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- 1- foHkx dk uke& i fyl egkfun'skd dk dk; ky;] fcgkj] i Vuk A
- 2- foKki unkrk dk i nuke , oairk& i fyl egkfujh{k d ds l gk; d %D; 0% fcgkj] i Vuk A
- 3- fufonk i kflr dh frfFk , oal e; & fnukd&07@02@2014] 14-00 cts rd A
- 4- fufonk [kkyus dh frfFk , oal e; & fnukd&07@02@2014] 16-00 cts A
- 5- fufonk i kflr dk LFkku& i fyl egkfun'skd dk dk; ky;] fcgkj] i Vuk ds dk; ky; Hkou ds eq[; }kj ij j [kh fufonk i s/ha

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S.N.	Item name	Specification	Qty
1	Wooden spine board full and half with vetero	Specification may be obtained from this office. or on website www. Biha rpolice. bih.nic.in	30
2	Kit carrying bag nylon		90
3	Full kit bag hard		18
4	Mankin Face shield 100cc/pckt		54
5	Pneumatic Splints Set		30
6	Disaster management Kit		200
7	Emergency rescue stretcher		60
8	ECG Machine with analyser		15
9	Oxygen Concentrator		15
10	Pulse Oxymeter		15
11	Nebuliser		15
12	Infantry pack (CPR Manikin -5 pes with lungs bag)		30
13	Squadron Plus (CPR Manikin) 5 pcs with lungs bag		30
14	Delux OB Manikin		5
15	Crow bar 24"		2400
16	Crow bar 36"		2400
17	Extension Cord		72
18	Safety vest		500
19	Knee Pad cushion 1"		144
20	Fire Extinguisher 20lbs		100
21	Exhaust fan		10
22	Full body harness		240
23	Traffick cones		240
24	MFR Box 48"		240
25	Hard toe steel shank boots		780
26	Water bottle (lightweight with protective carrier element)		30
27	Infalatable motor rescue boats small (10 seated)		36
28	Infalatable motor rescue boats small (10 seated)		36
29	Life jackets		1080
30	Life buoys		1080

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TERMS & CONDITIONS OF SHORT TIME TENDER NO. 25/2013-14

- 1-Tender of the firms situated inside /out side the State will be accepted with the condition that if their tenders are approved, the firm shall get itself registered with Commercial Tax Department, Bihar before the purchase order is issued.
- 2-The tender should be submitted in two parts, (1) Technical bid and (2) Financial bid duly Sealed in two separate envelopes super scribed as technical bid and financial bid. The rates shall be quoted in the Financial bid. All charges like BST/CST/Service Tax /VAT etc. shall be clearly mentioned but net rate (in figures and words) including all taxes and duties shall be quoted. Vague offers like indicating taxes "as applicable" will be summarily rejected. There shall be no cutting, over writing or correction on the rates. All relevant papers/certificates/specifications etc. of items should be enclosed in technical bid.
- 3-The technical and financial bids for each item **should be submitted separately in separate envelopes.** The technical and financial bids for more than one items submitted together in the same envelope shall be summarily rejected. If the financial bid is submitted in the same envelope containing the technical bid then also it shall be summarily rejected.
- 4-The technical and financial bids should be put in two separate sealed envelopes and the envelopes should be marked " Short Time Tender No. 25/2013-14" (Technical Bid) and marked " Short Time Tender No 25/13-14" (Financial Bid) along with the name and address of the firm. The sealed envelopes containing the technical and the financial bids should be sent in an another sealed envelope which should be marked as marked " Short Time Tender No. 25/2013-14". This envelope should not bear the name and address of the firm.
- 5-Up-to-date Income Tax returns (Saral) and a photocopy of PAN of the participating firm should be submitted with the technical bid. I.T. return should have stamp and signature of the concerned department, whether filed manually or electronically.
- 6-The turn over of the firm for the 2012-13 financial year should be at least double the amount of the supply order which is being issued. A copy of the profit and loss a/c of the firm for the 2012-13 financial year certified by a Chartered Accountant should be submitted along with the tender. If the tenderer is authorized dealer and authorized supplier of manufacturing firm, then the certified details of the turnover of authorizing firm will be accepted.
- 7- If there is some discount in the price of any item, it should be deducted from price itself and should not be quoted separately.
- 8-If the product is on DGS & D rate contract then a copy of the contract be attached and pricing be done with all taxes including Bihar Sales Tax.
- 9-A copy of test report for the product issued by a competent authority with in last one year should be attached with the technical bid. In case of BP items test report of TBRL will only be accepted.
- 10-All items will be received at Central Clothing Store, Patna, therefore price should be quoted for Central Clothing Store, Phulwarisharif, Patna.
- 11-Firms will have to deposit a sum of rupees 25000/- (Twenty five thousand) only as an earnest money in the form of postal saving passbook / NSC/Bank draft duly pledged in favour of the undersigned along with the quotations.
- 12-Technical bids will be opened on 07.02.2013 at 16.00 PM in the office chamber of the undersigned. Representatives of the tenderers may remain present at the time of opening of the technical bid.
- 13-The technical bid will be opened first and if it is found as per tender conditions, it will be put before Central Purchase Committee. The firm may have to participate in discussions with this committee and / or be required to demonstrate the quoted product. Any paper / document will not be accepted after opening the tender.
- 14-Successful firm will have to enter into an agreement after depositing a sum of 5% of the total value of the stores as security money in the form of Postal Saving Pass Book/NSC/Bank Guarantee duly pledged in favor of undersigned.
- 15-The firm will be required to provide satisfactory after sale service.
- 16-The firm will be required to supply all the items within 90 days from the date of placing order.
- 17-Payment for the delivered items will be made after receiving OK report from the Inspection Committee.
- 18-The firm whose quotation is approved shall be issued A/T. Purchase order shall be issued only after the firm enters into an agreement with the undersigned. Terms & Conditions of the agreement shall be intimated in the A/T.
- 19-Only such manufactures/authorized dealers and authorized suppliers of manufacturing firm who fulfills the above conditions should quote for supply of items.
- 20-Updated Technology at the time of supply change in condition.
- 21-Hands on Training of the user group by the firm shall be ensured.
- 22-D.G.. of Police Bihar, Patna reserves the right to reject any or all the quotations partially or fully without assigning any reason thereof.
- 23-The Quantity indicated may increase or decrease at the time of issuing purchase order.

