

Directorate General  
Central Industrial Security Force  
(Ministry of Home affairs)

Pt. Deendayal Antyodaya Bhavan,  
CGO Complex, Block No.16,  
Lodhi Road, New Delhi - 03

**MEDICAL BRANCH**

No.M-20015(73)/CISF/Med.Dir./QRs/2020- 195

Dated: 01.02.2021

To,

The AIG/Tech,  
CISF HQrs., New Delhi

Subject:- **HOSTING OF DRAFT QRs/SPECIFICATIONS AND TRIAL  
DIRECTIVES OF MEDICAL EQUIPMENTS ON CISF & MHA  
WEBSITES**

Enclosed find herewith a soft copy of Draft QRs/Specification and Trial Directives of '**110 Medical Items**' prepared by Board of Medical Officers detailed by ADG(Med), CAPFs, vide their letter No.27012/12/ADG(Med)/DA-3/2020/1451 dated 21.09.2020 for hosting the same on CISF and MHA websites with a link showing 'DRAFT QRs/SPECIFICATIONS AND TRIAL DIRECTIVES OF MEDICAL ITEMS' for 15 days. Firms/Vendors may send their comments/objections/ suggestions to DIG/Director (Medical), CISF HQrs., CGO Complex, Lodhi Raod, New Delhi (email ID – [dir-med@cisf.gov.in](mailto:dir-med@cisf.gov.in)).

2. The action taken report therein may please be intimated to this office please.

Encls:- As above.

*(Signature)*  
01/2/21

(Dr. Ashok Kumar Trivedi)  
DIG/Director (Medical)

**Copy to:-**

1. The Technical Director/NIC, : For kind information and hosting the same  
NDCC-II Building, on MHA website for 15 days.  
Jaising Road, New Delhi.
2. The ADG/Med., CAPFs : For kind information please.  
R.K. Puram, New Delhi.



## BOARD PROCEEDING

Proceeding of : A board of officers.

Assembled at : Office of Director(Medical), CISF HQrs., CGO's Complex, Lodhi Road, New Delhi.

On the date of : 19.10.2020 onwards.


By the order of : ADG(Med.), CAPFs order No.27012/12/ADG(Med.)/DA-3/2020/1451 dated 21.09.2020.

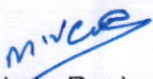
Purpose : To review/draw fresh QRs/Specifications and Trial Directives of '**110 Nos. Medical Items, list attached**'.


Composition of Board :

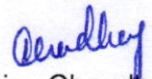
P.O.	Dr. Ashok Kumar Trivedi, DIG/Director(Med.), <b>CISF</b> , CGO Complex, New Delhi
Member-I	Dr. Jalaj Sinha, CMO(SG), FHQ <b>BSF</b> Hosp-II, Tigri.
Member-II	Dr. M Venkata Rao, CMO(SG), CH, <b>CRPF</b> , New Delhi.
Member-III	Dr. A K Sharma, CMO(SG), Base Hospital, <b>ITBP</b>
Member-IV	Dr. Sanjay Chaudhary, Comdt(Med.), 25th Bn. <b>SSB</b> , New Delhi
Member-V	Dr. Jishnu Barua, TC(Med.), <b>NSG</b> M I Room, R K Puram, New Delhi
Member-VI	Dr. Ajit Mukherjee, PSO(LS), <b>BPR&amp;D</b> , Mahipalpur, New Delhi


Pursuant to the orders of ADG/Med., CAPFs, the board assembled at office of DIG/Director (Medical), CISF, CGO Complex, Lodhi Road, New Delhi from 19.10.2020 onwards and proceeded to study and draw QRs/Specifications and Trial Directives of '**110 Medical items (list attached)**' as per enclosed **Appendix-'A'**.

