sixty Four Only	3712.00
3.6	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 asrequired	each	1.00	367.00	Rupees Three Hundred Sixty Seven Only	367.00
3.7	Supply & fixing suitable size GI box with modular front plate and cover on surface or in recess, including providing & fixing of 3pin combined 6/16A modular socket outlet with connection etc as required.	each	1.00	440.00	Rupees Four Hundred Forty Only	440.00
Sub Total - Part - C						106819.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
	PART D					
4	MCB & MCB DISTRIBUTION BOARDS					
4.1	Testing and Commissioning of 3 phase Vertical / Horizontal MCB distribution board (In presence of the Engineer in Charge) inclusive of copper / brass busbar, neutral link and DIN bar with 100A TP / 4P MCCB or 63A / 40A 4P MCB and 100mA / 30mA RCCB as incomer and 6A -32 A SP / TP MCB 's as outgoings .	each	23	688.00	Rupees Six Hundred Eighty Eight Only	15824.00
4.2	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.					
4.2.1	6 way -single phase double cover (IP 42/43)	each	1	1159.00	Rupees One Thousand One Hundred Fifty Nine Only	1159.00
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	2 pole 16amps. (240 Volts), 30mA sensitivity	each	1	2463.00	Rupees Two Thousand Four Hundred Sixty Three Only	2463.00
4.4	Supply and fixing of following rating, 10 KA, Miniature circuit breakers of the following series as required.					
4.4.1	6A to 32A, SP, B/C-CURVE	each	15	213.00	Rupees Two Hundred Thirteen Only	3195.00
4.5	Supply and fixing of SP MCB blanking plate in the existing MCB DB's as required	each	30	13.00	Rupees Thirteen Only	390.00
	Sub Total - Part - D					23031.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
	PART E					
5	LIGHT FIXTURES & FAN					
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 (Philips TCH 207 or equivalent make) (Sample shall be approved by the engineer in charge)	Each	6	634.00	Rupees Six Hundred Thirty Four Only	3804.00
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 (Philips TCH 207 or equivalent make) (Sample shall be approved by the engineer in charge)	each	6	540.00	Rupees Five Hundred Forty Only	3240.00
5.3	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	each	5	1338.00	Rupees One Thousand Three Hundred Thirty Eight Only	6690.00
5.4	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 conforms to IS 374/1979 as required complete. (Sample shall be approved by the engineer in charge)					
	1200mm sweep	each	2	1734.00	Rupees One Thousand Seven Hundred Thirty Four Only	3468.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
5.5	Installation, testing and commissioning of prewired flourescent / CFL fitting of all types complete with all accessories and fluorescent lamps of all types directly on wall / surface and giving connections with 16/0.20 mm 3 core PVC insulated and sheatherd round copper conductor flex wire or extending the original wiring and giving connections as required.	each	12	127.00	Rupees One Hundred Twenty Seven Only	1524.00
5.6	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.	each	2	136.00	Rupees One Hundred Thirty Six Only	272.00
5.7	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.	each	5	675.00	Rupees Six Hundred Seventy Five Only	3375.00
5.8	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.	each	2	532.00	Rupees Five Hundred Thirty Two Only	1064.00
5.9	Checking and giving necessary connections of cables / wires and made ready to work condition of the existing M.H. Street Light Fittings with Lamp on Street light Poles, at mounting height of about 9Mtrs.	each	10	943.00	Rupees Nine Hundred Forty Three Only	9430.00
Sub Total - Part - E						32867.00
PART F						
6 CABLES & CABLING						
HT CABLING						
6.1	Supply of 3C X 150 sq.mm. size of XLPE insulated PVC sheathed, Aluminium conductor armoured power cable of 11 KV grade conforming to IS 7098 amended upto date.	m	160	1544.00	Rupees One Thousand Five Hundred Forty Four Only	247040.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
6.2	Supply of 3C X 300 sq.mm. size of XLPE insulated PVC sheathed, Aluminium conductor armoured power cable of 11 KV grade conforming to IS 7098 amended upto date.	m	5	2536.00	Rupees Two Thousand Five Hundred Thirty Six Only	12680.00
6.3	Laying of one number 11 kV grade XLPE cable of size not exceeding 400 sq.mm in the existing masonry open duct as required.	m	20	72.00	Rupees Seventy Two Only	1440.00
6.4	Laying of one number 11 kV grade XLPE cable of size not exceeding 400 sq.mm in the existing RCC/ HUME/ STONEWARE/ METAL pipe as required.	m	20	90.00	Rupees Ninety Only	1800.00
6.5	Laying of one number 11 kV grade XLPE cable insulated and PVC sheathed/XLPE power cable to the following sizes in ground including excavation of trench of size 35X 120 cm, sand cushioning up to a height of 25 cm, providing protective covering with country burnt bricks laid breathwise refilling the trench etc. as required.					
	Cable size exceeding 120 Sq.mm but not exceeding 400 sq.mm	m	125	328.00	Rupees Three Hundred Twenty Eight Only	41000.00
6.6	Supplying and making outdoor cable end termination with push on end termination kit complete with all accessories including lugs for 3C X150 sq.mm., armoured, XLPE aluminium conductor cable of 11kV grade as required.	each	1	12260.00	Rupees Twelve Thousand Two Hundred Sixty Only	12260.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
6.7	Supplying and making indoor cable end termination with push-on end termination complete with all accessories including lugs for 3C X 150sq.mm., armoured, XLPE aluminium conductor cable of 11kV grade as required.	each	5	10565.00	Rupees Ten Thousand Five Hundred Sixty Five Only	52825.00
LT CABLING						
6.8	Testing following size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium /copper conductor cable including disconnecting and reconnecting after testing conforming to IS 7098 (Part 1) amended upto date.					
6.8.1	Cable size not exceeding 25Sq mm	run	6.00	344.00	Rupees Three Hundred Forty Four Only	2064.00
6.8.2	Above 25 Sq.mm upto 120 Sq.mm	run	11.00	453.00	Rupees Four Hundred Fifty Three Only	4983.00
6.8.3	Above 120 Sq.mm upto 400 Sq.mm	run	6.00	561.00	Rupees Five Hundred Sixty One Only	3366.00
Sub Total - Part - F						379458.00
Part -G						
7	EARTHING					
7.1	Testing the earth resistance of the individual earth pits after removing all inter connections and test the earth resistance of existing earth grid after reconnecting all the interconnections. The test to be carried out using four terminal earth tester(in presence of the Engineer in charge).	job	1	3263.00	Rupees Three Thousand Two Hundred Sixty Three Only	3263.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
7.2	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.(only to be done if required and as per the instruction from Engineer in charge)	each	1	13347.00	Rupees Thirteen Thousand Three Hundred Forty Seven Only	13347.00
7.3	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. (only to be done if required and as per the instruction from Engineer in charge)	each	1	5635.00	Rupees Five Thousand Six Hundred Thirty Five Only	5635.00
7.4	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.					

