

S.NO.	Item Description	Units	QTY	RATES	TOTAL AMOUNT
1)	<b><u>SUBHEAD-I FIRE PUMP EQUIPMENTS</u></b>				
	Supplying, installation, testing and commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required :				
	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.				
	Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.				
	M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required				
	<u>Suitable cement concrete foundation duly plastered with anti vibration pads.</u>				
	1620 lpm at 56 m Head	set	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 respects, as required : (Diesel Driven Pump) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520				
	Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 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 standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.				
	M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	1620 lpm at 56 m Head	set	1		
3)	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump)				
	Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520				
	Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325.				
	M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	180 lpm at 56 m Head	Set	1		
4)	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump)				
	Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520				
	Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.				
	M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.				
	Suitable cement concrete foundation duly plastered and with anti vibration pads				
	900 lpm at 35 m Head	Set	1		

5)	Providing laying, testing and commissioning of class 'C' heavy duty MS pipe confirming to IS 3589/1239 including fittings like elbows, tees, flanges, reducer, jointing with nuts bolts, gasket and welding etc. and supports, as required and painting with tow or more coats of synthetic enamel paining of required shade complet as directed by Engineer-iin-charge.				
	200mm dia	Mtr.	15.00		
	150mm dia	Mtr.	26.00		
	100mm dia	Mtr.	135.00		
	80mm dia	Mtr.	3.00		
6)	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required.				
	200 mm dia	Each	2.00		
	150 mm dia	Each	8.00		
	100 mm dia	Mtr.	1.00		
	80 mm dia	Each	1.00		
7)	Providing, installation, testing and commissioning of dual plate non-return valve of following sizes confirming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
	200 mm dia	Each	1.00		
	150 mm dia	Each	2.00		
	100 mm dia	Each	2.00		
	80 mm dia	Each	1.00		
8)	Providing & fixing 100mm dia bourden type, Stainless steel dial type pressure Gauge (0 - 16 Kg ) range, 3 / 8 " BSP bottom entry on Pump Delivery Line complete with Ball valve	Each	7.00		
9)	Supplying and fixing air vessel made of 250 mm dia, 8mm thick MS sheet, 1200 mm. 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 a and painting with synthetic enamel paoint of approved shade as required.	Each	1.00		
10)	Providing and fixing Pressure switch in the MS pipe Line including connection etc. as required.	Each	5.00		
11)	Providing & fixing testing & commissioning of installation control valve of cast iron body and brass/bronze working parts comprising of water motor alarm, bronze seat clapper, and clapper arm, hydraulically driven mechanical gong bell to sound continous alarm when the wet riser/Sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc. of size 100 mm dia and obtaining NOC from local bodies etc required.	Each	1.00		
	SITC of floor mounted dust and vermin proof compartmentalised cubical type				
	<b>Incomer</b>				
	320 Amp. TPN MCCB (adj.O/L) with Extended ROM, 35 kA, with Thermal				
	<b>Out going</b>				
	(a) 200 Amp. TPN MCCB(adj.O/L) with Extended ROM, 35 kA, with Thermal				
	(b) 63 Amp. TPN MCCB (adj.O/L) with Extended ROM, 25 kA, with Thermal				
	(c) One no. Diesel Engine Auto Starting kit with Auto . Manual selector switch				
	(d) System controller to control Operation Main Electric pumps, Diesel pump,	set	1		
	<b>SUBHEAD-I TOTAL</b>				