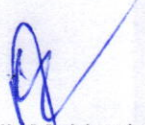
  
(Dr. Jalaj Sinha)  
CMO(SG),  
**BSF**  
Member-I

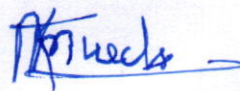
  
(Dr. M Venkata Rao),  
CMO(SG),  
CH, **CRPF**  
Member-II

  
(Dr. A K Sharma)  
CMO(SG),  
BH, **ITBP**  
Member-III

  
(Dr. Sanjay Chaudhary)  
Comdt.(Med.),  
**25th Bn. SSB**,  
Member-IV

  
(Dr. Jishnu Barua)  
TC(Med.), **NSG**  
Member-V

  
(Dr. Ajit Mukherjee)  
PSO(LS), **BPR&D**  
Member-VI

  
(Dr. Ashok Kumar Trivedi)  
DIG/Director(Med.) CISF  
Presiding Officer

**LIST OF 110 MEDICAL ITEMS FOR WHICH QRs/TDs DRAWN :**

S.No.	Name of the medical items
1.	CPR SIMULATOR
2.	MEDICAL EXAMINATION KIT FOR SEXUAL ASSAULT KIT
3.	MEDICINES – QRs/TDs NOT REQUIRED
4.	PORTAL OXYGEN CYLINDER
5.	DELIVERY SET
6.	FOLDABLE STRETCHER
7.	BLOOD CLOTTING PATCH
8.	ENDOSCOPE
9.	PORTABLE DEFIBRILLATOR WITH RECORDER
10.	BITS PORT MOUTH REVERSIBLE LARGE - (ITEM PERTAINS TO VETERINARY SECTION)
11.	MULTI PARAMETER WITH MONITOR
12.	PORTABLE ANESTHESIA KIT
13.	VENTILLATOR & AIR TUBE 7 METERS LONG
14.	BREATHING APPARATUS SET WITH SPARE CYLINDER
15.	BLOOD PRESSURE CUTT ADULT WITH DIAL
16.	POCKET MASKS (CPR)
17.	DRESSING ABDOMINAL 7 ½ INCHES
18.	GAUSE DRESSING VESELINE
19.	GLASSES EYE PROTECTION
20.	DRESSING MULTI TRAUMA 12" X 3"
21.	OBSTERSRICAL KIT DISPOSABLE
22.	SCISSORS PARAMEDICAL
23.	SPONGE STERILE 4" X 4"
24.	BAND AID 1" X 3" PACKETS
25.	MASK UNIVERSAL SIZE
26.	OXYGEN CANNULA NASAL
27.	TRIAGE RIBBON GREEN TAPE 50M ROLL
28.	TRIAGE RIBBON RED TAPE 50M ROLL
29.	TRIAGE RIBBON BLACK TAPE 50M ROLL
30.	TRIAGE RIBBON YELLOW TAPE 50M ROLL
31.	PADDED BOARD SPLINT (WOODEN) – SHORT
32.	PADDED BOARD SPLINT (WOODEN) – MEDIUM
33.	PADDED BOARD SPLINT (WOODEN) – LARGE
34.	AIR WAY ORAL SET 60/80/100 MM
35.	EMERGENCY ACCIDENT KIT
36.	TORCH LIGHT STYLED HANDLE
37.	TORCH LIGHT WAND DISPOSABLE 10 PER PACK – ADULT
38.	TORCH LIGHT WAND DISPOSABLE 10 PER PACK – CHILD



39.	TORCH LIGHT WAND DISPOSABLE 10 PER PACK – INFANT
40.	INFANTRY PACK (CPR MANNEQUIN) – 5 PCS PACK WITH LUNGS BAG (73)
41.	SQUADRON PLUS (CPR MANNEQUIN) - 5 PCS PACK WITH LUNGS BAG (73)
42.	PULSE OXYMETER
43.	B.P. APPARATUS DIGITAL
44.	B.P. APPARATUS MERCURY
45.	OTOSCOPE AND NASAL SPECULUM
46.	SUCTION UNIT WITH ACCESSORIES (MANNUAL)
47.	BAG VALVE MASK ADULT (SILICON, STEAM, AUTO CLAVABLE)
48.	BAG VALVE MASK CHILD (SILICON)
49.	BAG VALVE MASK INFANT (SILICON)
50.	NBC CASUALTY BAG HALF (JSS 1195-01:2012)
51.	STRETCHER SPINE BOARD ACCESSORIES
52.	EXPENDABLE MEDICINES/SURGICAL/LAB ITEMS
53.	WATER POISON DETECTION KIT
54.	RESIDUAL VAPOUS DETECTION KIT
55.	NBC FIRST AID KIT TYPE-A
56.	NBC FIRST AID KIT TYPE-B
57.	TAPE DERMICAL CLOTH-1"
58.	NBC FIRST AID KIT TYPE-2"
59.	WOODEN SPINE BOARD FULL AND HALF WITH VELCRO
60.	FULE KIT BAGS HARD
61.	FLEXIBLE SPLINTS LARGE/MEDIUM/SMALL
62.	PNEUMATIC SPLINT SET
63.	DELUXE OB MANNEQUIN
64.	PERSONAL DECONTAMINATION KIT
65.	CW SAMPLING KIT
66.	NAPS TABLETS (60MG/20 TABLETS PACKS)
67.	AUTO INJECTION SET
68.	INTEGRATED HOOD MASK
69.	DECONTAMINATION KIT
70.	MEDICAL TRIAGE (50 METER) GREEN, RED, BLACK, YELLOW
71.	PLASTIC SUIT WITH CONFO RESPIRATORY
72.	PLASTIC BAGS 2' X 3'
73.	ELECTRONIC STETHOSCOPE
74.	LATEX GLOVES (PAIRS)
75.	GONGE 9 (2 FEET)
76.	VIDEO ANALYTICS
77.	PORTABLE SUCTION EQUIPMENT
78.	STRAP COLLAR - (ITEM PERTAINS TO VETERINARY SECTION)
79.	BAG NOSE LARGE - (ITEM PERTAINS TO VETERINARY SECTION)