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
7.4.1	25x3 mm copper strip tinned at the points of contacts	m	20	476.00	Rupees Four Hundred Seventy Six Only	9520.00
7.4.2	25x6mm GI strip	m	60	146.00	Rupees One Hundred Forty Six Only	8760.00
7.4.3	3.15mm copper conductor (10 SWG)	m	30	83.00	Rupees Eighty Three Only	2490.00
7.4.4	4.00 mm GI conductor (8 SWG)	m	30	32.00	Rupees Thirty Two Only	960.00
	Sub total - Part - G					43975.00
	PART H					
8	MISCELLANEOUS ITEMS					
8.1	Supply and fixing anodised aluminum glass framed shock treatment chart.	job	1.00	422.00	Rupees Four Hundred Twenty Two Only	422.00
8.2	Supply and providing 6mm thick , 2 meter length and 1m wide electrical grade chequered type rubber mat to withstand 3.3KV dielectric strength conforming to IS 5429/1969.	each	7.00	1158.00	Rupees One Thousand One Hundred Fifty Eight Only	8106.00
8.3	Supply and fixing of First aid box	each	1.00	589.00	Rupees Five Hundred Eighty Nine Only	589.00
8.4	Supplying of Rubber hand gloves suitable for 1.1 KV.	pair	1.00	360.00	Rupees Three Hundred Sixty Only	360.00
8.5	Supplying, threading, laying / clamping and jointing of the following sizes of 'B' class GI pipe with all required accessories in ground in the existing trench or in surface as protective covering to cables / earth leads.					
8.5.1	40mm	m	10	259.00	Rupees Two Hundred Fifty Nine Only	2590.00
8.5.2	50 mm	m	10	323.00	Rupees Three Hundred Twenty Three Only	3230.00
8.5.3	100 mm	m	10	941.00	Rupees Nine Hundred Forty One Only	9410.00
8.5.4	125mm	m	15	1321.00	Rupees One Thousand Three Hundred Twenty One Only	19815.00
8.6	Supply and fixing of chequered plate of 6 mm thick including cutting to required size using gas cutter and lay the same over the trench, fixing of nosing angle and supports for chequered plate, related civil works, finishing etc. and painting with two with two coats of enamel paint over one coat of Zinchromate primer as required.	kg	400	75.00	Rupees Seventy Five Only	30000.00
	Sub Total Part -H					74522.00
	TOTAL FOR PART-II					720990.00