	<b>SUBHEAD-II SPRINKLER SYSTEM</b>				
2.1)	Providing laying, testing and commissioning of class 'C' heavy duty MS pipe confirming to IS 3589/1239 including fittings like elbows, tees, flanges, reducer, jointing with nuts bolts, gasket and welding etc. and supports, as required and painting with tow or more coats of synthetic enamel painting of required shade complete as directed by Engineer-in-charge.				
	25 mm dia	Metre	156		
	32 mm dia	Metre	72		
	40 mm dia	Metre	66		
	50 mm dia	Metre	36		
	65 mm dia	Metre	24		
	80 mm dia	Metre	56		
	100 mm dia	Metre	551		
	150 mm dia	Metre	10		
2.2)	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories				
	Pendent Sprinkler	Each	110		
2.3)	Providing & fixing electrically operated flow indicating switches in sprinkler branch line on each floor with necessary junction box installed in accessible place (Wiring from switches to panel not included)				
	100 mm dia	Each	12		
	<b>SUBHEAD-II TOTAL</b>				
	<b>SUBHEAD-III FIRE EXTINGUISHERS</b>				
3.1)	Providing and fixing of carbon-di-oxide type fire extinguishers consisting of welded M.S. cylindrical body, squeeze lever discharge valve fitted with pressure indicating gauge internal discharge tube 30 cms long high pressure discharge hose, discharge nozzle, suspension bracket conforming to ID:15683 finished externally with red enamel paint and fixed to wall with brackets complete with internal charge.				
a)	Capacity 4.5 Kg.	Each	13		
3.2)	Providing and fixing of ABC Powder type fire extinguishers consisting of welded M.S. cylindrical body, squeeze lever discharge valve fitted with pressure indicating gauge internal discharge tube 30 cms long high pressure discharge hose, discharge nozzle, suspension bracket conforming to ID:15683 finished externally with red enamel paint and fixed to wall with brackets complete with internal charge.				
a)	Capacity 5.0 Kg.	Each	13		
3.3)	SITC OF FIRE BUCKETS (SET OF 4 BUCKETS)	Each	4		
	MECHANICAL FOAM TYPE 50 LITRES	Each	1		
3.4)	<b>SUBHEAD-III TOTAL</b>				
	<b>SUBHEAD-IV INTERNAL HYDRANTS</b>				
4.1)	Supplying and fixing single headed internal hydrant valve with instantaneous Gun metal couplings of 63mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank gunmetal cap and chain as required.	Each	24		
4.2)	Supplying and fixing first -Aid hose reel with MS construction spray painted in post office red, conforming to IS 884 with upto date amendments, complete with the following as required.				
	a) 20/30/40m long 20mm (nominal internal) dia water hose thermoplastic				
	b) 20mm (nominal internal) dia gun metal globe valve and nozzle.				
	c) Drum and brackets for fixing the equipments on wall.				
4.3)	d) Connections from riser with 40 mm dia stop valve (gun metal ) and M.S. pipe	Each	12		