80.	BAG NOSE SMALL - (ITEM PERTAINS TO VETERINARY SECTION)
81.	BLANKET SADDLE - (ITEM PERTAINS TO VETERINARY SECTION)
82.	BRIDE WATERING REIN - (ITEM PERTAINS TO VETERINARY SECTION)
83.	GIRTH PA SHORT - (ITEM PERTAINS TO VETERINARY SECTION)
84.	BULTY RUBBER GLOVES (INNER AND OUTER) - (ITEM PERTAINS TO VETERINARY SECTION)
85.	NBC PERREAMBLE SUIT MG-V
86.	NBC COVER BOOTS
87.	NBC CASUALTY BAG FULL
88.	MANUAL SUCTION UNIT (V-VAC)
89.	ECG MACHINE WITH ANALYZER
90.	BODY COMPOSITION ANALYZER
91.	FIRST AID BOXES
92.	HUMAN MEDEICINES – QRs/TDs NOT REQUIRED.
93.	SADDLE XU PATTERN 02 BARSIDE SHAKED NEAR - (ITEM PERTAINS TO VETERINARY SECTION)
94.	HEAD BRTIDON PGS SMALL - (ITEM PERTAINS TO VETERINARY SECTION)
95.	COLLAR HEAD SU LARGE MK-IV - (ITEM PERTAINS TO VETERINARY SECTION)
96.	ROPE MK-I BAGGAGE - (ITEM PERTAINS TO VETERINARY SECTION)
97.	TELECTOR
98.	G M SURVEY METER MIUNI RAD METER
99.	MINI RAD METER
100.	CONTINATION MONITOR (BETA & GAMMA)
101.	BITA GAMMA COUNTING SYSTEM
102.	PORTABLE GAMMA SPECTROMETER
103.	MICRO R SURVEY METER
104.	PORTABLE ALPHA CONTAMINATION MONITOR
105.	IODATED TAB – QRs/TDs NOT REQUIRED
106.	ELECTRONIC DOSIMETER (DIGITAL)
107.	THERMO LUMINESCENT DOSIMETER (TLD)
108.	PORTABLE DECONTAMINATION APPARATUS
109.	BATTERY OPERATED AIR SAMPLER WITH FILLER PAPER
110.	MASK OXYGEN CHILD NON-REBREATHAR (UNIVERSAL SIZE)

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## 1. CPR SIMULATOR

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. The material of mannequin should be of polyvinyl or silicone rubber, free from any hazardous materials. 2. The texture of the mannequin should be as close to the feel of the baby/adult skin as relevant. 3. The Internal parts of the mannequin must be realistically sculpted, anatomically accurate and feel must be smooth/resilient/bony as relevant and suitable for simulation. 4. It should have features to demonstrate opening of airway, head tilt/chin tilt and jaw thrust techniques. 5. Adult CPR Mannequin should have disposable airways. 6. Adult CPR Mannequins should have removable, reusable faces. 7. Adult CPR mannequin should have an indicator which confirms correct chest compression technique. 8. It should have compression spring for consistent resistance.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
Dimensions:	Adult torso		
Mobility, portability:	Yes, portable		
Accessories & spare parts	1)10 nos. reusable mannequin faces. 2)10 nos. reusable airways. 3)50 nos. mannequin wipes.		
Atmosphere/Ambiance (air-conditioning, humidity, dust)	Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%. Capable of operating continuously in ambient temperature of 10 to 40 deg C and relative humidity of 15 to 90%.		
Warranty	3 years against functionality excluding aesthetics.		
Operating manuals, service manuals, other manuals	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language alongwith visit log sheet.		