Item No	Specification	Unit	Qty	Rate in Figures	Rate in words	Amount in Rs
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NATIONAL GAMES SECRETARIATE

Renovation/Upgradation of University Stadium at Trivandrum- Additional works Civil & electrical

SCHEDULE OF QUANTITIES- PART III- FIRE PROTECTION AND DETECTION SYSTEM

SL. NO.	DESCRIPTION OF ITEMS	UNIT	Qty	RATE IN FIGURES	RATE IN WORDS	AMOUNT (Rs)
1.0	Fire Protection and Detection System					
	Supply and Installation					
1.1	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 AC, 0.2A Inductive/10A resistive 250V DC suit with ball valve etc. complete as required.	Each	3.00	2418.00	Rupees Two Thousand Four Hundred Eighteen Only	7254.00
1.2	Supplying and fixing 63 mm dia, 15 mtr. Long RRL hose pipe with 63 mm dia Male and Female Gun metal couplings duly binded with GI wire, rivets etc. conforming to IS 636 (type-A) as required.	Each	21.00	5764.00	Rupees Five Thousand Seven Hundred Sixty Four Only	121044.00
1.3	Supplying & fixing 63 mm dia Gun metal branch pipe with 20 mm (nominal internal diameter) size Gun Metal nozzle conforming to IS 903, suitable for instantaneous connection to inter-connect hose pipe coupling as required.	Each	21.00	2266.00	Rupees Two Thousand Two Hundred Sixty Six Only	47586.00
1.4	Supply, installation, testing and commissioning of Butterfly valves conforming to IS 3095 of PN 16 rating manufactured of Cast iron body,SG Iron seat,isi marked complete as required of the following dia.					
	65 mm dia.	Each	1.00	3120.00	Rupees Three Thousand One Hundred Twenty Only	3120.00
1.5	Construction of Pedestals for Fixing hose boxes in yard areas including excavation, pcc 1:2:4,Necessary angle supports for hose boxe supports(65*65*6mm) with necessary zinchromate primer and painting complete as instructed by Engineer in Charge.	Set	15.00	2066.00	Rupees Two Thousand Sixty Six Only	30990.00
1.6	Testing and commissioning charges For Hydrant and Detection System including Obtaining NOC from Fire and Rescue Department.	lot	1.00	50000.00	Rupees Fifty Thousand Only	50000.00
	Total for testing and commissioning of fire detection and hydrant system.					259994.00

SL. NO.	DESCRIPTION OF ITEMS	UNIT	Qty	RATE IN FIGURES	RATE IN WORDS	AMOUNT (Rs)
2.0	Maintenance contract for the above systems supplied and executed under this contract after the guarantee period. Job includes satisfactory maintenance of the systems, attending to complaints, repairs/ rectifications works, preventive/ routine maintenance as per OEM's recommendations/ maintenance schedules, periodic visit once in three months in guarantee period and AMC period, maintenance of records etc. and making the system into good working condition.					
	The work also includes satisfactory maintenance including supply & replacement of all consumables, Fire drill once in every year etc. However, repairs, supply & replacement of all defective components shall be covered under warranty.	lot	1.00	200000.00	Rupees Two Lakh(s) Only	200000.00
	TOTAL FOR PART III					459994.00
	GRAND TOTAL FOR PART I+ II + III					6628204.62

NATIONAL GAMES SECRETARIAT

Renovation / Upgradation works at University Stadium, Trivandrum - Additional Works Civil and Electrical

ABSTRACT OF ESTIMATE

Description	Amount (Rs.)
Part -I -Civil Works	5047221
Part -II- Electrical Works	720990
Part -III- Fire protection system	459994
GRAND TOTAL	6228205

Rupees Sixty Two Lakhs Twenty Eight Thousand Two Hundred And Five Only

I/We agree to carry out the work (1) at estimate rate

(2) at% below the estimate (in figure & words)

(3) at.....% above the estimate (in figure & words).

Less cost of market rate items

Total Value of PWD schedule items	30,85,516
Total Value of Market rate items	31,42,688
GRAND TOTAL	62,28,205

**** Tender excess/deduction will not be applicable for market rate items in the schedule of contract**

Signature of Contractor

Witness

Name.....

Address.....