4.4)	Supplying and fixing 63mm dia, 15 mtr long RRL hose pipe with 63mm dia male and female gun metal couplings duly binded with GI wire, rivets etc. confirming to IS 636 (type-A) as required.	Each	24		
4.5)	Supplying and fixing 63mm gun metal branch pipe with 20 mm (nominal internal diameter) size gun metal nozzle conforming to IS 903, suitable for instantaneous connection to interconnect hose pipe coupling as required.	Each	24		
4.6)	Supply & Fixing of Fire Man's Axe with heavy Insulated rubber tested up to 20 KV and confirming to IS :926 as required.	Each	12		
4.7)	Providing & fixing 100mm dia bourden type, Stainless steel dial type pressure Gauge (0 - 16 Kg) range, 3 / 8" BSP bottom entry on Pump Delivery Line complete with Ball valve	Each	12		
4.8)	Providing laying, testing and commissioning of class 'C' heavy duty MS pipe confirming to IS 3589/1239 including fittings like elbows, tees, flanges, reducer, jointing with nuts bolts, gasket and welding etc. and supports, as required and painting with tow or more coats of synthetic enamel paing of required shade complet as directed by Engineer-in-charge.				
	100 mm dia	Metre	48		
	80mm dia	Metre	24		
	25 mm dia	Metre	12		
4.9)	Supplying and fixing orifice plate made of 6mm thick stainless steel with orifice of required size in between flanged and landing valve of external and internal hydrant to reduce pressure to working pressure of 3.5 kg/cm complete as per specification as required	Each	12		
4.10)	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required.				
	150 mm dia	Each	0		
	80 mm dia	Each	12		
4.11)	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :				
	100mm dia	Each	12.00		
	150mm dia	Each	-		
4.12)	Providing and fixing angle iron (40mmx40mm x5mm) door frame and MS sheet (2mm thick) cum glass shutter of size 2.1 mtr. X 1.2mtr. (N.S.) with 25mmx25mmx3mm angle frame all around and stiffened in between i/c hinges, handle, locking arrangement, painting with approved synthetic enamel paint including sign writing on glass at internal hydrant including providing and fixing M.S. sheet 2 mm thick on remaining portion above door to close opening	Each	12		
4.13)	Supplying and fixing hose cabinet of size 900mmx600mmx500mm made of 2 mm thick MS sheet with 6 mm thick glazed glass doors i/c necessary locking arrangement suitable to accommodate external hydrant with butterfly valve 2 nos. 15mtr. Long hose pipe, 1 no. branch pipe mounted on wall or raised brick platform & duly painted with post office red externally and white internal with synthetic enamel paint complete in all respects for external hydrant, as directed by enginner-in-charge.	Each	12		
4.14)	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required	Each	12		
4.15)	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required				
	100mm dia	Each	12		
<b>SUBHEAD-IV TOTAL</b>					
<b>SUBHEAD-V EXTERNAL HYDRANTS</b>					

5.1)	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required				
	Single headed Stainless steel	Each	5.00		
	SITC of Hose box 900 mm x 600 mm x500 mm	Each	10.00		
	SITC of branch pipe	Each	5.00		
5.2)	Supplying and fixing 4 Way Fire brigade inlet connection of cast iron body with 4 nos. gun metal male instantaneous inlet couplings complete with cap and chain as required. For 100mm dia MS pipe connection, confirming to IS 904 as required.	Each	1		
5.3)	Supplying and fixing 4 Way Fire brigade outlet connection of cast iron body with 4 nos. gun metal male instantaneous inlet couplings complete with cap and chain as required. For 100mm dia MS pipe connection, confirming to IS 904 as required.	Each	1		
5.4)	Providing laying, testing and commissioning of class 'C' heavy duty MS pipe confirming to IS 3589/1239 including fittings like elbows, tees, flanges, reducer, jointing with nuts bolts, gasket and welding etc. and supports, as required and painting with tow or more coats of synthetic enamel paining of				
	150mm dia	Mtr.	500.00		
	80mm dia	Mtr.	20.00		
5.5)	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required.				
	150 mm dia	Each	5.00		
	80 mm dia	Each	2.00		
	<b>SUBHEAD-V TOTAL</b>				
	<b>SUB HEAD-VI: FIRE ALARM SYSTEM</b>				
6..1)	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice vacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.				
a)	6 Loop Panel	Each	1		
6.2)	Supplying, installation, testing & commissioning of intelligent analog <b>addressable photothermal detector</b> complete with mounting base complete as required.	Each	110		
6.3)	Supplying, installation, testing & commissioning of <b>response indicator</b> on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	Each	19		
6.4)	Supplying, installation, testing & commissioning of intelligent <b>addressable programmable sounder</b> complete as required.	Each	8		
6.5)	Supplying, installation, testing & commissioning of intelligent <b>addressable thermal detector</b> with rate of rise cum fixed tempreature thermistor complete with base as required.	Each	35		

6.6)	Supplying, installation, testing & commissioning of <b>addressable manual call point</b> complete as required	Each	8		
6.7)	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	Each	4		
6.8)	Supplying & laying of <b>2x1.5 sqmm fire alarm armoured cable</b> , 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	Metre	1288		
	<b>SUBHEAD-VI TOTAL</b>				-