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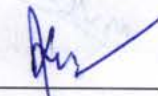
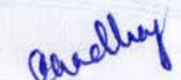


## 2. MEDICAL EXAMINATION KIT FOR SEXUAL ASSAULT KIT

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Detailed Instructions for The Examiner 2. Forms for Documenting the Procedure and Evidence Gathered. 3. Comb 4. Tubes and Containers for Blood and Urine Samples 5. Paper Bags for Collecting Clothing and Other Physical Evidence. 6. Swabs for Biological Evidence Collection 7. A Large Sheet of Paper on Which the Victim Undresses to Collect Hairs and Fibers 8. Dental Floss and Wooden Sticks for Fingernail Scrapings Glass Slides 9. Sterile Water and Saline 10. Envelopes Boxes and Labels for Each of The Various Stages of The Exam	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

## 3. MEDICINES - QRs/SPECIFICATION AND TDs NOT REQUIRED.

## 4. PORTAL OXYGEN CYLINDER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. High pressure seamless cylinders for medical oxygen gas cylinder should be ISI marked, certified by the bureau of Indian standards and approved by the chief controller of explosive, Govt of India 2. Gas cylinders should be labelled as the primary means of identifying the contents of the cylinder 3. Cylinder made from manganese steel 5 ltr capacity 4. Fitted with pin index flues type valve for direct use on anesthesia machine 5. Valve made of brass and chrome plated 6. Working pressure 150kg f/cm <sup>2</sup> at 15 deg.C 7. Hydraulic pressure 250kg f/cm <sup>2</sup> 8. Color code of the cylinder should be as per IS 3933-1966 with updating till date	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	9. Certificates: manufacture certificate, ISI certificate and Dept. of Explosion, Govt of India to be provided for each cylinder at the time of supply 10. Filled with medical oxygen gas of medical grade 11. Matching key cum spanner to release oxygen for each cylinder separately	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided	Board should check or measure the product.	
<b>Warranty</b>	2 years against functionality excluding aesthetics.		
<b>Operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language alongwith visit log sheet.		

## 5. DELIVERY SET

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<b>Components</b> Episiotomy scissors 6" 01 no Tissue cutting forceps 6" 01 no Vulsellum forceps 10" 01 no Suture cutting scissors 10" 01no Cord clamping forceps 12" 02 no Needle holder 8" 01 no Alleys tissue forceps 8" 02 no Sims vaginal speculum 01 no Sponge holding forceps 12" 01 no Toothed forceps 6" 01 no Non toothed forceps 6" 01 no Artery forceps curved 6" 02 no BP handle 01 no	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Training of staff (medical, paramedical)</b>	Sensitivity and nature and procedure of interaction with the patient are to be precise. Detailed guidelines for the steps to follow the medical examination should be made available in English/Hindi		

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## 6. FOLDABLE STRETCHER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<p>1. Stretcher with extractable handles 2. Folds in length and width, 3. Has straps permitting it to be carried like a rucksack (backpack) when folded.</p> <p><b>Materials :</b> Frame tube and feet: anti-corrosion-coated anodized Aluminium</p> <p><b>Stretcher covers:</b> Canvas, polyethylene fabric flexible highly tear resistant, anti-static, flame retardant, disinfectant and liquid proof and washable</p> <p><b>Size:</b> Overall dimensions, open: 2,232x550x137mm with handle removed, ready to use.  Overall dimensions, folded: 1,040x130x180mm Weight: 8.9kg Frame: seamless aluminium structure made of tubing (pole) diameterx thickness approximately 30x1.5mm with padded carrying handles. Lock: Quick-lock-stop for rapid fixation/release of the fixation bars for folding Colour coded patient restrain straps with double locking Quick release safety buckles and built in head restraints system.</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.
Pre-installation requirements:	Nature values, Quality, Tolerance Supplier to perform safety and operation checks before handover,		
Warranty	01 YEAR		
Operating manuals, service manuals, other manual	Advanced maintenance tasks required shall be documented. User, technical and maintenance manuals to be supplied in English/Hindi language along with machine diagrams		

