

GOVERNMENT OF ARUNACHAL PRADESH
DIRECTORATE OF FIRE & EMERGENCY SERVICES
ITANAGAR

No.DIR/F&ES/QM-163/15th FC/25

Dated Itanagar the 01st Aug'2025

// TENDER NOTICE //

Sealed tender under two bid systems are invited from manufacturers/ authorized dealers/agents/suppliers of reputed firms for entering into contract for supply of Fire Fighting, Rescue and other Equipments in the State of Arunachal Pradesh Fire & Emergency Services during the year 2025-26. Tender will be received upto 1600 hrs on 20/08/2025 and will be opened on 21/08/2025 at 1130 hrs. The tenderers or their representatives may remain present at the time of opening of tenders.

The tender papers containing full details with Specification and Terms & Conditions can be obtained from Directorate of Fire & Emergency Services, Ganga, Itanagar on any working day during office hours w.e.f. 02/08/2025 to 20/08/2025 on payment of Rs.1,000/-(Rupees one thousand) only (non refundable) as tender fee through Bank Draft in favour of Superintendent of Police, Fire & Emergency Services, Itanagar, Arunachal Pradesh payable at SBI Itanagar. It may also be downloaded from website www.arunpol.nic.in. The tenderer downloading tender papers from website will also required to be submitted tender fee Rs.1,000/-(Rupees one thousand) only (Non refundable) along with tender documents.

Incomplete tenders are liable to be rejected.



Director
Fire & Emergency Services
Arunachal Pradesh
Itanagar

NOT TO BE PUBLISHED

Memo No.DIR/F&ES/QM-163/15th FC/25

Copy to:

Dated Itanagar the 01st Aug'2025

1. The I/c Computer Cell, PHQ Itanagar may upload the Tender Notice, Terms & Conditions and list of equipments with Specifications in the website of Arunachal Pradesh Police www.arunpol.nic.in.
2. Notice board.
3. Office copy.



Director
Fire & Emergency Services
Arunachal Pradesh
Itanagar

GOVERNMENT OF ARUNACHAL PRADESH
DIRECTORATE OF FIRE & EMERGENCY SERVICES
ITANAGAR

NO.DIR/F&ES/QM-163/15th FC/25

Dated Itanagar the 01st Aug'2025

TERMS AND CONDITIONS

1. The Director General of Police, Arunachal Pradesh, Itanagar invites sealed tender under two bid system from the manufacturers/authorized dealers/agents/ for supply of Equipments details at Annexure-A.

Sl.No.	Description of items to be procured	Approx Cost of Tender	Earnest money required	Tender Fee (Non Refundable)
I	Fire Fighting, Rescue and other equipments Annexure-A	Rs.12,77,00,000/-	Rs.25,54,000/-	Rs.1,000.00

2. The sealed tender will be received upto 1600 hrs on 20/08/2025 and will be opened on 21/08/2025 at 1130 hrs.
3. The Tender documents should be submitted in two covers clearly subscribed NIT No. & dated indicating the contents inside the envelope.

Cover-'I':-Technical Bid- It shall contain scanned copies of eligibility information as under:

- Technical bid along with its specifications leaflet, brochure/literature, if any, of each tendered item.
- Tender documents duly completed and signed BUT without indication of the rates "Quoted".
- Earnest Money must be attached in form of TDR/FDR/Demand Draft/NCS/KVP etc of Nationalized Bank/Post offices duly pledged in favour of **the Superintendent of Police, Fire & Emergency Services, Itanagar, Arunachal Pradesh**. The tenderers registered under Micro Small & Medium Enterprises (MSME), Small Scale Industries (SSI) are exempted from pledging Earnest Money. They must submit copy of registration certificate of MSME.
- The Tenderer has to be submit the 2% of the Earnest money of every quoted items.
- Attested copy of PAN.
- Attested copy of firm registration.
- Attested copy of last three years Income tax return of the firms.
- Valid Trading license issued by competent authority for the tendered items.
- Letter of authority in respect of authorized distributors/dealership
- Financially soundness certificate/C.A. Certificate.
- Any other document which is not related to tender should not be submitted.

l) All the tender papers must be serialized/ numbered properly and index/check list be placed at the beginning of the tender papers indicating the pages of the relevant documents else shall be summarily rejected.

m) Technical compliance statement should be enclosed along with technical bid clearly specifying deviation, if any for all specifications mentioned in the tender.

n) Technical and Financial Bid should be submitted in two different envelop.

Cover-'II' Financial Bid- It shall contain documents on Financial Bid. It shall be opened/ entertained only in respect of the items will be found technically qualified by the Committee/ Board.

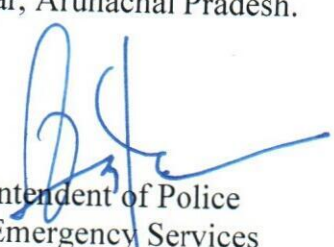
GENERAL INSTRUCTIONS:-

1. The tenders received after scheduled date and time will not be entertained. The tenderers or their representatives may remain present at the time of opening of tenders.
2. Tender should be typed or hand written clearly in block letters. All literature or correspondence in connection with Tender shall be made in English.
3. Tenders must be legible and clear in all respect else it shall be liable to be rejected.
4. Overwriting or cutting in the tender documents will be summarily rejected.
5. The Tenderer/Firms fail to fulfill the eligibility criteria will be summarily rejected.
6. Tender will not be accepted unless properly sealed with LAC SEALING WAX. Tender sending through postal/courier shall reach to the addressee in good condition and within due date. Tender in torn condition and after expire of last date will not be accepted.
7. The separate sealed envelope containing tender documents should be subscribed as **"TENDER FOR SUPPLY OF FIRE FIGHTING, RESCUE AND OTHER EQUIPMENTS"** and sent to **the Superintendent of Police, Fire & Emergency Services, Ganga, Itanagar, District-Papumpare, Arunachal Pradesh, Pin-791113** or drop in the Tender Box on any working day from 0930 hrs to 1600 hrs. Tenderer should write his full address at the bottom of the left side of envelope.
8. The tender papers containing full details with specifications and Terms and Conditions can be obtained from Directorate of Fire & Emergency, Ganga, Itanagar on payment of tender fee Rs.1000.00 (Rupees one thousand only) (Non-refundable through a Bank Draft in favour of Superintendent of Police, Fire & Emergency Services, Arunachal Pradesh, Itanagar payable at State Bank of India, Itanagar) on any working days from 0930 hrs to 1600 hrs. The tender documents may also be downloaded from website www.arunpol.nic.in. The tenderers downloading the documents from the website are also required to submit a bank draft of Rs.1000/- as tender fees. No other mode of payment will be accepted.

9. The successful Tenderer will be required to deposit 5% of the total value of the articles to be supplied as performance security money within 10 days from the date of issue of letter of acceptance of tender. And tenderer will have to enter into a "DEED OF AGREEMENT" stipulating terms & conditions of the contract. Security deposit will be subject to forfeiture in case of non fulfillment of any or all the Terms and Conditions of the contract. The 2% of Earnest Money of successful tenderer will be forfeited to the Government in case of failure to furnish security money and execution of "DEED OF AGREEMENT".
10. Liquidated damages will be charge for delay in delivery of equipments or performance of services will be liable for as under;
 - (i) For first 30 days @ 1% of the value of goods.
 - (ii) For nest 60 days @ 2% of the value of goods.
 - (iii) For delay of 2 months/over & up to 4 months @ 4% of the value of goods.
 - (iv) Beyond 4 months and up-to 6 months @ 5%, of the value of the goods and on expiry of 6 months the contract would automatically get nullified and bank guarantee would be invoked.
11. Rates should be quoted F.O.R Directorate of F&ES, Itanagar. Rates quoted other than F.O.R Directorate of F&ES, Itanagar shall not be accepted.
12. The rate of GST(as applicable) should be quoted by the tenderers and the GST% and amount be clearly mentioned for all items, else shall be summarily rejected.
13. The Rates should be quoted in Indian currency both in figure as well as in words.
14. In case tender opening date is declared holiday or bandh call at Itanagar, the tender will be opened on next working day at 1130 hrs.
 - (a) The bidder should keep checking the website for any addendum/corrigendum to the notice/bidding documents till the date of submission of bids and the bidder should incorporate the same in his bid documents.
 - (b) Conditional bids and the bids not meeting the qualifying criteria on the date of receipt of bids shall be summarily rejected.
 - (c) Before submission of bids bidder must ensure that the scanned copies of all necessary documents have been attached with bid.
 - (d) All the required information for the bid must be filled and submitted.
15. The sample of the equipments/items have to be produced before Committee/Board by the tenderers/firms qualified during technical evolution.
16. Technical bid along with its specification leaflets, brochure & catalogue must be submitted
17. The successful tenderers shall conducted demonstration/ training of the items at the time of acceptance before the Board Members. The items not found as per specifications shall be rejected.
18. Any breakage or loss of any item will be at the supplier's risk.



19. Delivery of the stores will have to be completed within 45 days from the date of issue of supply order. In case of failure to supply the items in time, violation of any provision of Deed of Agreement, the firm is liable to be blacklisted.
20. If any item is found damaged or otherwise unacceptable at the time of delivery/inspection, the supplier should remove the same from Directorate of Fire & Emergency Services, Itanagar at their own cost and replacement should be provided within 10 days.
21. Payment will be made directly to the supplier on completion of supplies and on receipt of stores. TDS/Income Tax against will also be deducted from the bill. No advance payment will be made.
22. List of equipments/items with description and specification is enclosed at Annexure-A. The quantities may be variation as per actual availability of funds.
23. Bidder must have submitted original Authorization Certificate directly from Original Equipments Manufacturer (OEM). The e-mail and contact number must be written in OEM Certificate. The submission of OEM Certificate by the 3rd party will summarily rejected.
24. Turnover of the Bidder at least 3 crores during the last three financial year.
25. The Bidder who had been black listed by tender inviting authority or by any state which has to be notarized or central government will not be eligible to participate in the tender.
26. Attested copy of firm GST Registration. Bidder shall furnish GST return Challan.
27. The Bid shall be accompanied with an affidavit on Rs.100 stamp paper confirming 100% technical complaint as well as all the documents submitted.
28. All items to be supplied shall be covered under warranty. The equipment/ items develop technical fault during the warranty period should be repaired or replaced by the tenderer free of cost. The availability and after sales support of spare parts of equipments should be 5(five) years.
29. The supply order will be given to the successful tenderer as per availability of fund.
30. The Director General of Police, Arunachal Pradesh, Itanagar reserves the right to reject the lowest or all or any of the tenders without assigning any reason thereof.
31. In case of any dispute, legal jurisdiction shall be at Itanagar, Arunachal Pradesh.