Sd/-
A I G of Police (Q)
Bihar,Police.

1. Specification of Wooden Spine Board Board full and half with vetero

Dimension : 1830 mm (L) , 420 mm (W)
 Weight : 5 Kg
 Capacity : 200 kg
 CT/MRI Compatible and radio lucent
 Material : Carbon fiber or fiber glass material
 Separate hand holds and restraint holds with smooth edges for easy and comfortable lifting with Velero straps.

2. Specification of Kit carrying bag

Qualitative Requirements	BIS Code No.
<ul style="list-style-type: none"> ▪ Material: synthetic heavy corduroy water proof ▪ Dimensions: 20" x 15" x 15" ▪ Side pouches with individual plastic zippers; additional compartment on top ▪ Inside upper cover divided with multiple straps for holding instruments, bottles, medicine kits upright ▪ Lower compartment divided into three' one of 14 " and other 6 " subdivided into two; ▪ Two side carry handles as well adjustable shoulder straps; Base of bag having rubber castors/rests to avoid direct contact with ground 	

3. Specification of Full kit bag (hard)

Qualitative Requirements	BIS Code No.
<ul style="list-style-type: none"> ▪ Material: thermosetting, plastic; non breakable box ▪ Dimensions: 24" x 12" x 18" ▪ Locking mechanism: Press lock and quick release clamps ▪ Centrally located handle with side holds also box to open from Central top as well one of the sides ▪ Sliding compartments inside with at least 2 trays one 4" from top ▪ And second 5" from first. 	

4. Specification of Mankin Face Shield (100 PCs)

- ❑ Rectangular Barrier device used by rescuer when giving mouth-mouth/mouth –nose ventilation in patients.
- ❑ Size 7"x12" outer synthetic layer and 5"x7" central rectangular sieve like filter of non absorbent white plastic;
- ❑ The outer layer has a central hole of 1.5" diameter in the area of contact with patient mouth/nose and rescuer mouth with intervening filter layer
- ❑ Package : Single use disposable in sterile packing.

5. Specification of Pneumatic Splint Set

- Material radio lucent, light quality plastic.
- With inflation valve and closing clamp, fixing by radio lucent zipper.
- Set of six sizes hand and wrist half arms, full arms, foot and ankle, half leg and full leg, reusable sets with carry bag.

