

INDIRA GANDHI INSTITUTE OF MEDICAL SCIENCES, PATNA-14

BILL OF QUANTITY

Sl. No.01 Short Tender Notice No.Engg/102 (C&E)/2016-17

Sl. No.	Name of the Work :-	Annual Maintenance of Installed Fire Equipments at IGIMS, Patna.			
1	Estimated Cost (In Rs.) :-	9,66,300/-			
2	Earnest Money (In Rs.) :-	19,000/-			
3	Cost of B.O.Q. (In Rs.) :-	1,250.00			
4	Time of completion :- (In Days)	365 Days			
5	Last Date, time & place for submission of tender-	15/ 11/2016 up to 3:30 PM at office of the Director, IGIMS, Patna-14 through Regt. /Speed Post/Courier.			
6	Date and time for opening of tender-(Technical Bid)-	16/ 11/2016 at 3.30 PM in Conference Hall of IGIMS, Patna			
7	Date & Time for opening of Price Bid of technically Suitable bidders.	18/ 11/2016 at 3:30 PM in conference hall, IGIMS, Patna.			
Sr. No.	Description of Item	Unit	Qty.	Rate (Rs)	Amount (In Rs.)
1	Annual Maintenance Contract (AMC) of Fire Extinguishers, Fire Alarm, Smoke Detector, Glow Sign Board & Fire Hydrant System for different Hospital Building at IGIMS, Patna. Periodical inspection repairing preventive maintenance of complete system as required for following items. PART-A				
1	ABC dry powder stored pressure squeeze grip Type Fire Extinguisher, ISI Mark (IS:15683), operating temperature (+5)° C to (+55)° C for Class 2A & 21B type of Fire filled with MAP ABC Powder, Complete in all respect, Capacity – 6 Kg.	Each	146		
2	ABC Clean Agent store pressure squeeze grip Type Fire Extinguisher, filled with NAF P-IV, Complete in all respect, Capacity – 2 Kg.	Each	24		
3	CO₂ stored pressure squeeze grip Type Fire Extinguisher, ISI Mark (IS:15683), operating temperature (-30)° to (55)° C for Class 13B type of Fire, fitted with 1 Mt. Hose & PVC Horn, Complete in all respect, Capacity – 4.5 Kg.	Each	68		

4	CO₂ stored pressure wheel Type vane Fire Extinguisher, ISI Mark (IS 2878), fitted with 1 Mtr. Hose, Horn & Trolley Handle, Complete in all respect, Capacity – 6.5 Kg.	Each	15		
5	Water CO₂ Type Fire Extinguisher, ISI Mark (IS:13385), Mounted on Trolley Wheel Complete with G.M. Cap Hose, Gas Cartridge 300 Gms, Complete in all respect, Capacity – 50 Ltrs.	Each	14		
6	Mechanical Foam (AFFF) Type Fire Extinguisher, ISI Mark (IS:13386), Mounted on Trolley Wheel, Complete with 300 Gms Gas Cartridge, ISI Mark (IS:4947) and ISI Mark Refill (IS:4989) Part-II, Complete in all respect, Capacity – 50 Ltrs.	Each	3		
7	Fire Bucket, Capacity – 9 Ltr.	Each	20		
8	M.S. Fire Bucket Stand with G.I. sheet stand shade (Four bucket hanging facility in each stand)	Each	5		
9	Conventional automatic Fixed rate of rise temperature type Heat Detector, 12 / 24 volt D.C., visual alarm indicator (LED's) "Blink-Green" in stand by and "Study-Red" in alarm complete in all respect with base as required, EN / LPCB listed / approved	Each	28		
10	Conventional automatic Optical / Photoelectric type Smoke Detectors of photo-optic sensing chamber, 12 / 24 volt D.C., visual alarm indicator (LED's) "Blink-Green" in stand by and "Study-Red" in alarm complete in all respect with base as required, EN / LP	Each	732		
11	Providing, fixing, testing and commissioning of response indicators with dual LED suitable for operation on 12/24 volts D.C., sheet steel / Polymer housing suitable for surface/recess mounting including making connections with wires complete in all respect	Each	390		
12	Addressable type Manual Call Points as per specifications. The manual call point should have an indicator, which should "blink" in stand by condition. (Make : Agni Suraksha (ASES), Safeway, System	Each	87		