Superintendent of Police
Fire & Emergency Services
Arunachal Pradesh
Itanagar

LIST OF FIRE FIGHTING, RESCUE AND OTHER EQUIPMENTS.

Sl.No.	Name of Items with Specification
1	<p align="center">BA Sets – 105 Nos.</p> <p><u>SELF-CONTAINED COMPRESSED AIR BREATHING APPARATUS (SCBA) & ACCESSORIES</u></p> <p>I. Features:</p> <ol style="list-style-type: none"> Breathing Apparatus with min. 45 minutes duration, 6.8 Ltr. water capacity, 300 bar nominal pressure carbon composite cylinders approved and certified to use for Firefighting Operations. Single Light weight cylinder configuration <p>II. Approvals:</p> <ol style="list-style-type: none"> Approved and Certified to EN 137: 2006, Type 2 for use in Firefighting. (Certificate shall be as per new Regulation EU 2016/425). EN 137 Approval should also include Cylinder & Cylinder Valve Quality Assurance Certificate as per Annex. VIII Module D (EU 2016/425). PESO, Nagpur approval for carbon composite cylinders <p>III. Weight:</p> <ol style="list-style-type: none"> The total weight of the entire set should not exceed approximately 12 kg. <p>IV. Face Mask</p> <ol style="list-style-type: none"> Compliance to EN 136 and should be manufactured out of EPDM with double reflex sealing for extra protection. Low exhalation resistance Adjustable five points head strap for rapid donning Close fitting oral/nasal mask to ensure no CO₂ build-up Self-demisting polycarbonate visor for clear vision with Anti-Scratch Properties. Replaceable visor with wide field of vision. A speech transmission diaphragm is required to provide back up in the event of battery or communication unit failure Perspiration drain to avoid skin irritation Spring loaded respiratory valve Easy & quick fitting plug-in connection to Lung Demand Valve. Body - EPDM Harness – 5 point connection Approval – EN 136, CLASS 3 <p>V. Lung Demand Valve:</p> <ol style="list-style-type: none"> The lung demand valve should be detachable and is connected to the facemask, by PUSH-IN mechanism from the front side of the facemask and should be capable of delivering 550 lpm of air 4-10 mbar first breath activation pressure, low breathing resistance Should maintain positive pressure even at 10 bar and 300 lpm. <p>VI. Back Plate Assembly:</p> <ol style="list-style-type: none"> The back plate should be orthopedically and ergonomically designed and should be moulded from glass filled polyamide along with carbon fibre and nonmetallic for resilience and strength. It should be attached securely to the waist belt assembly and should ensure that weight of the apparatus is concentrated on the hips. Should be chemical, heat and flame resistant, lightweight, water resistant, incorporating molded carrying handles. The back plate shall allow air circulation between the cylinder and the wearers back. Should have rubber boot at the bottom end to absorb impact and prevent damaged Should be warranted for life long Should have Anti-Vibration Strap to prevent accidental loosening of cylinder from back plate while in transportation/ storage in ready-to-use condition.

- h. **Hose channels integrated in to back plate**
- i. Quick release mechanism on shoulder pads and waist belt
- j. The Shoulder Strap should be detachable for easy maintenance and Servicing.

VII. Cylinder Strap:

- a. The cylinder strap should be made out of fire retardant material, capable of accommodating 300 bar as well as 200 bar and all common BA set cylinders.
- b. It should have a fail-safe camlock type locking mechanism

VIII. Webbing Harness:

- a. Should be made from strong, heat and Chemical resistant material and should not be riveted or welded.
- b. The harness should pass through the back plate through tailor made slots
- c. Harness shall be comfortable with padding (it shall not be a woven fabric without padding).
- d. The harness webbing shall be constructed of a strong, hard wearing type material. The webbing must be inherently flame retardant so that cleaning processes will not remove the inherent flame retardant properties.

IX. Pressure Reducer:

- a. The pressure reducer should be small, sturdy and tamper proof encapsulated type with high air delivery and should be capable of delivering up to 1000 lpm. of air.
- b. The pneumatic system shall be easy to detach from the back plate and harness.

X. Gauge & warning Whistle:

- a. Pneumatic pressure gauge shall be fully luminescent.
- b. The low pressure whistle warning device shall be integrated into the pressure gauge hose close to the gauge.
- c. The pneumatic gauge shall be encased by a protective rubber cover.
- d. The pneumatic gauge shall be located over the left shoulder (close to ear).
- e. Whistle shall activate at a pressure of 55 ± 5 bar cylinder pressure.

XI. Operational Features:

The equipment shall have following operational features:

- a. Breathing apparatus must seamlessly integrate and interface with the face mask, Warning equipment and head protection to create a high performance personal safety system.
- b. It shall be equipped with compression molded comfort padding to ensure high temperature performance.
- c. High grip anti-slip surface to ensure the harness remains in position and the set remains secure on the body. A quick release mechanism on both the waist belt and shoulder harness to permit quick and easy detachment for easy cleaning and maintenance.
- d. Ergonomic design to ensure that the firefighter can carry out the task at hand safely and effectively and with minimum effort.
- e. Durability and safety: Equipment to work in hostile environments where they are exposed to extreme temperatures and/or chemicals.
- f. Care and maintenance: Simple and easy maintenance / quick turnaround times in the workshop and easy cleaning and decontamination and quick assembly and disassembly of all major components.

XII. Cylinder Valve:

- a. The cylinder valve should be provided with spring-loaded type to avoid accidental closing and fitted with Excess Flow Valve (EFV).
- b. The manufacturer should provide the EN 144 & PESO Approval for the Cylinder valve.

XIII. Cylinder Axis:

- a. The axis of the cylinder valve should be parallel to the axis of cylinder

XIV. Cylinder:

- a. Construction : More than 45 minutes duration Carbon Composite Cylinders approved by PESO, Nagpur.
- b. Diameter : 140 mm.
- c. Water Capacity : 6.8 Ltrs.
- d. Charging Pressure : 300 bar
- e. Life of the cylinder shall be a minimum of 20 years.

XV. Warranty:

- a. Twelve months on system and components from the date of supply/commissioning.

Certificates & Approvals Required:

- b. Cylinder inspection certificate.
- c. Cylinder valve certificate & NOC from the Department of Explosives PESO.
- d. Certificate of conformity to standards.
- e. Import certification/ documents.
- f. EN 137 Type 2 certificate (as per new regulation EU 2016/425).
- g. EN 136 Class 3 for Face Mask
- h. Quality Assurance Certificate as per Annex 8 Module D of EU 2016/425.

XVI. After Sales Service:

- The Supplier should have PESO Approved Latest Hydrostatic testing and re-filling Facility to be able to support the after sales supply.

XVII. Receipt of following Certificates from Approved laboratory:

- a. Approved to EN 137: 2006, Type 2 (as per EU Regulation EU 2016/425)
- b. Fullface Mask Approved to EN 136 Class 3
- c. Quality Assurance Certificate as per Annex VIII Module D or EU 2016/425.
- d. EN 144 & PESO approval for cylinder valve.
- e. PESO Nagpur approval for carbon composite cylinders.
- f. PESO, Nagpur Approval Certificate for Hydro testing an Refilling Facilities in India.

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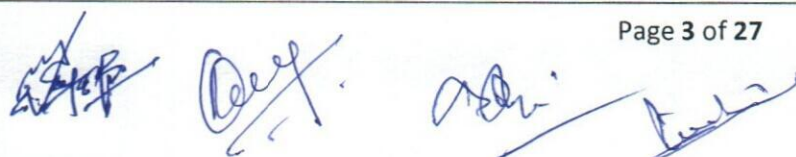
Thermal Imaging Camera -02 Nos.

General Specification

- I. The Thermal Imaging Camera shall be hand held and easily transferable between fire fighters without the removal of protective clothing
- II. The camera shall remain operational after submersion in water as per IP67 water ingress test.
- III. The thermal imaging camera should be lightweight weighing less than 800 grams
- IV. The camera shall be of compact and dimensions not exceeding 8 x 6 x 5 inches (LxWxH)
- V. The camera shall be ergonomically designed and the outer casing be manufactured

Performance

- a. The camera shall use a detector capable of sensing and imaging infrared in the 8 – 14 micron spectral wavelength range.
- b. The camera shall use a Amorphous Silicon (ASi) detector of 160 x 120 pixels or higher
- c. The camera should be automatic in nature without requiring need for adjustments/ focus setting etc
- d. The camera must have the ability to capture, store and download to a laptop/PC minimum 50 images in viewable format. The end user should be able to save download these images onto a PC by simple connection with a USB port.
- e. The camera shall have the ability to provide color mode thermal imaging in at least two modes like fire-fighter color mode and overhaul mode to facilitate prompt and clear detection of fire and heat



- f. The camera shall have the ability to provide reading for both Spot Temperature as well as live ambient temperature
- g. The camera shall have the ability to provide digital zoom to x 2
- h. The camera shall have an option for removable germanium lens for long term serviceability and long life maintenance serviceability
- i. The Camera should be able to start promptly within 6 seconds
- j. The camera shall have a single on/off button, with delayed off to prevent accidental powering off.
- k. The camera should be able to operate for a period of 4 (four) hours using standard Ni- MH rechargeable batteries/ Pack or 2 hours using regular AA batteries under nominal conditions
- l. The camera should be able to show the time and date at the top of the viewing area.
- m. The camera shall have a minimum 2.5 inch LCD display to allow multi-user viewing.

Accessories

- i. The camera shall be supplied with 1 rechargeable NI-MH batteries, 1 AA cell battery pack, Truck mounted battery charger, neck strap, manual and PC interconnection lead as standard.
- ii. The camera will be supplied in a padded, reusable carrying case, which can contain all the accessories supplied with the camera.

Warranty

- The camera supplied, including supplied standard accessories, shall be warranted for a minimum of 2 (two) years from date of delivery to the end user.

Quality Assurance

- The manufacturer shall be accredited to ISO 9001 to ensure alquality, manufacturing and design systems are being met. The manufacturer shall be accredited to the Environmental Certification ISO 14001 to maintain all end of use devices are dealt with in the correct manner.