6. Specification of Disaster Management Kit

GENERAL

The Disaster Management Kit is a handy and easily carrying toolbox containing multi utility tools/equipments. The Disaster Management kit should have following tools along with the quantity of each equipments mentioned against each.:-

a) Multi purpose tools : A set of versatile combination of following tools.

- | | | |
|----------------------|---|--------|
| i. Axe (Medium) | : | 01 No. |
| ii. Hydrant key | : | 01 No |
| iii Spanner Wrench | : | 01 No |
| iv Pry bar | : | 01 No |
| v Vise Grip | ; | 01 No |
| vi Gas shut-off gear | : | 01 Set |

Emergency Kit for handling chlorine leakages in toner as well as cylinder comprising of:-

S.No.	Particulars	Nos
1.	Big Hood with vent valve	1
2.	Rubber Gasket (OD-155mm-ID-90mm)	3
3.	Tie Rod Assembly	
4.	Tie Rods	2
5.	Tie Rods Washers	8
6.	Tie Rods Pieces	4
7.	Angles	2
8.	Stud with welded handle	1
9.	Small Hood	1
10.	Yoke	1
11.	Stud	1
12.	Rubber Gasket (OD-155mm-ID 60MM)	3
13.	Blind Fiber Gasket (1" O /	3
14.	Fiber Gasket (1.25" OD- 0.75"ID)	3
15.	Cap Nut	1
16.	Steel Patch Plate	1
17.	Rubber Gasket (150 mm x 80 mm)	2
18.	Round Yoke Plate	1
19.	Cap Serew	1
20.	Chain (96" long)	2
21.	Drift Pins (in 2 Sizes)	2
22.	Hammer	1
23.	Valve Cap	1
24.	Youke Clamp	1
25.	Flexible Copper Tubing to draw chlorine	1
26.	Nozzle	1
27.	Teflon Tape	1
28.	Canister Gas mask	1
29.	PVC Hand Gloves –Pair	1
30.	PVC Apron	1
31.	Gas Tight Rubber Goggles	1
32.	Ammonia Solution Bottle	1
33.	Valve Spindle (10mm square)	1
34.	Spanner-30 x 32 mm	1
35.	Spanner – ¾ " x 5/8 " BS	1
36.	Instruction Sheet	1
37.	Steel Box	1
38.	Fiber Gasket (1" OD-1/2 "ID)	3
39.	Fresh Airline Respirator	1
40.	Base Plates	2
41.	Universal Ring	1

b) Utility Holster : This should be rugged, water resistant. The utility holster should have large front pockets, two elastic loops, D ring and protective cover flap with hook and loop closure to accommodate most of the barrel-shaped mini flashlight.

- c) Overall chemical Suits (PVC) EN Complaints - 03 Nos
d) Gloves for rescue job (Soft leather) EN Complaints - 03 pairs
e) Gloves for handling hazardous chemical (PVC) EN Complaints - 03 pairs

NOTE TO TENDERER :

- The tenderer shall indicate the make/model in their offer.
- The tenderer shall furnish the clause-by-clause compliance statement. In case there is any deviation the same should be clearly brought out in the offer.
- They shall furnish the relevant EN Compliance certificate of the product offered.
- Technical manual comprising of servicing details shall be supplied with system

7. Specification of Emergency Rescue Stretcher

Qualitative Requirements	BIS Code No.
The Stretcher should have following features :- a) Foldable and compact with built-in flotation. b) Color coded patient restrain straps with double locking Quick release safety buckles and built in head restraints	

system.	
c) Corrosion resistant stainless steel frame with nylon cover and case.	
d) Vertical hoisting sling.	
e) Individual replacement components.	
f) Weight should not be more than 20 Kgs.	

8. Specification of ECG Machine

Power Supply

AC Mains/Built in Rechargeable battery operation

Mains : 110/220v \pm 10% 48-60 Hz

Rechargeable battery : 2x6.3 V; 2.6 Ah;

Power consumption : 22 VA

Fuses : Battery fuse-1.25 A;(220 V) or 0.44 (110W)

Recording

Paper : Thermo sensitive

Paper width : 50 mm (recording : 40 mm)

Recording speeds : 25 and 50 mm /sec (switch selection)

Recording length on RC Battery : 100 m at 25 mm/Sec or 200 m at 50 mm/sec for typical one battery charge.