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## 7. BLOOD CLOTTING PATCH

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Should be Fast and reliable 2. Should achieve hemostasis in approximately 1 minute Hold for only 30 seconds 3. Increased patient safety 4. Should be free of human or animal components, eliminating risk of viral transmission 5. Should be Effective in cases of inhibited coagulation 6. Must be useful in both open and laparoscopic procedures 7. No special storage requirements should be required	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
Training of staff (medical, paramedical)	Training of users in handling and basic maintenance shall be provided		
Warranty	Minimum 02-year guarantee against functionality excluding aesthetics		
operating manuals, service manuals, other manuals	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

## 8. ENDOSCOPE

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Vedio processor with light source and monitor 2. Power supply - 200 -240v a/c 3. Must have HDTV imaging 4. Must have real time NBI/FICE/I-Scan 5. Controls for colour adjustment for enhancement and balance settings 6. Iris area selection facility with edge enhancement settings 7. Automatic brightness control 8. Controls to freeze images enhance a portion of frozen image (zoom and post processing) with RGB and digital output 9. Patient and physician data input key board 10. Operates on 300 watts xenon lamp/led	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	11. Halogen/led/xenon emergency lamp should be there 12. Compatibility with gastroscopes and colonoscopes and side viewing duodenoscopes 13. Image storage and retrieval facility and freeze with simultaneously live display of multiple images 14. Preferably 21" LCD color medical grade monitor with picture in picture facility 15. Electronic zoom up to 1.5x 16. Instrument should be light weight (10-12 kg) and compact 17. Processor should be compatible for future upgradation on endosono enteroscope and side viewing duodenoscope	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Forward viewing gastroscopes</b>	1. Direction of view should be zero degree 2. Minimum of 130 degree field of view 3. Depth of field at least from 2 mm to 100mm or better 4. Angulation of tip upto 180 degrees down 90 degree right 100 degree and left 100 degree or better 5. Insertion tube diameter of less than 10mm 6. Distal end diameter of not more than 10.5 mm 7. Instrument channel diameter should be 2.5 mm or more 8. Working length should be atleast 1000mm. 9. Should be compatible with the video system specified 10. Should have separate locks for up down and left right knobs 11. Should be fully immersible in disinfection solution 12. Minimum visible distance of instrument used through channel should be 3 mm or closer from distal end 13. Should be suitable for real time nbi/fice/i-scan 14. Build in hdtv compatible ccd with close focus observation range from 3 mm or better		
<b>Forward viewing colonoscopes</b>	1. Build in GDTV compatible CCD with close focus observation range from 3 mm or closer from distal end 2. Should be suitable for real time NBI/FICE/I-Scan 3. Direction of view should be zero degree 4. Minimum of 140 degree field of view 5. Depth of field at least from 2mm to 100 mm or better 6. Angulation of tip up 150 degrees down 150 degree right 150 degree and left 150 degree or better		

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	7. Insertion tube diameter of less than 13 mm 8. Distal end diameter of not more than 14 mm 9. Instrument channel diameter should be 3.5mm or more 10. Working length should be minimum 1600 mm. 11. Should be compatible with the video system specified 12. Should have separate locks for up-down and left right knobs 13. Should be fully submersible in disinfection solution 14. Minimum visible distance of instrument used through channel should be 5 mm or closer from distal end 15. Auxiliary water jet channel for mucosal cleaning should be there 16. Built in HDTV compatible CCD with close focus observation range from 3 mm or better	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Essential accessories for gastroscop and colonoscope to be quoted separately</b>	1. All these accessories should be BIS approved 2. Reusable metallic biopsy forceps for use with upper GI endoscopes-05 nos 3. Reusable metallic biopsy forceps for use with lower GI endoscope-05 nos 4. Cleaning/instrument channel knob/valve-05 nos for each scope 5. Suction channel knob-05 nos for each scope 6. Air water channel valve-05 nos for each scope 7. Metallic endoscope channel cleaning brush-10 nos for each scope 8. Extra xenon bulb-04 nos, 9. Cytology brush-10 nos for each scope 10. Leakage tester -02 nos for each scope		
<b>Hardware for recording and printing</b>	1. Intel pentium i7 processor with ht tech 3.0 ghz or better 2. Intel motherboard supporting pentium i7 processor or higher 3. 8 gb ram hdd or more 4. 1 tb hdd or more 5. DVD writer compatible mbps ethernet card + connectivity 6. 2 serial and 1 parallel ports 7. 8xusb port (2.0) 8. Multimedia key board 9. Optical scroll mouse 10. Multimedia speakers 11. Software for direct recording/archiving of images/video to computer and for DVD conversion along with video editing feature. 12. High resolution colour printer with 4 spare colour cartridges 13. External 2 tb hard disc-05nos 14. Preloaded with original windows and anti virus with 1 yr Validity		