Components

- The Thermal Imager Set should be supplied complete with the following:-a) Thermal Imaging Camera 1. b) Rechargeable Battery Pack 1. c) AA Battery Pack 1. d) Battery Charger 220V AC 1. e) Harness/ shoulder strap 1. f) Instruction Manual 1. g) Carrying Case/ Soft Bag 1

3	Harness – 10 Nos.
I. Material: Nylon II. Type: Full body harness III. Color: Red/Yellow IV. Gender: Unisex V. Weight: 2.24 kg. VI. Capacity: 150 kg. & Hook option: Scaffolding	
4	Stretcher – 10 Nos.
<u>Stretcher Spine Board</u> I. Weight-7.5kg, Load capacity -159kg. II. Length 184cm, width-45mc, height-7cm. Or I. Rescue Basket stretcher DESCO mild steel Basket stretcher II. Frame Material: Hard plastic/ steel III. Weight-7.5kg, Carrying capacity: 159 kg IV. Length 184cm, width-45mc, height-7cm. V. Colour: Orange, Shape: Rectangular	

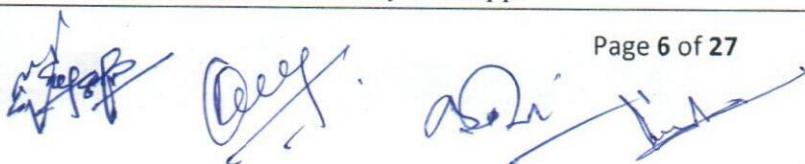
5	Delivery Hose - 22 Nos.
	<ul style="list-style-type: none"> • Type 2 fire hose of 63mm Diameter should be a non-percolating light weight Fire Hose, completely made up of high tenacity polyester yarn with EPDM rubber inner lining for low-friction-loss and outer elastomeric coating for its protection against mild-dew, moisture and some kinds of oil. • The hose shall be fitted with 63 mm delivery hose couplings (see IS: 903 -1975). • The hose should be 15 mtrs in length. Should be approved & listed under UL-19 (U.S.A) and IS 636 Type - 2, CE marked with Working Pressure of 18 bar, Proof Pressure of 28 bar and Burst Pressure of 42 bars. • OEM authorisation, along with the certificate, shall be attached with the bid.
6	Pistol Grip Fire Fighting Nozzle -04 Nos.
	<ul style="list-style-type: none"> • Flow rate capacity- 200-250-350-475-600LPM • Construction Material- Hard anodized aluminium • Warranty Period- 1 year • Hand held Nozzle Pistol Grip Type-Hand held Nozzle pistol grip type device, Light Weight designed to throw water in form of Jet, Fog & curtain to defuse Fire • Flow rate capacity- 200-250-350-475-600LPM • Flow Pattern Jet Spray and Fog Pattern • Calibrated Flow rate-Selectable through Index Ring & Maximum rate is indicated by raised lug. • Stream Pattern- Can be changed by rotating the defuser head rings with tactile marking. • Flush Feature- For flushing any small foreign items. • Construction Material- Hard anodized aluminium Head bumper guard, handles cover-Polyurethane Shut off ball-Heavy-duty chrome plated metal shut off ball Seat- Self-adjusting Teflon seat Screws & Axles-Stainless steel Teething-Turbine teeth for better fog • Working Pressure 7 bar, Straight stream Yes, Stream pattern adjustment- By rotating head ring
7	DCP Fire Extinguisher (6 Kg) – 18 Nos.
	<ol style="list-style-type: none"> Conformity to IS 15683 (latest) Plunger type. Type- Cartridge type Extinguisher media- Powder Expellant Medium- CO2 cartridge based Capacity- 6 Kgs, Brand: Best quality Warranty- 1 year.
8	Water Type Fire Extinguisher (9 litres) – 18 Nos.
	<ol style="list-style-type: none"> Conformity to IS:15683 (latest) Plunger type. Type-Cartridge type Extinguishing Media- Water Based Expellant Medium- CO2 cartridge based Capacity- 9 liters Brand: Best quality Warranty- 1 year
9	Mechanical Foam Fire Extinguisher (9 ltrs) 18 Nos.
	<ol style="list-style-type: none"> Conformity to IS 15683 (Latest) Plunger type. Type-Cartridge type Extinguishing Media- Water Based Expellant Medium- CO2 cartridge based Capacity- 9 liters Brand: Best quality Warranty- 1 year

10	Co2 Fire Extinguisher (4.5 Kg) - 10 Nos.
	I. Duly Charged as per 15683 (latest) II. Capacity – 4.5 Kgs. III. Extinguishing Media- CO2 Based IV. Brand: Best quality V. Warranty- 1 year.
11	ABC type dry Powder Fire Extinguisher 6kg. – 10 Nos.
	I. Conformity to IS 15683 (latest) II. Capacity : 6 Kgs stored pressure III. Brand: Best quality & Warranty- 1 year.
12	FB- 5x with Accessories – 09 Nos.
	As per IS: 2097: 2012
13	FB-10X with Accessories- 05 Nos.
	As per IS: 2097: 2012
14	Mechanical Foam generator – 01 No.
	I. <u>Foam Generator MFG5:</u> a. Aluminium alloy, having 63mm male instantaneous inlet & 63mm female instantaneous outlet, 225 LPM foam-water capacity at 7kg/cm ² , complete with pick-up tube & Nozzle. Foam Generator-MFG-10: b. Alluminium alloy having 63mm male inst. inlet and 100mm threaded Female outlet, 450 LPM foam-water capacity at 7kg/cm ² , complete with pick-up tube & a dividing breaching having 100mm male threaded to two 63mm female inst. connections with nozzle.
15	Mechanical Foam(AFFF) – 540 Ltrs.
	I. Operating Temperature: +5 Degree C to + 60 Degree C II. Usage/Application: Heat insulation, Foaming Agent type: Protein Based III. Physical State: Liquid-20 Ltrs.
16	Hydraulic Rescue Tools (Cutter, Spreader, Combi tools etc) -25 Nos.

TECHNICAL SPECIFICATIONS FOR HYDRAULIC RESCUE TOOLS

I. GENERAL REQUIREMENT:

- The Hydraulic Rescue tools shall be portable and light-weight and shall be suitable to use by one man. The Hydraulic Rescue tools shall be supplied in set form, consist of main equipment like spreader, cutter, telescopic ram, Combi tool and hoses, power pack, hand pump along with all the accessories.
- The Hydraulic Rescue tools and its accessories shall comply with all the requirements stipulated under EN 13204 or NFPA 1960 or equivalent national / international standards.
- All pressure hoses shall have a safety factor of not less than 4 times the maximum working pressure. All hoses shall be non-kinking one hose system.
- All tools, hoses and pumps shall be equipped with compact, non-drip quick-connect couplings fast and easy connection. All female couplers shall be equipped with automatic self-locking to prevent accidental disconnecting. The couplers should have 360 degrees free movement for the easy of uncoiling.
- The hydraulic rescue tools shall be designed to withstand a test pressure of two times their maximum working pressure. Each tool has to comply with the European CE safety standards and European Norm EN 13204 and NFPA 1960. For all tools the EN 13204 and NFPA 1960 approval certificates must be submitted with the offer by the supplier. For the Lifting bags EN 13731 approval certificate must be submitted with the offer by the supplier



- f. All tools shall be provided with integrated LED lights at suitable location for better visibility during operation at night or in dark areas.
- g. Hydraulic rescue tools shall be provided with, double acting hydraulic cylinder with a deadmans type control (No twist or push button control) and shall be operable easily with one hand by the operator in any position.
- h. The tools shall be provided with Coaxial hose having pressure line and return line within one hose.
- i. All hydraulic tools, pumps, hoses and accessories would be fully operational for longer periods at temperatures of -20 up to + 55° C.
- j. The tools shall be supplied with proper operation / safety instruction manuals, according to the CE standards. Operation and safety instructions shall be on the tools and shall be in pictogram style so that they shall be understood by all operators easily.

TECHNICAL SPECIFICATION OF TOOLS

II. SPREADER

- a. The spreader shall be double acting hydraulically operated device of light weight construction and should be capable of spreading, squeezing and pulling with the combination of chains.
- b. The spreader shall be provided with spreading tips made of fully hardened, high tensile tool steel with proper serrations outside and inside for a perfect grip during spreading as well as squeezing operation. The tips shall be mounted on the spreader arms by means of a quick locking system. This quick lock system shall provide the possibility to change the spreading tips for pulling adaptors single handed, without loose parts and without the need for extra tools.
- c. The spreader shall have following specifications:

Max. Spreading distance	Not less than 820 mm
Min. Spreading force measured at 25 mm from the tips as per EN 13204	Not less than 60 kn
Max. Spreading force	Not less 500 kn
Theoretically calculated Max. Spreading force	Not less 850 kn
Max. Squeezing force	Not less than 125 kn
Max. Pulling distance	Not less than 700 mm
Max. Pulling force with pulling attachments	Not less than 80 kn
Weight	Not more than 21 kgs

Accessories to be supplied with the spreader:-

- 1. Pulling chains set – 1 Set (1 no 1.5 mtrs and 1 no 3 mtrs long)
- 2. Pulling attachments – 1 set

III. CUTTER:

- a. The cutter shall be double acting hydraulically operated device of light weight construction made of anti corrosive high strength material.
- b. The cutter shall be capable of cutting various sections such as solid ground bar, hallow round bar, flat section, square tube, rectangular tube etc. It would also cut the door pillars of new generation cars.
- c. The cutting blades shall be of shock resistant non corroding alloy steel, hardened and ground and shall be exchangeable and regrind able. The material specification of the cutting blades and hardness shall be indicated in the offer. The cutter shall also be able to cut the other various sections as stipulated in EN 13204 and NFPA 1960.