LEAD SELECTION

Leads : Electronic 12 leads selection

Selector position : Test, I,II,III, aVR, aVL, aVF,V

FREQUENCY RESPONSE

Frequency response : 0.3 Hz to 120 Hz (AHA) without Filter
0.3 to 100 Hz (IEC) with filter

Time constant : 1.5 seconds

Filter : Muscle-tremor filter

SENSITIVITY

Sensitivity : 1.5 mm/mV or greater, continuously variable from 0 to 15 mm/mv with marking for 10 mm/mV calibration.

Calibration : 1 mV push-button, generated by electronic circuitry.

Damping : 5-10 % overshoot

Input impedance : 10 M ohms

CMMR : Better than 80 Db

GENERAL:

Dimensions : 297 x 210 x 80 mm

Weight : 4.2 kg without batteries

ACCESSORIES

Standard : Patient cable 1 No
Earth Cable 1 No
Clipon electrodes 4 Nos
Chest electrode with rubber Bulb 1 No.
Accessory case 1 No
Cardi-Jelly bottle 1 No
Recording paper (20m roll) 1 No.
Battery charger /power pack 1 No
Instruction manual 1 No.
Dry-fit rechargeable battery Optional

9. Specification of Oxygen Concentrator

Dimension : 28" h x 16" w x 14" d

Weight : 52 lbs

Delivery Rate : ½ -5 liters (1/2 Liter increments)

Oxygen % : 93% @ 1-5 liters (+/-3%)

Electric Requirement : 115 V , 60 Hz

Power Consumption : 400 watts average.

- Pressure- relief valve and thermal protection on the compressor.
- Filtration for longer bed life and better oxygen purity.
- Increased flow rates, decreased operating temperatures and longer life with less cup seal wear.
- Double-insulated unit : two prong plug
- Humidifier port helps prevent humidifier bottle and connection breakage.
- The opening is wide to make it easy to connect tubing or humidifiers
- High/Low pressure alarms and power failure alarm.
- Long cannula while maintaining an accurate flow setting (maximum 50 feet)
- Audible and Visual sensing device for low pressure, power fail and power on.

10. Specification of Pulse Oxymeter

MESAUREMENT RANGE:

SPO₂ 1-100 %

Pulse Rate 20-300 beats per minute (bpm)

Accuracy

SpO₂

Adults 70-100 % + 2 digits

0-69% specified

Neonates 70-100 % + 3 digits

0-369 % unspecified.

Pulse Rate

20-250 bpm + 3 bpm

asses 68% of the population.

Power Requirements

100-240 VAC

50-60 Hz

15 VA

Pulse Rating : 250 A/2A

Battery Type Lead acid with 3 hrs of Battery Backup

Operating Temperature

Instrument : 10 to 45 ° C

Sensor within physiologic range for specified accuracy.

Weight : 1.3 Kg (max) without pole amount screws

Size : 60 (H) x 200 (W) 120 (D) mm % SaO₂:

Range : 0 % 100 %

Resolution : 1%

Accuracy : 50-60 % , Range + 3% , 70-100 % Range + 2%

Trends : Pulse Rate-1 hr, 12 hr, 24 hr, SAO₂,-1 hr, 12 hr, 24 hr

Numeric data display : SPO₂ & Pulse Rate (LED +LCD) with backlit LCD display for plethysmograph with adjustable brightness.

Auto gain control system.

11. Specification of Nebuliser

- Aerosol with piston Electro compressor
- Nebulising speed : 1 cc in 3 minutes
- Pressure 1:1 bar
- Air flow 15 liter /minute
- Noise Level : 60dB
- Granulometric size of medication : 1-10 microns by means of multi PIPSER Component.

12. Specification of Infantry Pack (CPR Manikin)-5 Pcs with Lungs Bags

Adult Manikin set for CPR training with provision of maneuvering airway opening skills, air ventilation and chest compression. It should be made up of good quality of rubber and plastic . It should be composed of 05 parts:

- Length of the mannequin : 50 –70 Cms
- Width of the Chest : 30-40 Cms
- The mannequin should be in 5 parts:-
 1. **HEAD**
 - Head should be made up of a good plastic quality.
 - Size : Length : 19 –25 cms
 - Width : 12-15 Cms
 - It should be screwed with the neck with a facility for extension.
 - Mouth should be opened by 2.5 cm to 4 cm for inserting lung bag
 - If possible mandible or lower jaw should be movable.
 - Nose should be made up of such material that can be pinched.
 - Eye ear should be well impressed.
 2. **MAIN BODY (BACK)**

It is the posterior portion of the body to which head and chest portion is fixed.