	Sensor or its equivalent.)				
13	Electronic Hooters housed in sheet steel / Polymer housing suitable for wall / ceiling and surface / recess mounting including making connections with wires complete in all respects and as per specifications . (Make : Agni Suraksha (ASES), Safeway, Sys	Each	72		
14	Digitally addressed having addressable features (Capable of giving individual address of each detector) Fire Alarm Control and indicating panel, microprocessor based with RS 485 communication, pulser, timer for dual stage alarm facility complete with ind				
a	4 Zone Panel	Each	1		
b	8 Zone Panel	Each	6		
c	16 Zone Panel	Each	1		
<u>Fire Hydrant System</u>					
1	AMC of M.S. Pipe heavy class including all fittings like coupling, bends, elbows, offsets, blind flanges, plugs, tees, flanges, etc. welding joints (all type) as required, supports, cutting holes and chases in brick or RCC walls or floors, with painting and making good complete. Pipes should be welded joint (all type), Pipes conforming to I.S.:1239				
	a. 80 mm dia.	Mtr.	12		
	b. 100 mm dia.	Mtr.	130.92		
	c. 150 mm dia.	Mtr.	145.01		
2	AMC of S. S. Landing Valve (hydrant valve) conforming to IS:5290 with 63 mm dia instantaneous female coupling on the outlet blank cap and chain necessary companion flanges, nuts, bolts, washer and gasket complete as per specification. (ISI marked), Single Outlet.	Nos.	20		

3	AMC of First aid fire hose reel wall mounting swinging type fitted with 20 mm dia x 30 m long high pressure hose with PVC shut-off nozzle conforming to IS:884-1969	Nos.	20		
4	AMC of 63 mm dia 15 mtr. Long Rubberized fabric lined hose (RRL) including G.M. male and female instantaneous type coupling, machine wound with copper wire complete in all respects. Hose shall confirm to IS:636 Type A (ISI marked)	Nos.	40		
5	AMC of standard short size S. S. Short Branch Pipe with nozzle 16 mm dia outlet with standard instantaneous type 63 mm dia Male coupling. (ISI marked)	Nos.	20		
6	AMC of Fire hose cabinet fabricated from M.S. Sheet with single or double front door and locking arrangement, Red painted including suitable supports to place 900 mm above ground level, approximately size 30+x 24+x 10+(to house two length of canvas hose with couplings & branch pipe for external / internal hydrants)	nos	20		
7	AMC of cast iron dual plate wafer type Non return valves of PN. 1.0 including nuts, bolts. 1.5 mm thick compressed asbestos gasket including matching flanges etc. complete.				
a	80 mm dia.	Nos.	2		
b	100 mm dia.	Nos.	3		
c	150 mm dia.	Nos.	2		
8	AMC of C.I. Butter fly valves PN 1.0 complete with bolts, nuts 1.5 mm thick compressed asbestos gasket companion flange etc. complete.				
a	80 mm dia.	Nos.	2		
b	100 mm dia.	Nos.	3		
c	150 mm dia.	Nos.	2		

9	AMC of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45°C temperature, working pressure 8.8 kg/cm ² and test pressure of 14 kg./cm ² for :-.				
	· 80 mm dia.	Nos.	1		
	· 100 mm dia.	Nos.	1		
10	AMC of C. I. Two way Fire brigade inlet breaching head as per IS:904 specification tested for 20 kg/cm ² with 63 mm dia instantaneous type inlet and 150 / 100 mm dia flanged outlet with built-in check valve for Fire brigade connection to fire risers including companion flanges, including nuts, bolts & washers etc.	Nos.	2		
11	AMC of dial type Pressure gauge IPS 100, with isolation cock and copper pipe at hydrant point	Nos.	21		
12	AMC of dial type Pressure gauge and pressure switch IPS 200, with isolation cock and copper pipe at hydrant station and hydrant point	Set	1		
13	Providing & fixing M.S. 150 mm dia. Air cushion tank with air release valve, complete in all respect.	Nos.	1		
14	AMC of heavy duty PVC insulated, PVC Armored aluminum conductor cable including necessary support clamps and connection lugs complete in all respects.				
	a) Power Cable 4 core x 25 Sqmm	Mtr.	129.8		
15	Terrace Pump : Supplying and fixing Kirloskar make horizontal end suction Pump, Model : DB . 50/16 with Bronze Impeller, S. S. Shaft head, 3 Phase 415 Volt TEFC AC Motor, Mechanical Seal coupling & Base plate AVM Pads				

	<p>a. Capacity : 900 L.P.M.</p> <p>b. Head : 35 Mtr.</p> <p>c. HP : 12.5 HP</p> <p>d. RPM : 2900</p>	Nos.	1		
16	AMC of dust & vermin proof cubicle type Motor control panel fabricated form powder coated 18 SWG MS sheet complete with incoming main MCCBs, fully taped aluminum bus bar, volt meter, rotary selector switch for reading voltage between phases. Amp. Meter with selector, 3 phase indication light, 3 phase preventions of suitable, auto / manual off selector, color coded internal wiring form main to bus bar, complete in all respect.				
	Panel for Terrace Fire Pump	Nos.	1		
17	AMC of of PVC Water Tank of Capacity . 2000 Ltr., complete in all respect.	Nos.	12000		
18	AMC of of G.I. Tata pipe for filling water in PVC Water Tank, complete in all respect :-				
A	· 50 mm dia.	Mtr.	13.20		
B	· 40 mm dia.	Mtr.	33.00		
18	AMC of gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
a	40 mm nominal bore	each	1		
b	50 mm nominal bore	each	1		
19	AMC of ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
	25 mm nominal bore	each	10		