- d. The cutter shall have following specifications:

Max cutting force	Not less than 1750 kn
Blade opening	More than 200 mm
Weight ready for use	Not more than 22 kgs.
Capable of cutting round bar	Not Less than 45 mm
The material of the steel profiles shall conform to EN 10025-1-2000 table 5, type S 235 JR	
Mandatory Compliance category of cutting performance as per NFPA 1960 -	A9 B9 C9 D9 E9
Mandatory Compliance category of cutting performance as per EN 13204 -	1K,2K,3K,4K,5K

IV. COMBINATION TOOL

- a. The combi tool shall be double acting hydraulically operated of light weight construction made of anti corrosive high strength material.
- b. The combi tool shall be capable of cutting of various sections such as solid round bar, hollow round bar, flat section, square tube, rectangular tube etc. It would also cut the door pillars of new generation cars.
- c. The blades shall be of shock resistant non corroding alloy steel, hardened and ground and shall be exchangeable and regrind able.
- d. The combi tool shall meet the following specifications

Spreading Distance	Not less than 450 mm
Spreading force measured at 25 mm from the tips as per EN 13204	Not less than 40 kn
Cutting force	Not less than 900 kn
Squeezing force	Not less than 85 kn
Pulling distance	Not less than 325 mm
Pulling force	Not less than 100 kn
Weight	Not more than 20 kgs
Capable of cutting round steel bar	Not less than 40 mm
The material of the steel profiles shall conform to EN 10025-1-2000 table 5, type S 235	
Mandatory Compliance category of cutting performance as per NFPA 1960 -	A8 B9 C8 D9 E9
Mandatory Compliance category of cutting performance as per EN 13204	1J 2K 3K 4K 5K

Accessories to be supplied with the Combi Tool:-

Pulling chains set – 1 Set (1 no 1.5 mtrs and 1 no 3 mtrs long)

Pulling attachments – I set

V. TELESCOPIC RAM

- a. The ram cylinder shall be double acting hydraulically operated device of light weight construction suitable for manual application with ease. The details and design features of the ram and its controls and material used for construction of its major components such as pistons, cylinders and other components shall be given in the offer. Preferably a laser pointer shall be fitted inside the cross head for facilitating right and precise placement of the ram.
- b. The telescopic ram shall be capable of lifting and spreading operation. A male connector shall be fitted to

the tool to connect the hose.

- c. The telescopic ram shall have following specifications

Max. Spreading force 1st plug.	Not less than 225 kn
Max. Spreading force 2nd plug.	Not less than 110 kn
Length retracted	Not more than 650 mm
Stroke 1st plug.	Not less than 425 mm
Stroke 2nd plug.	Not less than 400 mm
Total stroke	Not less than 825 mm
Max. Length	More than 1500 mm
Weight	Not more than 19 kgs

VI. HYDRAULIC POWER PACK PETROL ENGINE OPERATED:

- The petrol driven hydraulic power pack shall be capable of powering tools and shall be driven by a 4-cycle, single cylinder, air cooled petrol engine. The power of the engine shall be sufficient to drive the hydraulic pump to give output sufficient to operate the two tools simultaneously without reduction in the speed.
- The petrol tank capacity shall be such that, it allows the engine to run for minimum one hour when the tools are continuous operation.
- The starting system of the engine shall be hand recoil type and the starting rope shall wound automatically in when released.
- The engine and the pump shall be mounted on suitable tubular carrying frame with integrated carrying handle.
- The noise level of the power pack when the engine is running shall not be more than 85 dB at 1 mtr.
- Suitable gauges shall be provided to find out the quantity of fuel and hydraulic oil in the power pack, and same shall be easily accessible visible means have preference. The provision shall also be made to refill the petrol and hydraulic oil through wide filling opening which shall be covered with threaded cap.
- All the hot parts of the power pack shall be properly shielded to avoid possibility of injury to the operator.
- All the controls on the power pack shall be easily accessible and properly labelled in English language.
- The weight of the power pack including hydraulic oil and fuel shall not be more than 25 kgs.
- The power pack shall be provided with 2 or 3 stage axial / radial pump with a minimum output of 2800 – 3000 cc/min per valve in the first stage and at least 1100 -1250 cc/min per valve in the second stage and at least 500cc in the third stage. Each pump shall be provided with an automatic change-over valve that switches the first stage output to no load to assure the high output in first stage and second stage. Each pump shall be protected with two internal safety valves, factory set at a suitable maximum pressure.
- The effective capacity of hydraulic oil tank shall be not less than 4 litres to supply the sufficient quantity of oil to two tools simultaneously with ample reserve capacity for the re-circulation of oil to avoid the over heating in prolonged operation. The specifications are given below:-

Engine		Petrol engine
Capacity oil tank (effective)		Not less than 4 litres
Pump type		2 / 3 stage axial / radial pump
Weight		Not more than 25 kgs
No. of tools connected		Two
No. of tools to be operated simultaneously		Two

- High quality 'Thermo Plastic' hose of 10 mtrs. in length for pressure and return line with quick connect couplings suitable to connect power pack and tools shall be supplied with the pump. Total 2 nos of hoses of 10 mtrs each shall be supplied with the pump

- m. Non-interchangeable hydraulic coupling designed for quick connection / disconnecting shall be provided with dust caps, complete with automatic self-locking system.
- n. The hoses shall have the working pressure suitable for tools and the bursting pressure of the hoses shall be 4 times the working pressure.

VII. MANUAL HAND PUMP:

- a. A lightweight hydraulic hand pump shall be offered as a standby unit for power pack to operate the tools.
- b. It shall be of 2 stage design with min. oil capacity of not less than 1500 cc and shall be capable of developing adequate pressure for operating all the tools including the telescopic ram upto their full capacity. It shall be possible to operate the pump even when placed in an inclined/vertical position. The weight shall not be more than 10 kgs.
- c. High quality 'Thermo Plastic' hose of 10 mtrs. in length for pressure and return line with quick connect couplings suitable to connect hand pump and tools shall be supplied with the pump

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Portable pump – 11 Nos.

SPECIFICATIONS OF PETROL PORTABLE FIRE PUMP 275LPMASPERIS:942

I. SPECIAL FEATURES:

- a. The unit shall be as per IS:942 & CE certified, and also consist of a Firefly make single stage centrifugal pump having an output of not less than 275 LPM at a pressure of 4 kg/cm² fitted on a tabular steel frame and with anti-vibration pads. The complete unit shall be of light weight construction so that it can be easily carried by two men.

II. ENGINE:

- a. Engine shall be of Briggs Stratton make Vertical, single cylinder, air-cooled, fourstrokehigh speed Petrol engine of capacity not more than 6.5 H.P. power at 3600 R.P.M.

III. PUMP:

- a. The pump shall be single stage centrifugal type directly mounted on the extension of the crank shaft of the engine & capable of delivering 275 lpm at 4 kg/cm² pressure.
- b. The Pump shall comprise of volute body (casing), impeller and single delivery outlet of 63 mm Aluminum Alloy and it shall be corrosion resistant. The impeller shall be dynamically balanced The Pump shall be designed to have easy access to the impeller with the outer face carryingsuctiondeliveryandpriming-deviceetc. Adrainplugshallbeprovidedatthebottomofthe pump casing.
- c. Round threaded suction eye shall be provided with a standard 75 mm suction connection with internal strainer and blank cap. The strainer shall be readily removable, but shall be retained firmly in position when in use. There shall be one delivery valve outlet of 63 mm female instantaneous hose connection with blank cap.
- d. A fuel tank of suitable capacity shall be provided for a minimum Continuous run of not less than 80 minutes without re-fueling.

IV. PRIMER:

- a. PrimingshallbeofReciprocatinghandprimer.Itshouldbecapableofliftingthewaterfrom maximum 7 meters at NTP conditions.

V. CRADLEFRAME:

- a. The heavy-duty frame work shall be made of tubular stainless steel.

VI. WEIGHT&DIMENSIONS:

- a. Dry Weight (without battery, oil & fuel) of entire portable pump assembly shall not be more than 36 kg. The limiting dimensions of entire pump set shall not be more than L- 550 mm x W- 450 mm x H- 460 mm.

VII. CONTROL PANEL:

- The pump shall be provided with following controls
 - 1) Engine Throttle
 - 2) Compound Gauge
 - 3) Key ON/OFF and Rope start
 - 4) Priming Valve
- The Pump shall be designed to work in all weather conditions without affecting engine and pump.

VIII. MARKING:

- The pump unit shall be clearly and permanently marked with the following information.
 1. The output capacity of Pump in LPM.
 2. Manufacture Name and Trade Name.
 3. Weight of the Pump set.
 4. Year of Manufacture.
 5. Sl.No. of the Pump.
 6. Engine No.

IX. WORKMANSHIP AND FINISH:

- (a) All parts of the appliance shall have good workmanship.
- (b) The appliance shall be painted in Fire Red Colour.

X. TEST:

- a. The pump shall be put to four hours Endurance test continuously and deeplift test from a depth of minimum 7 meters. Engine can be turned off for refilling fuel for maximum 90 seconds only.

XI. EQUIPMENT:

- The following equipment shall be provided with the unit.
 1. 75mm dia suction Hose of 4.5 meters length each fitted with suction Hose coupling of Gun Metal-2Nos.
 2. A tool kit comprising of all essential tools shall be provided for maintenance of the Pump- 01 set
 3. Suction Wrenches.-02Nos
 4. Metal Strainer(G.M.)-01No.
 5. Basket Strainer-01No.
 6. Canvas Cover to Cover up the Pump.

18

Smoke Exhauster -25 Nos.

I. General Specification

- a. It should be portable, high output smoke exhauster, electrically driven (220 V), suitable for use by fire fighters rescue team for both PPV application (for blowing) and well as NPV applications (for smoke ejection / suction) of hazardous gases / smoke in emergency situations.

II. Technical Specifications

- a. The exhauster should be of latest technology with following detailed features:-
- b. The exhauster should be compact in dimension / size and should not measure more than 20l (Height) X 20l (Width) X 15 (Depth) with a tolerance of +/-10% so that it can be easily placed in the fire tender compartment if so required.
- c. The exhauster unit should be light in weight and weigh less than 25kg
- d. The Exhauster should have high output airflow of min. 3000 cfm for effective de – smoking operations.
- e. The fan size should be 16l diameter with many turbo blades to generate strong air – force.
- f. The electric motor of the Exhauster should be capable of operating at 220 / 230 V, 50 Hz and should be made to International Standards.

III. Scope of supply

The Exhauster set will be supplied complete as per scope mentioned below-

- a. Smoke Exhauster Unit – 01 No.
- b. 16 Diameter Duct x 15 ft in length – 01 set with duct fitting. The duct should have suitable treatment for conducting static charges to the ground, thereby making it suitable for use even in hazardous locations. It should be having re-enforcements. Should be collapsible.

IV. Use:

Ac Motor/exhaust fan can be used in any type of collapse structure to remove the dust/fumes/smokes from the compact area/place for smooth functioning of rescue work.