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<b>Ups</b>	UPS to take care of the above equipment in case of power failure. Mobile cart with suitable compartment to house all the above equipment including computer with extension board	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided	Board should check or measure the product.	
<b>Warranty</b>	5 year warranty & 5 yr comprehensive maintainance contract should be provided ( year wise rate to be quoted) from the date of successful commissioning An under taking from company should be taken regarding availability of spares for the next 10 years		
<b>Operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

### 9. PORTABLE DEFIBRILLATOR WITH RECORDER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Should be a Low Energy Biphasic defibrillator monitor with Recorder, having capability to deliver shocks from 2 Joules to 200 Joules. 2. Should monitor ECG through paddles, pads and monitoring electrodes and Defibrillate through pads and paddles. 3. Should compensate for body impedance for a range of 25 to 150 ohms 4. Should have a built in 50 mm strip printer 5. Should have charging time of less than 5 seconds for maximum energy. 6. Should have High resolution more than 8-inch Color display for viewing monitoring parameters like ECG, SpO2, NIBP and etCO2 with 4 waveform capability of 4 seconds. 7. Both Adult and pediatric paddles should be available. 8. Should have event summary facility for recording and printing at least 55 events. 9. Should have a battery capable of usage for at least 5 hours of monitoring. 10. Should be capable of printing Reports on Event summary, configuration, self-test, battery capacity etc.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	11. Should have facility for self-test/check before usage and set up function. 12. Should have facility to monitor parameters like SpO2, IBP and etCO2 along with non-invasive pacing (Demand & Fixed mode) facility. 13. Should be able to upgrade the defibrillator for 12 lead ECG monitoring and ECG	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>System Configuration Accessories, spares and consumables</b>	1. Defibrillator with AED and External Pacemaker – 01 2. Adult with Built in Pediatric External Paddles - 01 3. Patient cables - 01 4. ECG Rolls – 50 5. Adult SpO2 reusable Sensor – 01 6. Adult NIBP Cuff and Hose – 01 7. 88 etCO2 Tubing (box of 20) – 01 box 8. AED Multifunction Pads for Adults - 10 pairs with Each unit		
<b>Environmental factors</b>	The unit shall be capable of operating continuously in ambient temperature of 5 – 45 deg C and relative humidity of up to 95% Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
<b>Power Supply</b>	Power input to be 120-240VAC, 50-60 Hz Should have a battery capable of usage for at least five hours.		
<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided		
<b>Warranty</b>	03 years		
<b>operating manuals, service manuals, other manuals</b>	User Manual in English/Hindi Service manual in English/Hindi List of important spare parts and accessories with their part number and costing Certificate of calibration and inspection from factory. Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out List of Equipment's available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual		

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10.	BITS PORT MOUTH REVERSIBLE LARGE -	ITEM PERTAINS TO VETERINARY SECTION.
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### 11. MULTI PARAMETER WITH MONITOR

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>Should have large bright colour LCD display of "12" or more. Should be capable to display up to 10 waveforms.</li> <li>Should monitor NIBP, IBP (2CH), ECG (5 Lead), SP02, Temp. Should have facility for arrhythmia and ST Segment Analysis.</li> <li>Should be able to detect irregular pulse and arrhythmia events.</li> <li>Should be suitable for Adult to Neonate usage. SP02 measurement range should 0 to 100%.</li> <li>Should be capable of measuring oxygen saturation even in case of motion artefacts. Should have 24 hrs trend facility for all parameters.</li> <li>Should have audio- visual alarms for all parameters and should display alphanumeric alarms messages.</li> <li>Should have automatic and manual alarms setting for all parameters. Should have inbuilt 3ch Thermal recorder with selectable recording speed. Should be easy and simple to operate.</li> <li>Should have CO2, N2O &amp; Anaesthesia Agents monitoring using side stream technology.</li> <li>Should be supplied complete with following : ECG Cable (5 lead) 02 No, Adult BP cuff 02 No Paed Bp Cuff 02 No, Neonatal BP cuff &amp; 5 cm) 02 no's each SP02 Probe finger with complete cable 02 No Universal SP02 Probe for paed &amp; Neo 02 No IBP Transducer (reusable) with cable 02 No's Body temperature sensor (rectal) 01 No's</li> <li>Should provide 5 Year warranty and 5 Years AMC/CMC after that Demonstration is a must.</li> <li>Company should have at least 10 installations of similar products to govt institutions in last 5 Years.</li> <li>Firms must have installed same equipment in at least TEN Government Hospitals without problems.</li> </ol>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.