 - Should be made up of good quality of plastic with a circular hole in the center of the torso to place the piston.
 - At the end of the neck there should be a provision to screw the head.
 - There should a provision to attach chest part over the upper portion of back.
 - Length of the back + 48-68 cms
 - Width : 28-40 cms
 - Length of the neck : 16cms – 18 cms.
 3. **CHEST**
 - Should be made up of good quality of rubber
 - Can be compressed by 4-7 cms
 - Clavicle, xyphoid process, sternum, navel and ribs should be with proper landmarks.
 - Left right chest should be well impressed.
 - There should be cleft in the center of the chest so that airway system (lung) can be inserted. Length of the chest 30-45 cms, Width 28-38 cms.
 4. **PISTON**
 - Should be made up of good quality of sponge.
 - Should properly fit over the hole of the back

- ❑ Dia of the piston 12 to 15 cms (Subject to fit over the hole on the back)
- ❑ Height of the piston : 7-10 cms.

5. **LUNG BAG:**

- ❑ Should be made up of good quality of polyethylene.
- ❑ It will be in three parts

6. **MOUNTH**

Rectangle in shape in shape with two flaps that be fixed over the mouth to prevent air entry from out sides.

- ❑ Size : Length ; 12 –13 cms
- ❑ Width : 4-7 cms

The mouth leads into windpipe.

7. **Windpipe**

Should be spherical in shape when inflated.
Circumference ; 10-12 cms

8. **LUNG** : Spherical in shape when inflated.
Radius ; 6-7 cms

9. **INSERTER:**

- ❑ A flat plastic strip for inserting lung bag through of the mannequin into cleft of the chest.
- ❑ Length : 48-52 cms
- ❑ Width : 3-4 cms

13. Specification of Squadron Plus (CPR Manikin)-5 Pcs with Lungs Bags

Adult Manikin set for CPR training with provision of maneuvering airway opening skills, air ventilation and chest compression. It should be made up of good quality of rubber and plastic . It should be composed of 05 parts:

- ❑ Length of the mannequin : 50 –70 Cms
- ❑ Width of the Chest : 30-40 Cms
- ❑ The mannequin should be in 5 parts:-

1. **HEAD**

- ❑ Head should be made up of a good plastic quality.
- ❑ Size : Length : 19 –25 cms
- ❑ Width : 12-15 Cms
- ❑ It should be screwed with the neck with a facility for extension.
- ❑ Mouth should be opened by 2.5 cm to 4 cm for inserting lung bag
- ❑ If possible mandible or lower jaw should be movable.
- ❑ Nose should be made up of such material that can be pinched.
- ❑ Eye ear should be well impressed.

2. **MAIN BODY (BACK)**

It is the posterior portion of the body to which head and chest portion is fixed.

- ❑ Should be made up of good quality of plastic with a circular hole in the center of the torso to place the piston.
- ❑ At the end of the neck there should be a provision to screw the head.
- ❑ There should a provision to attach chest part over the upper portion of back.
- ❑ Length of the back + 48-68 cms
- ❑ Width : 28-40 cms
- ❑ Length of the neck : 16cms – 18 cms.

3. **CHEST**

- ❑ Should be made up of good quality of rubber
- ❑ Can be compressed by 4-7 cms
- ❑ Clavicle, xyphoid process, sternum, navel and ribs should be with proper landmarks.
- ❑ Left right chest should be well impressed.
- ❑ There should be cleft in the center of the chest so that airway system (lung) can be inserted. Length of the chest 30-45 cms, Width 28-38 cms.

4. **PISTON**

- ❑ Should be made up of good quality of sponge.
- ❑ Should properly fit over the hole of the back
- ❑ Dia of the piston 12 to 15 cms (Subject to fit over the hole on the back)
- ❑ Height of the piston : 7-10 cms.