Technical Specification:-

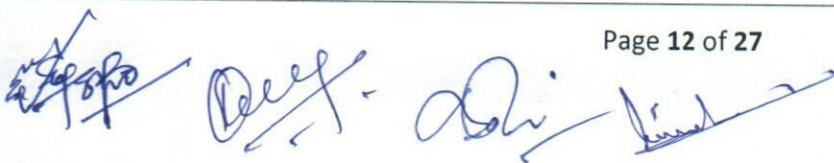
- a. Power : 2.2 HP/1.5 KW
- b. Speed : 2825 RPM
- c. Voltage : 260 Volts.
- d. Current : 605 AMP
- e. Phase : Single Phase
- f. Frequency : 50 Hz

19

Pneumatic lifting bag – 26 Nos.

PNEUMATIC LIFTING AIR BAGS (SQUARE TYPE)

- a. Lifting capacity: One Bag Minimum 30 Metric Ton and One Bag Minimum 50 Metric Ton or better
- b. Minimum inflation height: 300mm or better (for 30MT) and 370mm or better (for 50MT)
- c. The bags to be in square shape with operating pressure of 12 bar. Bursting pressure >48 bars. And testing pressure 18 bar. One bag of each size.
- d. The lifting bags will have an integrated molded rubber handle for easy handling. The handle should come with holes for attaching support ropes as required when bags are lowered from height for spreading. The inflation connector on the bags must be located on the edge of the bag on front side to allow an easy and ergonomically connection of the hose. The position of the connector and the integrated handle must be so as to protect the connector from possible mechanical damage.
- e. Each bag top and bottom must have an interlocking system for a stable cascade-like combining of lifting bags.
- f. There should be reflective markings on all four edges, side centres and in the centre of the bag allow accurate setting even in low visibility. Lifting bags should have position markings at (a) A central cross for positioning the lifting point and (b) Lateral reflective markings for positioning the insertion depth. There should be lifting height marking on the front of the lifting bag allowing easy comparative assessment of the lifting height. The maximum load capacity and the lifting height should be indicated on the front of the integrated handle for bag identification when these are stored or set parallel to each other. The serial number of the bags should be written numerically.
- g. Weight: Not more than 8kg (for 30T) and 12 kg (for 50T) or better
- h. Length of Air Hose: Minimum 10m, made of robust rubber for better flexibility and wider temperature range. The pressure of the hose should be clearly marked and engraved in the coupling and plug of the inflation hose. Weight within 1.5kg or better (2 Nos.)
- i. Shall have Pressure reducer: 300 bar to 12 bar, with pressure gages before & after reduction, supplied with 1m hose. Weight within 2.5kg or better (1 No.)
- j. Shall have Hand Held Dual Deadman Controller for operating at least 2 airbags with pressure gauges, weight within 1.7kg or better (1 No.).
- k. Shall have Shut off valve with safety valve, weight within 0.5kg or better (2 Nos.)
- l. The complete lifting bag system (Including bags & accessories like reducer/regulator, controller, safety valves, hose assemblies etc.) should be type approved to EN13731:2007 standard & certified by an EU notified body. Copy of the valid type approval certificate for bags & accessories as per various clauses under EN13731:2007 standard to be submitted with offer.



- m. Shall have Connection piece to connect two air cylinders (1 No.) or better.
- n. Shall have 2 cylinders of 6L 300 bar with valve, PESO approved.
- o. The lifting bags and main accessories should be imported and integrated with cylinder / connector from a single OEM/ Vendor.
- p. Tender specific authorization for the same in the name of the bidder has to be submitted along with offer or else the bid will be rejected.

20

Hand Mild Gas Detector – 03 Nos.

I. General Specification

- a. The detector will be a Hand-Held Gas Detector with sensors for simultaneously checking for presence of Oxygen (O₂), Combustible Gases, Carbon Monoxide (CO) and Hydrogen Sulfide (H₂S).
- b. High-contrast LCD showing continuous & simultaneous real-time gas concentrations for all 4 gases.
- c. High-output 95+ dB Audible alarm at 30cm distance. Visual alarm bars and Internal Vibrator alarm
- d. It will be tougher and equipped with integral concussion-proof boot for the most rugged environments
- e. Will have backlight in low light (auto), in alarm (auto) and on demand
- f. Simple auto zero and auto calibration with diagnostics protection
- g. Will record and display TWA, STEL and peak exposures to gas on demand
- h. Has four alarm levels viz. Instant Low and High Alarm for all gases; TWA (Time Weighted Average) and STEL (Short Term Exposure Limit) for H₂S and CO; OL (Over Limit Alarm) for LEL.
- i. The power source will be rechargeable battery and supplied with a suitable 220V, 50Hz AC charger. Typical battery run time will be up to 14 hours.
- j. Continuous LCD will show simultaneous gas concentrations for all gases
- k. User selectable field options will include; Confidence Beep, Pass Code Protection, Latching Alarms, Calibration Date due advice, Safe Display function, Enable/Disable sensor
- l. Other features will be full function self-test of: sensor, battery and circuitry integrity; and audible/visual alarms, continuous battery test and instrument status diagnostics

II. The detector should have built-in Data

- a. Logging and Event Logging facility,
- b. Instrument should have a water resistant IP 66/67 construction.
- c. Instrument Dimensions will not exceed 6 x 11 x 4 cm and the detector will weigh less than 175 grams
- d. Operating & Storage Temperature range will be within -20 °C to +55 °C
- e. Operating Humidity will be 5% to 95% relative humidity (non-condensing)
- f. The instrument will have approvals like Intrinsically Safe; Cenelec: Exia d II C, CE Declared for European Conformity; Australia: Exias IIC for Zone 0; Combustible Gas Performance: ANSI/ISA-S12.13 and CSA C22.2 No. 152. It will also be CCE certified. The quotation will be complete with Specific authorization from manufacturer and copy of any of the approval.
- g. There should be Two Year Warranty for both instrument & sensors.

III. SCOPE OF SUPPLY

- It will include the Four Gas detector for LEL, O₂, H₂S and CO in Safety yellow color with integral concussion-proof boot, ready for use complete with charger, alligator belt clip and instructions in English.

21

Victim location Camera – 26 Nos.

1. VICTIM LOCATION CAMERA

Weight: Not be more than 20 kg or better

Storage Case: Water and dust tight made from suitable material with foam insert for camera and its accessories

Power supply: Built in rechargeable battery

Operational temp: -10deg C to +50deg C or better

Humidity: 10% to 90% relative or better

- a. CMOS Color Video camera of 5MP with sensitivity of at least 0.01 lux or better.
- b. The camera head shall be able to articulate 0-270° left to right or better and camera housing should rotate to 360°. It should have Built in speaker and microphone or better. Camera should be IP 65 or better rating.
- c. At least 7" LCD / similar colour display monitor or better with all controls for operator. Operator headset and mic to be supplied for two way communication. The screen should have provision to capture & store images as well as videos. It should also have zoom facility. It should also have wireless transmission feature. Monitor should be IP 65 or better rating.
- d. Camera and monitor to be mounted on a telescopic probe that can extend to 5m atleast
- e. One such pole camera sets to be supplied (camera + monitor & controls + headset and mic + 5m telescopic pole).
- f. One under-water camera in SS housing to be supplied for borewell search. Camera head shall be able to rotate 360° and articulate 0-180° left to right or better. It should also be supplied with a 7" LCD / similar colour display monitor or better with all controls for operator. The screen should also have provision to capture & store images as well as videos. It should also have zoom facility. It should also have wireless transmission feature. Monitor should be IP 65 or better rating. It should be supplied with a 20m cable with connectors to connect camera to monitor.
- g. One Additional Screen / similar 7 inch colour remote display screen with protective case and hand strap/grip to receive signal wirelessly from the main pole camera system or from the under water camera system.
- h. Built in Rechargeable type batteries with charger or better for each sub-system.
- i. Minimum 3-4 hrs of continuous use or better for each sub-system.
- j. Maximum 4-5 hrs to full recharge or better for each sub-system.
- k. Petrol Engine (4-stroke) driven breaching system with diamond studded coring bit and water cooling can. One spare coring bit to be supplied (length 450 mm and diameter atleast 50mm)
- l. The search camera set should be imported and integrated with the breaching system from a single OEM/ Vendor. Tender specific authorization for the camera in the name of the bidder has to be submitted along with offer or else the bid will

22

Petrol Chain Saw (wood cutting) – 28 Nos.

I. Petrol Chain Saw (wood cutting) Specification:-

- a. Petrol Engine: Air Cooled 2 Stroke, Single Cylinder
- b. Displacement :70 to 75 Cc
- c. Bar Length:58 to 63 Cm
- d. Weight (Drive Head):Not exceeding 7.0 Kg.
- e. Fuel Tank: Minimum 700 ML
- f. Oil Tank: Minimum 350 ML
- g. Carburetor: Diaphragm Type
- h. Chain Lubrication: Automatic Oil Pump
- i. Magneto: Flywheel Magneto, CDI Igniter
- j. Starter: Recoil Starter
- k. Idle Rpm:2700+ 500
- l. Rated Power:3.8 to 4.5 KW
- m. Max Chain Speed: Around 21 Mt./Sec
- n. Other Device: Front Hand Guard, Throttle Trigger Lock, Chain Catcher, Chain Brake, Anti-Vibration Device, Spiked Bumper.