PART-B

C.) Fire Extinguishers Refilling Rate :-

2	Refilling of ABC dry powder stored pressure squeeze grip Type Fire Extinguisher, ISI Mark (IS:15683), operating temperature (+5)° C to (+55)° C for Class 2A & 21B type of Fire filled with MAP ABC Powder, Complete in all respect, Capacity . 6 Kg.	each	25.00		
4	Refilling of CO2 stored pressure squeeze grip Type Fire Extinguisher, ISI Mark (IS:15683), operating temperature (-30)° to (55)° C for Class 13B type of Fire, fitted with 1 Mt. Hose & PVC Horn, Complete in all respect, Capacity . 4.5 Kg.	each	68.00		
5	Refilling of CO2 stored pressure wheel Type vale Fire Extinguisher, ISI Mark (IS 2878), fitted with 1 Mtr. Hose, Horn & Trolley Handle, Complete in all respect, Capacity . 6.5 Kg.	each	15.00		
6	Refilling of Water CO2 Type Fire Extinguisher, ISI Mark (IS:13385), Mounted on Trolley Wheel Complete with G.M. Cap Hose, Gas Cartridge 300 Gms, Complete in all respect, Capacity . 50 Ltrs.	each	14.00		
7	Refilling of Mechanical Foam (AFFF) Type Fire Extinguisher, ISI Mark (IS:13386), Mounted on Trolley Wheel, Complete with 300 Gms Gas Cartridge, ISI Mark (IS:4947) and IS Mark Refill (IS:4989) Part-II, Complete in all respect, Capacity . 50 Ltrs.	each	3.00		
PART-C					
Providing and Fixing of fire Extinguishers Accessories Rate :-					
8	Safety Lock for fire extinguishers	each	120.00		
9	Discharge horn for CO2 fire extinguishers	each	8.00		
10	Discharge pipe for CO2 fire extinguishers	each	8.00		

11	Discharge pipe for ABC dry powder fire extinguishers	each	15.00		
12	Wall Bracket for portable fire extinguishers	each	25.00		
13	Trolley for CO2 fire extinguishers	each	3.00		
14	Trolley for Water CO2 & Mechanical Foam 50 Ltrs. Capacity fire extinguishers	each	3.00		
15	Discharge pipe for Water CO2 & Mechanical Foam 50 Ltrs. Capacity fire extinguishers	each	4.00		
16	Squeeze grip valve for ABC & Clean Agent fire extinguishers	each	20.00		
17	Valve for CO2 fire extinguishers	each	8.00		
18	Smoke Detector & Fire Alarm System Rate :-				
19	Conventional automatic Optical / Photoelectric type Smoke Detectors of photo-optic sensing chamber, 12 / 24 volt D.C., visual alarm indicator (LED's) "Blink-Green" in stand by and "Study-Red" in alarm complete in all respect with base as required, EN / LPCB listed / approved. (Make : System Sensor)	each	10.00		
20	Conventional automatic Fixed cum rate of rise temperature type Heat Detector, 12 / 24 volt D.C., visual alarm indicator (LED's) "Blink-Green" in stand by and "Study-Red" in alarm complete in all respect with base as required, EN / LPCB listed / approved (Make : System Sensor)	each	2.00		
21	Addressable type Manual Call Points as per specifications. The manual call point should have an indicator, which should "blink" in stand by condition .				
22	(Make : Agni Suraksha –ASES or equivalent)	each	10.00		
23	Electronic Hooters housed in sheet steel / Polymer housing suitable for wall / ceiling and surface / recess mounting including making connections with wires complete in all respects and as per specifications . (Make : Agni Suraksha -ASES)	each	6.00		

24	Response indicators with dual LED suitable for operation on 12/24 volts D.C., sheet steel / Polymer housing suitable for surface/recess mounting including making connections with wires complete in all respects. (Make : Agni Suraksha - ASES)	each	10.00		
26	Supply, Installation, Testing & Commissioning of 25 mm dia. PVC Conduit pipe ISI marked, complete with all fittings viz. Tees, Bends, Junction Boxes, Clamps / Supports etc. to be concealed in slabs / brick work as required or surface laid.	each	50.00		
28	Supply, Installation, Testing & Commissioning of Solid copper, conductor, PVC insulated ISI marked twin core FRLS wire :				
30	2 x 1.5 sq mm	Rmt.	50.00		
31	4 x 1.5 sq mm	Rmt.	25.00		
32	P/F self illuminated / auto glow "EXIT" & "FIRE EXTINGUISHERS" signs printed on photo luminescent sheet containing self illuminated base chemical, of appropriate size not less than 300 x 150 mm, suspended from ceiling or fixed to the walls with accessories as required and as directed at site.	each	25.00		

Quoted Rates:

NOTE:-

Contractors are requested to quote their rates Item wise rate for each item.

- 1- Issued to :
- 2- Full postal address :-
- 3- Earnest money deposited :-
- 4- Registration No. :-
- 5- Time of completion :-

Signature of Contractor

Superintending Engineer
I.G.I.M.S., Patna