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<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Warranty</b>	5 year warranty & 5 yr comprehensive maintenance contract should be provided (year wise rate to be quoted) from the date of successful commissioning. An under taking from company should be taken regarding availability of spares for the next 10 years.	Board should check or measure the product.	
<b>operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

## 12. PORTABLE ANESTHESIA KIT

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. The machine has to be a complete portable anesthesia machine with all accessories built on a light weight metal frame foldable built in stand 2. Provision for halothane vaporizer with glass bottle. 3. Flow meter unit for oxygen & nitrous oxide. 4. Oxygen & nitrous oxide regulators with pin-index system separately for each. 5. Brains circuit complete with bag mount corrugated tube minimum 40-inch length. 6. Re-breathing bags of all sizes. 7. Face mask padded of all sizes (pediatric to adult). 8. Catheter mounts. 9. Pediatric circuit with T-piece arrangements. 10. Facility for emergency oxygen with ' blow. 11. "A" type gas cylinders for oxygen & nitrous oxide. 12. Nitrous oxide tube 9inch (230mm) with fine adjustment control. 13. Max connection for "B" & "C" type gas cylinder. 14. Tools kits. 15. Carrying case for anaesthesia machine with accessories.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided		

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<b>Warranty</b>	Minimum 02-year guarantee against functionality excluding aesthetics	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

### 13. VENTILATOR & AIR TUBE 7 METERS LONG

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<p>Motor having at least 0.5 hp motor. Exhaust pipe-300 mm dia, flexible corrugated pipe with push back folding arrangement, 20-22-meter-long, used to provide ventilation/exhaust of air from confined spaces or outside environment vise-versa.</p> <p><b>I. Ventilation modes</b></p> <p>1. Pediatric mode. 2. Controlled mode. 3. Asst. Controlled mode. 4. Pressure Controlled Ventilation. 5. SIMV/V and SIMV/P. 6. Bipressure Ventilation. 7. CPAP and PEEP. 8. Facility for Non-Invasive ventilation 9. Plateau Facility</p> <p><b>II. Ventilation parameters: -</b></p> <p>1. Tidal volume - 200 – 2000 ML (Adult patient). a. 50 to 300 ML (Pediatric PC mode). 2. Respiratory rate - 5 – 100 BPH. 3. Pressure - 0 – 100 cm H<sub>2</sub>O. 4. Inspiratory Peak Flow - 4 – 100 l/min. 5. Minute volume - 1 – 30 l/min. 6. Oxygen Concentration - 21 – 100 % 7. Inspiratory pause - 0.1 – 5.5 sec. 8. PEEP/CPAP - 30 cm H<sub>2</sub>O.</p> <p><b>III. Standard Accessories (with each machine): -</b></p> <p>1. Patient circuit(Adult reusable) - 2 complete set.</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.

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	<p>2. Patient circuit (Paediatric reusable) - 1 complete set.  3. Nebulizer Ultrasonic one- Complete set.  4. Humidifier- 1 No.  5. O2 Pressure Regulator with hose - 1 No.  6. 5 meters (conversion kit)  7. Hose for O2 connection with connector - 5 mts.  8. Hose for compressed air with connector - 5 mts.  9. Test lung - 1 NO</p> <p><b>IV. Features: -</b>  1. Back up mode for apnea.  2. Full alarm system for all ventilator settings and monitored values.  3. Monitor with LCD/TFT (10" or higher size) graphical display for real time simultaneous display of two waveforms. Should display minimum 3 graphs and 2 loops and may not simultaneously  4. Monitoring of both patient data and set values should be possible with trend facility.  5. Direct access to vital settings  6. Transducer should be sterilizable and reusable.  7. PEEP valve should be built in.  8. Patient circuit should have a separate inspiratory and expiratory limb.  9. Should have safety certificate from a competent authority CE/ FDA (US) / STQC CB certificate / STQC S certificate or valid detailed electrical and functional safety test report from ERTL.</p> <p><b>V. Pneumatic Gas Sources:</b>  1. Gas delivery system by sound less in built compressor / external integrated compressor with the unit.  2. In case of compressor failure it should also be operable with compressed air / oxygen supply of 45 to 60 psi..</p> <p><b>VI. Power Source: -</b>  220/240 V Ac 50 Hz supply.  Internal battery (maintenance free) with 1 hour minimum operating time for the ventilator</p> <p><b>VII. Mounting</b>  Trolley/Cast mounting for easy transportation</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p>
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<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided	OEM should submit an undertaking regarding its quality and specifications.	
<b>Warranty</b>	5 year warranty & 5 yr comprehensive maintenance contract should be provided (year wise rate to be quoted) from the date of successful commissioning. An under taking from company should be taken regarding availability of spares for the next 10 years.	Board should check or measure the product.	
<b>operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