II. Application: To cut large tree, branches, logs and wood in any form namely plank, door, window, beam etc.

Item 4.7m Rubberized inflatable boat with 30 HP OBM

- I. Exterior size of boat, minimum(LX B)in mm=4700x2000
- II. Interior size of boat, minimum.(L xB) inmm= 3300x 1000
- III. Diameter of Buoyancytube, Min(mm)480
- IV. Air Chambers min.: 5
- V. Colour of the Boat: Orange
- VI. Material fabric: The craft will built of Buoyancy Tube made of Composite Fabric consisting of Hypalon (outer layers) and Neoprene (inner layers) of 1670 Dtex or equivalent
- VII. The Inflation/Deflation valve shall combine a high pressure air connection with a deflation valve in each air tight chamber and shall be as per ISO 6185-3 (2014).
- VIII. Floor Board(nos &Size)interlocked together to for marigid platform(mmxmmxmm):3& Length 800 x Width 1200x12-14mm thick
- IX. The Floor boards shall be made of High Strength Tempered Anodised marine grade Aluminium alloy with a non-skid finish. These boards (Three/Four pieces) shall be interconnected together to form a rigid platform. The forward/bow piece of floorboard may be made of marine plywood (IS 710) coated with FRP lamination.
- X. **Keel** The boat shall have provided with inflatable keel of suitable size to provide the rigidity & stability during operation of boat.
- XI. **Rubbing Strips..** Following single piece Rubbing Strips of moulded neoprene rubber of 2" width (where not mentioned) and extending along the entire length shall be attached to the buoyancy tube for the protection of the craft:-
 - (a) Bow rubbing strip 4".
 - (b) Outer anti chafing strip 100mm wide on both sides.
 - (c) Anti-Chafing Strip under Keel.
 - (d) Two Beaching Strips 100 mm wide under buoyancy tubes.
 - (e) Chafing patch for coxswain's position

Handles should be provided for carrying the Rubber Boat

Fittings: Life line all round to support 10 persons in water, Carrying Handle- 4 no's, towing hook-2 no's, Storage pocket-1 no, Drain Plug-2 no's, rubber strake all through fender line and keel line.
- XII. Accessories: Foot pump-1 no, Floor Board 1 set-FRP floor board, Paddles of aluminium handle and molded plastic blades-2nos, Valise-1nos.
- XIII. Rubberstrakeshouldbeprovidedatthebottomforsafetyoftheinflatableboat
- XIV. Inflatable Mechanism of Boat : Foot Pump as well as Electric Pump (12 V DC)
- XV. Aluminium flooring shouldbe provided.
- XVI. Additional Spares

Patching material with adhesive to repair leak/damage in buoyancy tube.
- XVII. Type approval from Indian Register of Shipping required for rubber coated fabric as per ISO 6185-3-2014 of OEM
- XVIII. Work approval certificate from Indian Register of Shipping required for manufacturer of inflatable boat /Inflatable Raft as per IS 6185-1 to 3 of OEM
- XIX. Bidder must upload "Directorate General of quality assurance certificate for rubber boat manufacturer certificate of OEM required (CQAE /DGQA Certificate)
- XX. Bidder must also upload active IRS work approval and active IRS type approval for Rubber boat upload OEM Certificate.
- XXI. The Craft is to be constructed under the approval of Indian Register of Shipping (IRS) in accordance with ISO 6185, Part 3 (2014).OEM certificate Required.
- XXII. Bidder must also upload active NABL certificate of OEM (National Accreditation Board for Testing and Calibration Laboratories) as per ISO/IEC 17025:2017"General Requirements for the Competence of Testing &Calibration Laboratories"
- XXIII. OEM Average Turnover (Last 3 Years) should be approx 18.50 Cr.
- XXIV. OEM Must Have supplied at least 50 Boat in last 3 year each year.

Out Board Motor	An outboard motor is a propulsion system for rescue boats, consisting of a self- contained unit that includes engine, gearbox and propeller or jet drive, designed to be affixed to the outside of the transom with accessories.
MAKE MODEL	40 HP Suzuki / Tohatsu /Honda etc. with original manufacture.
TRANSOM HEIGHT mm or inch	S: 381, L: 508 or 15", 20"
STARTING SYSTEM	Manual
WEIGHT kg	72 Kg
ENGINE TYPE	2-stroke 2 Cylinders or 3 cylinder
DISPLACEMENT cm ³	697
BORE ×STROKE mm	71x63 or 68 x 64 mm (2.68 x 2.52 in)
MAXIMUM POWER kW	40 hp (29.4 kw)
FULL THROTTLE OPERATING RANGE rpm	5,000-5,700
FUEL TANK CAPACITY Lit.	Gasoline:25
IGNITION SYSTEM	P.E.I.
STEERING	Tiller
TRIM METHOD	Manual Trim & Tilt
FUEL/OIL MIXING RATIO	50:1 *1
GEAR SHIFT	F-N-R
GEAR RATIO	2.09:1
DRIVE PROTECTION	Rubber bush

24

Floating Pump – 06 Nos.

Floating Pump: Floating Pump is used for filling of water tanks in fire tenders or portable reservoir from natural and artificial water courses. Moreover, the following pump can be used for pumping out the water from floated compartments (i.g.basements) and to others operations (e.g.in flood operations)

Sr.Nos	Feature	Parameter
1	Engine Type	Four stroke gasoline / petrol
2	Discharge -	>1180 lpm at pump level
3	Fuel Tank	The fuel tank with volume of 2 dm ³ for 02 hours and 10 minutes working.
4	Control	The engine should equip in a three-position control level.
5	Pump Seal	The pump shaft should have mechanical-ceramic sealing.
6	Float Assembly	The pump and engine set is attached to the float made high density polyethylene and it is unsinkable even in case of mechanical damage (e.g. crack) of external layer. Two grips for handling of floating fire pump should attached to the upper part of float.

	7	Technical Parameters	Output on pressure at 2 bar 400 dm ³ / min (lpm)
	8	Total weight of pump	Not more than 30 kg.
	9	Delivery	63mm dia
	10	Impeller	Single stage impeller pump

25

Combi Tool – 23 Nos.**TECHNICAL SPECIFICATIONS OF HAND OPERATED COMBI TOOL**

- a. The rescue tool shall be designed for cutting during Rescue Operation.
- b. The rescue tool shall be self-contained device with integrated hand pump. The pumping action shall be towards the object that is being cut enabling the operator to use the full force of the hand while using the tool.
- c. It shall be hydraulically operated, lightweight and capable of being operated by one person.
- d. The operating system shall have the best ergonomics of functioning. The Handle shall be rotatable at 360 deg. It should have a Self-Locking or manual locking system. The head of the tool shall be a fixed type and shall not be rotatable.
- e. The rescue tool shall be independent from any outside power source and be operated only by a hand lever integrated in the tool itself. The operation shall be extremely user friendly possible by the same person who holds the tool.
- f. Minimum spreading force at the tips in closed position shall not be less than 3 tons. Maximum spreading force shall not be less than 135 tons.
- g. Spreading distance at the tips shall not be less than 350 mm
- h. The tool shall be capable of Cutting (in the blade recess) not less than 24 mm steel bars as per EN 13204
- i. The maximum cutting force shall not be less than 25 tons
- j. Weight of ready to use unit should not be more than 10 kg.
- k. The blades shall be of impact free cutting design to overcome the flying of metal pieces during cutting process.
- l. The blades shall be able to bite firmly into the work piece and resist any tendency for it to slide forward under the cutting action.
- m. The blades of the tool shall be made of drop forged tooling steel and must be one piece without loose parts.
- n. The tips of the blade arms must be serrated inside and outside for firm grip during spreading or squeezing.
- o. The tool shall be capable of working under extreme conditions, high dusty environment, high humidity & a temperature range from – 20 Deg C to + 55 Deg C.

26

B.A Compressor Machine – 03 Nos. (with installation)**PETROL ENGINE DRIVEN HIGH PRESSURE BREATHING AIR COMPRESSOR**

The compressor should be a light duty light weight high pressure breathing air compressor for single cylinder filling at a time for SCBA / SCUBA cylinders. Main specifications / features will be as under:

Free air delivery	100 lpm (+/-5%)
No of cylinders	Minimum 4 cylinder 4 stage compressor block to increase efficiency, reduce inter-stage compression and improve cooling.
Construction	Crankcase to be made of two piece die-cast aluminum for lightness, resistance, with easy oil filling hole and oil drain. 1st and 2nd stage cylinders should be made in aluminum coated with Nikasil treatment to reduce the friction coefficient, increase sliding and reduce wear. 3rd and 4th stage cylinders to be made in hardened steel to resist high pressure. Atleast 3 main bearings to be provided for perfect axial rotation. Crankshaft to be

	made of forged steel to increase resistance to fatigue, compression and mechanical yielding. Connecting rods made of forged steel to increase resistance to fatigue, compression and mechanical yielding. Fan and pulley applied opposite to the two ends of the crankshaft to reduce the workload on the bearings. All cooling pipes in 316L stainless steel to avoid corrosion. Cooling air flow 990 m ³ /h
Working Pressure	300 Bar or 200 Bar (user selectable)
Prime Mover	4 stroke honda petrol engine with pull rope start
Filtration System	Micronic types filter at suction / intake. Discharge filter with Molecular Sieve, Activated Carbon & CO Catalyst in translucent PP housing so as to provide air in compliance with EN12021:2014 standard. Filtration capacity atleast 150m ³ at 20 deg C for 200 bar.
Separator	After final stage with manual drain. Pressure gage mounted on housing.
Filling connection	It should be supplied with One Kevlar / Aramide HP Filling Hose 1.2m long with filling adapter for 300 bar (DIN type) with manual purge valve. Protection for accidental hose breakage will be provided. Special adppter to be supplied for filling 200 bar cylinder with safety valve.
Safety Relief Valves	After HP Stages (after 3rd and 4th stage). The Final Safety Valve for 300 bar filling and 200 bar filling should be CE certified to PED directive 2014/68/EU module B & D. Copy of certificate from EU notified body to be mandatorily submitted along with Technical Bid.
Lubrication system	Splash type with oil throw pin. Double oil level control, oil sight glass for quick control and dipstick for accurate control
Cooling	Forced Air Cooled compressor using cooling fan made of fiber / thermoplastic nonmetallic blades.
Frame	Frame made of powder coated steel with handles, grill enclosure/protection for V-belt and cooling fan. Plastic or Fiber covers not acceptable for rotating parts. Aluminum frame not acceptable.
Weight	Dry Weight of compressor < 45 kg

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**Personnel Protective Equipments (PPE)
(Fire Proximity Suit) – 100 Nos.**

I. GENERAL SPECIFICATION

- a. The suit should be a MULTI LAYER FIRE SUIT, designed for proximity firefighting, fully imported, in two-piece design, CE Certified / marked meeting the performance requirements of Standard EN-469:2007 having outer layer made of NOMEX.
- b. It should consist of Protective Fire Coats and Over-trousers worn by fire fighters to provide protection against occasional flame contact, the transmission of radiant heat and moisture during structural firefighting activities.
- c. The Outer shell should be made of inherently flame resistant NOMEX material only.
- d. The Moisture barrier should be made of suitable material / membrane with laminated FR fabric.
- e. The Thermal Liner should insulate against radiant & convective heat and should be made of heat resistant material quilted to FR fabric.
- f. Garment design features should include a double close front, Velcro fixing device and safety zipper; Throat Safeguard design adjusted by Velcro fixing device; Double Super large pocket on the Jacket and Pants, One Radio Pocket on the Chest and Concealed Paper Pocket between double close fronts; Cuffs should be adjusted by Velcro and with fire proof, water proof and thumb ring design; Extra patches shall be placed to the bottom of the Jacket's arms to increase the movement capacity; F.R. Reflective tape in Yellow/Lime/Green color should be sewn around the cuffs, foot, chest & back part of the Jacket and on the lower part of the Trousers all around as well as on the side; Waist of the trouser should be at least 25 to 30 cm higher than the Jacket's base (for overlap); Elastic girdle and suspenders should be easily opening / lockable type with adjustable clips; Garment should be sewn using Nomex thread.; Color should be Dark or Navy Blue.