5. **LUNG BAG:**

- ❑ Should be made up of good quality of polyethylene.
- ❑ It will be in three parts

6. **MOUNTH**

Rectangle in shape in shape with two flaps that be fixed over the mouth to prevent air entry from out sides.

- ❑ Size : Length ; 12 –13 cms
- ❑ Width : 4-7 cms

The mouth leads into windpipe.

7. **Windpipe**

Should be spherical in shape when inflated.
Circumference ; 10-12 cms

8. **LUNG** : Spherical in shape when inflated.
Radius ; 6-7 cms

9. **INSERTER:**

- ❑ A flat plastic strip for inserting lung bag through of the mannequin into cleft of the chest.
- ❑ Length : 48-52 cms
- ❑ Width : 3-4 cms

14. Specification of Deluxe OB Manikin

It is used to import training of normal delivery and childbirth complications. It should have a model of female abdomen with abdomen layer as a non transparent flap, which should have an arrangement to attach with the remaining portion of the model by press button.

Consists of 07 parts:-

1. MAIN BODY

- ❑ Should be made up of rubber showing the landmark of lumber, sacrum, spine, pubic symphysis , pelvic girdle, with oval shaped perineum opening with a dia of 13-15 cms.
- ❑ Both the thigh should be upward raised and apart.
- ❑ The main body should be covered from abdomen to perineum.
- ❑ Length of the main body – 35 to 40 cms
- ❑ Depth of the main body showing abdomen 10 to 12 cms.

2. ABDOMEN LAYER

- ❑ It should be meant to cover the hollow abdominal space of the main body .
- ❑ It should be made up of non-transparent rubber flap, which should have an arrangement to attach with the main body with press buttons.
- ❑ It must have the provision for the cavity so that uterus and foetus can be placed in abdominal layer to simulate the pregnancy.

3. UTERUS

- ❑ It should be a hollow plastic bag containing a fetus shaped baby made up of rubber.
- ❑ It should be a shape that it could be placed inside the abdominal layer to look like a pregnant lady.
- ❑ There should be preservative inside the uterus.

4. INFANT

- ❑ It will be used to show simulated delivery.
- ❑ It should be hollow.
- ❑ Made up of rubber with a facility for filling air with an air valve attach with foot.
- ❑ A provision to attach umbilical cord over navel point.
- ❑ A separate manual air-filling pump should be provide to fill air in the infant
- ❑ Length of the infant- 50 to 60 cms.

5. UMBILICAL CORD

- ❑ It should be made up of flexible plastic tube.
- ❑ Length of the tube : 65 to 75 cms
- ❑ Dia of the tube : 2 to 2.5 cms
- ❑ It should contain a facility to attach with the navel of the infant at one end and to attach with placenta at the other end.

6. PLACENTA

- ❑ A disc shaped placenta should be made up of good quality of rubber
- ❑ Having its colour and impression with a provision to attach the umbilical cord with it.

7. PERINEUM FLAP

- ❑ It should be made up of rubber for covering perineum opening with a facility to attach and detach with perineum.
- ❑ Perineum should have an cut (Vaginal Opening) so that could show the impression of vaginal opening.

15. Specification of Crow bar 24”

Qualitative Requirements	BIS Code no.
a) Size : Length 24” b) Diameter of rod: 1” c)Material : made of tempered steel d) Attachment: Claw attachment for removing nails <u>BIS Specification</u> e) The bars shall be heat treated to obtain a minimum hardness value of 320 HV. f) The material shall be suitable quality steel such as wrought steel g) The bars shall be forged clean & in one piece. h) Cutting ends of the bars may be rounded off & finished ground.	IS-704

16 . Specification of Crow bar 36”

Qualitative Requirements	BIS Code no.
a) Size : Length 36 “ b) Diameter of rod: 1” c) Material: made of tempered steel d)Attachment: Claw attachment for removing nails <u>BIS Specifications</u> e) The bars shall be heat treated to obtain a minimum harness value of 320	IS-704

HV. f)The material shall be suitable quality steel such as wrought steel g) The bars shall be forged clean & in one piece. h) Cutting ends of the bars may be rounded off & finished ground.	
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17. Specification of Extension cord

Qualitative Requirements	BIS Code no.
a) Type: With one 15 amp & two 5 amp switch socket fixed on wheel of diameter 1 feet with handle b)Handle: Insulated handle of 6" to provide manual grip c) Cord : PVC wire 8 mm, 25 meter length with 2/3 pin plug, with wrapping arrangement on wheel.	-----

