

Schedule of Work					
State:- H.P.				Divn:- SCED	
Branch:-Elect&Mech.				Sub:- SCESD-I	
Name of Work:- Annual Repairs and maintenance, Operation (AR & MO) of Chadwick House, NAAA under sub Division I Shimla (HP).(SH: - Providing service connection, AC Units and Other E.I Works at server room).					
Sr. No.	Description of item	Qty.	Rate	Unit	Amount
1	Supply of following size of 1.1KV grade Aluminium armoured Conductor XLPE insulated & PVC sheathed cable as per IS: 7098 (Part-1) 1988 complete as required at site.				
(i)	3.5 X 50 Sqmm aluminium cable	120.00	Mtr	720.00	86400.00
2	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
(i)	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp).	15.00	Mtr	151.00	2265.00
3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required				
(i)	Above 35 sq. mm and upto 95 sq. mm	100.00	Mtr	72.00	7200.00
4	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the ,trench but excluding sand cushioning and protective covering etc., complete as required.				
(i)	90 mm dia (OD-90 mm & ID-76 mm nominal)	100	Mtr	336.00	33600.00
5	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
(i)	3½ X 50 sq. mm (35mm)	2	Each	484.00	968.00
6	Fabrication, Supplying, installation, testing & commissioning double door ou tdoor type CPRI approved electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm. Thick CRCA sheet, 200Amp. heat shi\rinkable Al. alloy Bus Bar with necessary colour coding, minimum 300mm Deep having IP-42 degree of protection compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade, cable alley, interconnection, including providing and fixing following switchgears and accessories alongwith internal wiring, earth terminals, labeling etc. complete in all respect, suitable for operation on 415 V, 3 phase, 50 Hz. AC supply for Outdoor application as required.				
(A)	incoming				
(i)	125 A, TPMCCB, 16 K.A - 1 No.				
(ii)	Ammeter with Selector switches - 1 No.				
(iii)	Voltmeter Selector switches - 1 No.				
(iv)	Bus Bar				
(v)	Set of 3 Phase LED indicating Lamp - 1 Set				
(vi)	CTs (15 VA Bunden and class 1.0 accuracy).				
(B)	Outgoing				
(i)	63 Amp TPMCCB - 3 Nos.				
	1 Job	1	Job	75161.00	75161.00

7	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
(i)	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 40 mm nominal size derived from natural sources)	3	cum	7780.30	23340.90
8	Supplying, Installation, Testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight (Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required.				
(i)	1 output per phase and suitable for single phase supply .	3	Each	4673.00	14019.00
9	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator).				
(i)	6 way (4 + 18), Double door	1	Each	5299	5299.00
10	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
(i)	Single pole	24	Each	285.00	6840.00
(ii)	Single pole and neutral	3	Each	643.00	1929.00
(iii)	Triple pole and neutral	1	Each	1301.00	1301.00
11	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
(i)	25 A	3	Each	2141.00	6423.00
12	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	10	Each	659.00	6590.00
13	LED Panel light 2x2 ft. (System lumen efficacy ≥ 105 < 120 lm/Watt) Supplying, installation, Testing & Commissioning of Panel light 2x2 ft., of following body material and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -5 0C to 40 0C, internal surge protection of 2.5 KV with Short & Open circuit protection, THD < 10% , P. F. ≥ 0.95 , IP20, CRI >80, UGR (Unified Glare Rating) < 19, Flicker free, (flicker should be below 5 %), life time (LED,				

	Driver & electrical circuitry), of minimum 50000 Burning Hours with, 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K / 4000°K / 5700°K / 6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc.				
	as required with Minimum 5 year OEM warranty. System lumen efficacy ≥ 105 <120 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness > 1.20 mm)				
(i)	36 watt	10	Each	2508.00	25080.00
14	Wiring for light point/ fan point/ exhaust fanpoint/ callbell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable etc. as required.				
(i)	Group C	10	Point	2101.00	21010.00
15	Supply & Fixing of CO2 type fire extinguisher ISI marked conforming to IS : 15683. Capacity 4.5 Kg. complete with delivery hose horn, wheel type release valve, locking arrangement, operation manual and bracket. Operating temperature : - 30°C to +60°C. with suitable metallic dash fastner of 75mm length (approx.) and hanger, clamps on existing wall etc. as required.				
(i)	4.5 Kg capacity	6	Each	5987.00	35922.00
16	Earthing with G.I. earth pipe 4.5 Meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	2	Set	7658.00	15316.00
17	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	25	Mtr.	755.00	18875.00
18	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	15	Mtr.	287.00	4305.00
19	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	120	Mtr.	84.00	10080.00

20	Supplying , Installation, Testing and Commissioning of Air Cooled Hi Wall split type Air conditioners complete with Indoor unit(IDU), Out door unit (ODU), surface / concealed copper Refrigerant piping with insulation (closed cell elastomeric nitrile rubber tubular pipe section) upto 3 Mtr (IDU to ODU), copper power cable upto 3.5 Mtr (IDU to ODU) i/c drain pipe R-32/R-410/ R-407 Green Refrigerant, wireless Remote control, suitable for working between 180-260V with low & high voltage cutoff and 50 hz ,1 phase AC supply capable of performing cooling, dehumidification, air circulation of following capacity with Scroll / rotary compressor. The system shall be able to deliver 100% of the rated capacity upto 42 0C. Min 5 year Original				
	Equipment Manufacturer (OEM) warranty both compressor and Printed Circuit Board (PCB). Must comply : Electrical cable IS 694 or IS 9968 temperature sensing control IS m/International Electrotechnical Commission (IEC) 60730, hermetic compressor IS 10617, heat exchanger IS 11329, capacitor IS 2993 and motor IS 12615. Complete as per CPWD specification and IS : 1391 Part II 2023. The system shall be able to operate up to 50 0C (out door ambient temperature).				
(i)	1.5 TR with 5 Star BEE Rating	3	Each	43539.00	130617.00
21	Supplying Insattallation testing and commissioning of single phase 16 Amp contactor sutable for mounting on din rail in existing D.B complete coonection etc. as required.	3	Each	2198.00	6594.00
	Total				539134.90
	Say Rs.				539135

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