- g. The Coat and Over-trouser should be supplied as a matched ensemble providing protection to the upper and lower torso including neck, arms to the wrists and legs to the ankles.
- h. The Coat and Over-trouser ensemble should be constructed as a multi-layer assembly containing an outer shell, moisture barrier and thermal liner.

II. ACCESSORIES

- a. The suit should be supplied with following accessories:-
- b. A pair of Imported Multi Layer FIRE FIGHTER GLOVES with outer shell made of FR material with additional moisture barrier & thermal liner. It will have extra strength & dexterity. It will provide flame and heat resistance, water and chemical resistance, and high resistance to cutting. It will be CE Marked / Certified to meet performance requirements of standard EN-659.
- c. A pair of Imported FIRE FIGHTER BOOTS made of Flame Retardant Rubber with Steel Toe Cap and Steel Mid Sole (CSA Class 1). Will be Electric Shock Resistant (CSA Omega) and will have a heat and oil resistant anti-slip sole. Will have heavy canvas lining with sponge cushion insole. Will provide ankle protection. Will be 100% Waterproof & have carrying arrangement on top for ease of donning.
- d. Boots should be CE Marked / Certified to meet requirements of EN-345-2 & EN-15090:2006 standard.
- e. A balaclava style Imported KNITTED SOCK HOOD to provide head and neck protection against direct flame contact. Will be made of knitted FR material.
- f. It should be CE Marked / Certified to meet requirements of EN-13911 standard.
- g. An Imported FIRE MAN HELMET – Light-weight and made of Kevlar Shell. It should have an impact liner c/w leather headband, Ratchet dial size adjuster 52-64cm, 2 point chinstrap with snap-clip, a polycarbonate Face Shield such that the visor can be adjusted to any position. The helmet will have a Neck Protector made of FR material and will be CE Certified to meet performance requirements of standard EN-443:2008.
- h. The supplier will be in this field for at least 5 years and should have supplied at least 200 suits and accessories all over India. Copies of all EN certificates and authorization letter from manufacturers (in case of a dealer) should be submitted with offer.

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Petrol Chain Saw (Cutter for concrete) – 23 Nos.

TECHNICAL SPECIFICATIONS: Heavy Duty Professional Petrol Engine Operated Chainsaw with 24" Guide bar

GEM CATEGORY- CARBIDE CHAINSAW

SL. NO	PARAMETER	SPECIFICATION REQUIRED
1	ENGINE	Sequentially Stratified Scavenged 2 Stroke Petrol Engine Air cooled Only. Should handles ethanol content up to 20%.
2	DISPLACEMENT	86 to 95 CC
3	CRANKSHAFT	3 Piece Crankshaft design to ensure better durability and weight balance.

[Handwritten signatures and initials]

4	CRANKCASE	Magnesium crank case , Sturdily built crankcase with-stands high rpms and tough professional use, ensuring a long service life.
5	POWER OUTPUT	More than 6.3 HP/4.7 KW
6	RACING SPEED LOWER LIMIT	More than 11000 RPM
7	FUEL TANK CAPACITY	More than 800ml and Tank location bottom side and non-breakable plastic
8	DRY WEIGHT(without cutting attachment and fuel)	Not More than 8 Kg.
9	GUIDE BAR LENGTH	24 inch only.
10	GUIDEBAR AND CHAIN	Should Have same OEM only
11	CHAIN TYPE	3/8 inch Pitch only.
12	CHAIN LUBRICATION SYSTEM	Fully automatic ,speed controlled rotary oil pump
13	CHAIN OIL TANK CA-PACITY	Minimum 400 ml
14	CHAIN TENSIONING	Side Access Tensioning
15	CLUTCH	Inbound Metal Clutch Shoe lining for slim design and better maneuverability.
16	AIR FILTER	Dual Air filter Design with 80 Micron Felt Filter.
17	Vibration Level m/s² (front handle)	Not more than 7 m/s ²
18	Vibration Level m/s² (Control handle)	Not more than 6 m/s ²
19	Guaranteed Sound Power Level (Db/A)	Not more than 120dB(A).
20	Attachments & Compatibil-ity	Machine should be compatible & supplied with 2 addi-tional chain,1 Ltr 2T oil,1 Ltr Chain oil and Sharpening kit. These item should have same OEM only.
21	Warranty and Service	1 Year Warranty
22	Spare Availability	Declaration should be given on OEM letterhead for 5 years of spare availability from date of purchase.
23	OEM Authorization	Tender Specific OEM Authorisation is must.
24	Specification	Specification should be submitted on OEM letterhead.
25	Service Center	OEM Authorised Service center should be in Arunachal or neighbor State. Declaration should be submitted on OEM Letterhead.
26	Certification	Should be certified with CE or TUV.

Product data sheet For Inflatable Light

Portable LED Lighting System, Inflatable – Product Specifications	
SPECIFICATIONS	DETAILS
GENERIC	
Description of store	Portable LED Lighting system, inflatable
Light source / Lamp Wattage Max / Lumen output Min	LED/400W/51000 lumen
Minimum warrant period of complete systems (in Month)	12 Months
GENSET	
Availability of valid certificate of conformity of production (CoP) for compliance to mass emission norms for Genset Engine	Yes available
Availability of valid certificate of conformity of production for compliance to Noise norms for Petrol Genset	Yes available
Compliance with CPCB norms	Yes. as per Gazette Notification No. 397 - G.S.R. 535 (E) dated 7th August 2013
Agreed to furnish type approval certificates and CoP certificates to buyer on demand	Yes
Type of Generator	750 VA, 230 V, 1 Phase, 50 Hz, AC, 0.8 PF
Starting type	Recoil start
Type of fuel	Petrol run
Fuel tank capacity for continuous running hours of Genset at full Lighting load (in Hours) – Minimum	6.5
Fuel tank capacity (in Ltrs)	3.6 litre
Type of cooling	Air cooled
Engine type	4 stroke, 1 cylinder engine
Engine capacity, Minimum (in CC)	79
CONSTRUCTION	
Base frame and base plate sheet to support for generating set and control gear box	Yes. Provided
Material of Base frame	SS Tube
Material of base plate	Mild steel
Thickness of base plate, Minimum (in mm)	1.2
MS parts powder coated	Yes
Provision of anti vibration rubber pads	Yes. Provided
No of compressors/air blowers with suitable rating (in Nos.)	2
Tool kit for each unit	1 No. each of Screw driver, Plug spanner and Nut drive
INFLATABLE TOWER	
Inflatable lighting tower capable to provide instant light in shortest possible time to illuminate wide area of	approx. 10,000 Sq. meters

Type of tower	Cylindrical shaped balloon made of suitable Nylon based cloth to ensure light emission with minimum loss
Tower designed with waterproof and strengthened with flexible stiffeners to sustain inside air pressure and to remain erected against outside wind	Yes
Material for top cover of balloon	Moulded fibre glass
Top cover designed to fasten the tower balloon by steel strip to avoid air leakage at joints and nipple/hole provided for filling air in balloon and support for it to remain erect at wind speed as declared below	Yes
Sound damping for Blowers	Sound damping system includes Primary Ring and Secondary Ring holding sound absorbent sheet and Sound damping insulator which surrounds the Blower motor assembly to minimize the blower sound.
Details of Stabilizing rod holding plate	The Rod holding plate located on the top cover, outside the surface of inflatable balloon. It is configured to hold one end of SS Stabilizing rod.
Stabilizing rod	Stabilizing rod supports the inflatable Balloon at one end. It is made up of 7 nos. Stainless steel Pipes with interlocking system. Other end is inserted in rod holding plate.
LED Light Mounting	LED Light made of LED array is coupled to the top end of the inflatable balloon and facing inside the balloon. It goes up/down while inflating and deflating
Outside Wind Speed at which the balloon shall remain erected, Maximum (KM/hr)	45
Rain proof Inflated tower	Yes (Cylindrical shape Structure)
Balloon height in inflated condition from ground level	4.5m
Maximum Time Taken to Inflate the balloon (in seconds)	60
Maximum Deflation time including repacking time (in minute)	5
Provision of stay wire ropes provided and it can be tied to tower (balloon) and grouting hooks in case of extra wind velocity	Polyester rope with 5m length
Rope dia (in mm)	3
No of Rope (Nos)	3
No of empty bag for sand	3
Puncture tape for each tower balloon	3 Nos. Size: 100 mm x 100 mm

LIGHTING SYSTEM

LED Light	400W LED light has LED array mounted on 6 Thermally conductive PCB with EPOXY coating and light weight Heat
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	sink.
No of control drivers	2 LED driver
Type of blower	With carbon brushes
Provision of switches and indicators	ON/OFF switches, MCB at AC /DC output, Indicating lamp, 50% dimming switch, Blower ON/OFF Switch.
IP Code	65
Minimum lux value	1 at 55 m radius
Time duration for minimum lux value (in sec)	< 5
System also work on AC mains supply	Yes. Works on 220 V / 230 V – 50 Hz AC
Provision for AC main supply	3 pin plug with suitable leaded wire at one end
Lamp Life , Minimum (in Hours)	50000
BIS compliance for LED driver and complete LED Light	Compulsory
DIMENSION	
Overall dimensions in deflated condition nominal (mm) – Must declare	590*560*610
Tolerance for dimensions	+/-10%
Max total weight of complete system (excluding Fuel, storage box and accessories) (kgs)	50
ADD ON ITEMS	
Add on item for each unit	Rain Protection Cover, Stabilizing Rod for fall proof operation, 3 Nos. Spare Puncture Tape for repair work (size 100 mm x 100mm)
CERTIFICATIONS	
BIS certificate for LED Lighting system is compulsory as per IS 10322(Part5/section1)2012	Compulsory, the name of oem and model of the offered product in the tender must match with the name of OEM and model on the BIS Certificate, any mismatch will result disqualification.
Agreed to furnish LM 80 TM 21 for LED and and LM 79 reports for LED Lamps	Yes
Availability of test reports from Central Govt Lab or NABL/ILAC accredited Lab to prove conformity of the specification	Yes. Reports for Complete System Including Generator, Lighting system, and all the feature and functional parameters
Agreed to furnish all the test reports and certificates to buyer on demand	Yes

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High capacity LED torch – 46 Nos.**GENERAL SPECIFICATION**

- The LED torch cell has high intensity discharge capable of giving high and low light beams.
- The LED torch shall have main bulb and secondary bulb. The main bulb shall be min 50-watt xenon and the secondary bulb shall be 3 watt Luxeon.
- The torch shall be capable of operation for min two hours on high beam and more than 12 hours on low beam.
- Suitable charger shall be provided with the LED torch and the charging indicator shall be available on the torch. Adjustable stand and detachable shoulder strap shall also be provided with the torch.