18. Specification of Safety vest

Qualitative Requirements	BIS Code no.
a) Material : Sleeveless jacket made of red fluorescent color cloth with white strips b) Size : Extra large	-----

19. Specification of Knee pad Cushion 1"

Qualitative Requirements	BIS Code no.
a) MATERIAL:- made of hard plastic with 1" sponge cushion inside with pair of straps for securing knee pads b) Application :- To fasten on the knees to protect from injury	-----

20. Specification of Fire extinguisher 20 LBS

Qualitative Requirements	BIS Code no.
a) Size/Weight : 10 kg b)Type : Dry powder chemical type <u>BIS Specifications.</u> c) The shape of the body shall be cylindrical d)The top dome and bottom end shall be dished outward(convex) without reverse curvature. e)non ferrous metal parts shall be brazed to the body. f) the body to be made of mild steel g)the dry powder used of BC Class or ABC class shall confirm to IS 4308 h)Each extinguisher shall be painted fire red confirming to shade No. 536 of IS-5	IS 2171

21. Specification of Exhaust Fan

Qualitative Requirements	BIS Code no.
a) Size :- 12"x (30 cm) b) Motor:- Single phase c) Power :- 2 hp	-----

22. Specification of Full Body Harness

GENERAL SPECIFICATION:

It should be useful for safe working on Heights & protection against fall. The shoulder and thigh straps should be easily identified by two different colours. It should be Fabricated for high shock absorbing and impact dispersing capacity while working-before, during and after a fall. It should have a specially designed seat strap for optimum comfort. It should have Energy Absorbing Dorsal ID.

SPECIFICATION

Its Anchor point should be by means of 2 chest attachment triangular-ring and a Dorsal attachment triangular -ring . It should have adjustable shoulder and thigh straps.

ACCESSORIES

If required it should be available with accessories like Kinetic Energy absorbers, anyards, Karabiners.

NOTE TO TENDERER :

1. The tenderer shall indicate the make/model in their offer.

2. The tenderer shall furnish the clause-by-clause compliance statement. In case there is any deviation the same should be clearly brought out in the offer.
3. They shall mention the relevant BIS/EN/DIN/UL certificate of the product offered .
4. Technical manual comprising of servicing details shall be supplied with system
5. Relevant Test certificates shall be provided from a Govt. approved laboratory or from the manufacturer, along with their offer.

23. Specification of Traffic Cones

Qualitative Requirements

The traffic cones should be made by suitable & durable plastic, the base of which should be heavy rectangle to provide stand alone stability with conical body of height not less than 2 ft. It should be painted with orange fluorescent paint with retro reflective strip of 1 to 2 inch width around the conical body at suitable height.
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24. Specification of MFR box

Qualitative Requirements

Material : Fabricated from thermo setting plastic Like bakelite of yellow/orange color b) Size :- 18" x 10" x 10" c) Shape/Arrangement:- It should have press lock arrangement for its opening. It should have handle centrally located at the top for carrying from one place to another. The inner chamber of the box should have at least 2 trays, one tray fixed at the depth of 4" from the top and the other tray at the depth of 5" from the first tray. This tray should have walls running parallel to the width. The afore said walls should be of similar material as that of tray and its depth/ height should be suitably adjusted for easy sliding. The box should open from top as well as from one of its sides. -----
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25. Specification of Hard Toe Steel Shank Boots

It should give comfort, safety and performance, steel toes Shoe. Oil resistant, layered sole which should provides extreme traction, Superior cushioning.it may have Nylon lining ,Cushioned insole &Deep bar-tread outsole .

It should have Full Grain Leather uppers , Steel Shank. It should have Electrical hazard protection. Hooks & eyelets set on steel washers. Leather upper. Oil & slip resistant polyurethane outsole which should provides lasting performance while minimizing fatigue. It should be durable.

It should be built from Lightweight materials which make them easy to wear. Removable Comfort Core air flow orthotic insert. Soft leather padded collar for added comfort. Steel toe Class may be I75/C75 or better.

26. Specification of Water Bottle (lightweight with protective carrier element)

- Designed to carry on the pack
- It should have Illuninite panels for improved visibility and safety
- It should have a fuel window for bladder level
- It shall have extra wide bladder port and quick connect access.
- It must have Insulated bladder compartment for keeping water cool.
- Ergonomic back panel w/ perforated foam for improved ventilation.
- Contoured shoulder straps for comfort and breath ability
- Adjustable sternum strap
- Light clip strap
- Large cargo compartment with organizer
- Magnetic clip for valve attachment
- Bungee straps for extra storage
- Adjustable to fit medium-large body types
- All the materials used in the construction of outdoor back
- Carry water bottle should be durable
- These bottles should be lightweight and made from the highest quality materials.
- It should with stand disinfections of the bottle using bleach
- The weight of the bottle should not be more than .4 lbs
- It should be provided with a pipe which can drawn water
- While the bottle or canteen is on the back.

27. Specification of Infalatable motor rescue boats small (10 seated)

INTRODUCTION

The rescue Boat should consists of “U” shaped tube fabricated using high strength coated. The Rescue Boat is designed to Carry at least 10 person for rescue purpose in the event of SOS.

DESIGN AND MATEIRAL :

The Rescue Boat should consists of “U” shaped tube fabricated using high strength coated fabrics. A transom board of marine plywood, on which an out board engine can be counted is bonded to the tube and floor. A detachable keel and floor boards are used to keep the floor rigid. The buoyancy tube is divided into five air tight compartments each provided with a combined inflation/deflation valve and a safety relief valve. The boat should be provided with one set of oar and paddles for manual riding. The boat should be so designed that it will remain afloat when fully loaded even its two compartments are deflated.

DIMENSION

Overall length	: 4.5 to 5 mts.
Width	: 1.75 to 2 mts
Tube Dia	: 0.45 to 0.55 mts
Inside length	: 3.00 to 3.25 mts
Capacity	: 10 persons
Weight	: 140 to 160 kg

1. The design and construction plans are to be approved by IRS
2. Material should be approved
3. Construction to be done under survey and certificate to be furnished
4. Suitable identification on boat for co-relation with the certificate to be furnished.
5. Requirements of Fast Rescue Boat as per IMO LSA Code to be followed.

NOTE TO TENDERER :

1. The tenderer shall indicate the make/model in their offer.
2. The tenderer shall furnish the clause-by-clause compliance statement. In case there is any deviation the same should be clearly brought out in the offer.
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29. Specification of Life Jacket

QUALITATIVE REQUIREMENT
<p><u>GENERAL</u> It should be useful in sea , in case of Floods, Safety measure for vessels & Sea Mishaps. It should be chemically resistant to sea water and petroleum products. Its special construction should allow quick turning time in case of being knocked unconscious. It should have Light that gets automatically activated when in contact with sea water/petroleum products. The light should have an automatic electronic water activation system and is capable to work between – 1degree to + 30 degree C.</p> <p><u>TECHNICAL SPECIFICATIONS</u> The inner foam should be made of soft polyurethane foam. It should have high visibility orange colour fabric, which enhances visibility . the Retro-Reflective Tape should be Solas approved having floatability : at least 15.5 kilos, Size : 80x 37x 10 cms approx.</p> <p><u>TESTING</u> It should be prototype . Tested i.e. Temperature cycling test, Drop Test, Oil Resistance Test, Fire Test, Floatation Test , Strength Test. It should be 24 hr water immersion tested. It should be performance Tested.</p> <p><u>APPROVAL</u> Life Jacket & Light should be MMD approval & Stamped Individually.</p>

30. Specification of Life Buoys

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QUALITATIVE REQUIREMENT
<p><u>GENERAL</u> It should be useful in Deep Sea, In case of Flood , Safety measures for sea vessels & sea Mishaps. It should be totally moisture proof and non –inflammable.</p> <p><u>SPECIFICATIONS</u> It should be manufactured from durable High visibility orange synthetic material, which requires no maintenance. The Retro-reflective Tape used should be Solas approved. Which helps to identify victims in distress. Its ID should be at least 45 cms, and OD should be at least 70 cms . Having width: 10 cms . Floatability: more than 17 Kgs.</p> <p><u>TESTING</u> It should be prototype Tested i.e. Cycling Test, Drop Test, Oil Resistance Test, Fire Test, Flotation Test, Strength Test. It should be 24 hrs water Immersion tested.</p>