- e. The light produced by this torch shall be white and natural light color.
- f. The battery used in the LED torch shall be Nickel Metal Hydride battery pack (Ni-MH) and of 12 volts 9 A/h. The full charge time shall not be more than 8 hours.

The weight of the torch including the battery shall not be more than 3 kg

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First Aid Box – 40 Nos.

GENERAL SPECIFICATION

- I. Emergency First Aid Guide
- II. Large Universal Dressing (2)
- III. Triangular Bandages 110cm x 110cm (2)
- IV. Crepe Bandage 5cm (1)
- V. Crepe Bandage 7.5cm (1)
- VI. Crepe Bandage 15cm (1)
- VII. Heavy Crepe 10cm (1)
- VIII. Combine Pads 20cm x 30cm (2)
- IX. Combine Pads 10cm x 10cm (2)
- X. Conforming bandage – 5cm x 1.5m (2)
- XI. Conforming bandage – 7.5cm x 1.5m (2)
- XII. Wound Dressing No. 14 (1)
- XIII. Non-adherent Pad 7.5 x 10cm (4)
- XIV. Non-adherent Pad 7.5 x 20cm (2)
- XV. Burns Sheet Small (1)
- XVI. Bag Adhesive Strips (Bag of 50) (1)
- XVII. Antiseptic Swabs (8)
- XVIII. Alcohol Swabs (3)
- XIX. Bag Antiseptic Steritube (Bag of 2) (1)
- XX. Eye Pads Large (2)
- XXI. Saline Steritube 15ml (4)
- XXII. Saline Steritube 30ml (2)
- XXIII. Sterile wound dressing – No. 13 (2)
- XXIV. Sterile wound dressing – No. 15 (2)
- XXV. Fabric strips (pk 50) (1)
- XXIV. Antiseptic wipes (pk 10) (1)
 - i. Hypo-Allergenic Tape 2.5cm x 9m (1)
 - ii. Bag Safety Pins (Bag of 12) (1)
 - iii. Pkt Disposable Splinter Probes (Pkt of 5) (1)
 - iv. Stainless Steel Sharp Forceps 12.5cm (1)
 - v. Stainless Steel Sharp/Blunt Scissors 12.5cm (1)
 - vi. Emergency Shock Blanket (1)
 - vii. Pkt Paracetamol Tablets (Pkt of 12) (1)
 - viii. Stopitch 50g (1)
 - xi. Bag Disposable Nitrile Gloves (Bag of 2) (1)
 - x. UP Sunscreen Tube 30+ 100g (1)
 - xi. Disposable Resuscomask (1)
 - xii. Sterile Gauze Swabs 7.5cm x 7.5cm (3)
 - xiii. Bag Disposable Towels (Bag of 3) (1)
 - xiv. Skin Closure 5 (2)
 - xv. Cetrimide 30ml Antiseptic (4)
 - xvi. 12.5cm S/S Blunt Sharp Scissors (1)
 - xvii. Disposable goggles – clear (1)
 - xviii. Instant cold pack – disposable (1)
 - xix. Antiseptic Soap (1)
 - xx. Plastic Kidney Dish (1)

	xxi. 12.5cm S/S Forceps (1) xxii. Forceps plastic (2) xxiii. Plastic Bag Medium (1) xxiv. Biohazard waste bag – yellow (large) (1) xxv. Notepad & pencil in bag (1)
32	Rope Launcher – 10 Nos.
	<p>Rescue rocket system with sling and line deployment consisting of one launcher, inflatable sling and line projectiles with charging hose & adaptor with 300 ft polypropylene rope and 500 ft Decron 3 mm rope with rope storage compartment to be used with the launcher along with accessories. The system should be intrinsically safe and should work on Air Thrust technology.</p> <ul style="list-style-type: none"> • Battery of the engine- 1No. • Revolving beacon light- 2 No. • Side Flashing Square Lights- 4Nos • Rear Amber Blinker Signal Light- 2Nos.
33	Dry Chemical Powder (5Kg Pkts.) – 12 Nos.
	I. Dry Chemical Powder ISI Mark 1S:4308 II. Capacity-5kg packet. III. Brand: Best quality
34	AFFF bottle – 40 Nos.
	I. Confirming to IS:4989 II. Capacity 540 ml. III. Brand: Best quality
35	Co2 Fire Extinguisher 2kg. – 08 Nos.
	I. Conforming to IS 2878 (latest) II. Capacity – 2 Kgs. III. Extinguishing Media- CO2 Based IV. Brand: Best quality
36	Co2 Gas Cartridge 60gram – 12 Nos.
	I. Confirming to IS:4947 II. Capacity-60 gm III. Brand: Best quality
37	Co2 Gas Cartridge 90gram – 12 Nos.
	I. Confirming to IS:4947 II. Capacity-90 gm III. Brand: Best quality
38	Body worn Cameras – 79 Nos.
	I. Device type Cnnern with audio-video recorder cum player with live streaming facility. II. Device dimensions (max) length – 12mm, width -90mm, height – 40mm III. Working temperature -10 degree Celsius to +60 degree Celsius IV. Storage temperature - 10 degree Celsius to +60 degree Celsius V. Device ID Unique ID for identification VI. Water proof – IP/66/67 (to be defined by the user) VII. Computer interface- USB cable, Type 2.0/3.0 VIII. Body worn facility – Clip/Harness type (to be defined by the user)

(A) Camera:-

- i. Sensor capacity (minimum) - 05 MP
- ii. Sensor type- CMOS
- iii. Resolution (minimum) 720 P@30 fps
- iv. FOV (minimum)- 120 degree (diagonally)
- v. Night vision- IR (5 mtr)

(B) Recorder :-

- i. Recording type- one button recording star/stop
- ii. Snapshot- capture photos during recording
- iii. Audio- good in-build microphone
- iv. Storage duration (minimum)- 16 GB in-buildg. Expandable storage- Optional (To be defined by user)h. GPS- Build-in (Optional) (To be defined by user)9(C) IN-BUILT AUDIO/VIDEO PLAYER CUM IMAGE REVIEW LCD Screen- 2 inch (max), TFT color displayb. Screen protection – scratch proof coating/Screen guardc. Audio/Video playback- yesd. Fast forward- 2x, 4x, 8xe. Rewind - 2x, 4x,f. Editing/deleting protection- should be password protectedg. User language interface- English
- v. Recording “ON” indicator- LED indicator
- vi. Recording duration (minimum)- 8 hours continuous recording

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Podium with PA System -01 No.

- I. Podium Size: 54 inch or 4.5 feet (approx.)
- II. Material: Engineered wood. Finish-Plain Laminated. Colour- Dark Brown.
- III. Size: Standard
- IV. Items weight: 25 kg.
- V. Shape: Rectangular
- VI. Items Dimensions LxWxH: 63.5 x 45.7 x 121.9 centimeters.
- VII. Width-25 inches, Depth-18 inches, height-48 inches
- VIII. The Podium should be 4.5feet in height which makes it accessible for almost every person of average height to have a clear view of the audience in front.

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Collar Micro phones – 05 Nos.

- Headphone with Microphone. Headset microphone included one wireless transmittor one wireless receiver, one headset mic and one color mic)

41

Overhead Projector with screen and computer laptop – 01 No.

- I. Android based & App downloads support powered by Quad core processor. Watch OTT, movies, series etc for long hours with 1080p native, 3800 Lumen, 1000:1 contrast, Upto 508cm screen size] High brightness, Clear Full HD output, Natural colors & Big screen size support. Dolby Audio decoding, Powerful speaker combination for the best audio experience. Also supports AUX 3.5mm audio output to connect speakers. Dual band Wi-Fi 2.4GHz & 5GHz for smooth and fast internet connection. Miracast & iOS Screen mirroring to Smart Phone, tablet / Laptop screen. HDMI input, USB Pendrive input, Bluetooth v5.1 support for multi-connectivity. Electronic focus with Remote control from a distance for 30000 Hours long life LED lamp & Ceiling mount facility. Remote control, HDMI cable, cotton swab, cleaning cloth, power cord provided inside the package contents.
PIXAPLAY 18 has a vertical design with a fabric finish and a carry handle fixed to the rear panel.

II. Accessories:

- a. Projector - 1 Unit
- b. Remote Control - 1 Unit
- c. Power Cord - 1 Unit
- d. Cotton Swab - 5 Units
- e. HDMI Cable - 1 Unit
- f. Fabric Cloth - 1 Unit
- g. Computer Laptop: All-in-one PC i5 Processor/8GB/512G SSD or 1TB SSD/win 10/MS office/24" Monitor(HP), (UPS 1 KV Microtek)

42	Writing board (white) – 01 No.
	I. White magnetic marker writing board II. Color : white III. Board size: 6 x 4 ft (1800 x 1200mm)
43	Chair for Trainee -30 Nos.
	I. Steel Cushion chair with arms
44	Table for Trainee – 15 Nos.
	I. Wooden table size (60x30x30)
45	Racks for Store – 05 Nos.
	I. Mild steel rack II. Height: 6ft. III. No. of layers: 5 IV. Layer size 3x1.5ft V. Load capacity per layer 50-100kg.
46	Chair for faculty – 03 Nos.
	I. Office Chair With arms, high back revolving II. Adjustable height.
47	Table for faculty – 02 Nos.
	I. Office table featuring stylish design & functional work tables perfect for office. Made of engineered wood table with double drawer. II. size (60x30x30)
48	Computer Sets.-40 Nos.
	I. All-in-one PC i5 Processor, 13 gen. intel (R) core/8GB/512G SSD or 1TB SSD/win 10/MS office/24" Monitor, (UPS 1 KV) (1 st preference for HP Brand)

Member



I/C Fire Prevention Wing,
HQ(F&ES), Itanagar (A.P)

Member



Reserve Officer,
HQ(F&ES), Itanagar (A.P.)

Member



Officer In- Charge
Fire Station Itanagar (A.P.)

Chairman



Assistant Director
Fire & Emergency Services,
A.P. Itanagar