#### 14. BREATHING APPARATUS SET WITH SPARE CYLINDER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b>GENERAL SPECIFICATIONS</b>	The self-contained, Positive pressure and open circuit air breathing apparatus shall be certified for use by the fire fighters for use by the fire fighters for 45 minutes total working duration.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>TECHNICAL SPECIFICATION:</b>	<p>a) Back Plate and Body Harness: This shall be made of non - metallic, antistatic, impact, chemical &amp; fire-resistant material and orthopaedic ally designed and manufactured in conformity to ENI DIN/ US standards and certified for use by the fire fighters, It shall facilitate mounting of air cylinder through cam lock. The body harness shall be wearer friendly and safe for carrying load while all buckles shall be quick release type.</p> <p>b) Pressure reducer: This shall be so designed so as to meet the air demand for two users simultaneously at a stable pressure on the outlet with inlet pressure varying from 300 bars to 20 bars and shall confirm to provisions in prEN 137-2002 class 11.</p> <p>c) Face Mask: This shall be reverted edge seal type and made of flame-resistant material confirming to EN 136. The reflex seal on the outer mask shall be so designed so as to facemask to reduce dead space, speech transmitter for clear voice reproduction and a wide-angle panoramic vision visor made of Polycarbonate material and shall e self - de- misting type. The head straps shall be easy to tighten and quick to release.</p>	Board should check or measure the product.	

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	<p><b>d) Demand valve:</b> The lung operated demand valve design shall either be titling diaphragm type or piston type. This shall be provided on the facemask and connected to the pressure reducer with the help of rubber hose through quick connector. The demand valve shall be rated for minimum 500 Lpm airflow and shall activate with the first breath.</p> <p><b>e) Pressure gauge:</b> This shall be bourdon pressure gauge with luminescent dial with reassurance making in bar and encased in fire resistant rubber cover. The gauge shall be connected to pressure reducer through non-metallic rubber hose.</p> <p><b>f) Hoses:</b> The low-pressure hoses shall be flexible and non-kinking type and suitably reinforced to withstand 30 bar air pressure while the high-pressure hoses shall either be flexible or rigid metallic tube suitably secured to the back plate so as not to obstruct the movement of the wearer.</p> <p><b>g) Warning Whistle:</b> This shall be fitted either on the back plate or provided along with the pressure gauge assembly and shall be automatic in operation giving audible alarm of minimum 90 dB intensity at 1 meter distance of low cylinder pressure in the range of 50+ 5 Bar.</p> <p><b>h) 'Y' manifold for additional connections:</b> This set shall have provision through suitably placed 'Y' manifold to facilitate receiving air from a different source and supplying air for additional facemask.</p> <p><b>i) Air Cylinder:</b> This shall be corrosion and impact resistant and made of light alloy fully wrapped. The size of the cylinder shall be such that it can hold sufficient quantity of air [Not less than 1800 litres] for providing 45 minutes total working duration when charged at 300 bars pressure. The cylinder shall be provided with cross flow valve and EN 144+2 compliant. The cylinder shall be duly approved by the Chief Controller Explosive Nagpur and shall be capable of withstanding a minimum hydraulic testing pressure of 450 bars.</p> <p><b>j) Weight</b> "The weight of the ready to use set shall not be more than 12.5 kgs.</p> <p><b>APPROVAL:</b> The complete set shall have relevant EN or equivalent approval and certificate to this effect shall be furnished along with the offer.</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.
<b>TECHNICAL EVALUATION: -</b>	<p>The technical evaluation of the SCBA shall be subjected to the following: -</p> <p>a) Meeting the requirement as mentioned from Sl. No.1 to 3 above.</p> <p>b) Designed in conformity to EN/NIN/US standards, conformity certificate and CCOE certificate to be submitted along with the offer.</p>		

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<b>Training of staff (medical, paramedical)</b>	Training of users in handling and basic maintenance shall be provided	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Warranty</b>	5 year warranty & 5 yr comprehensive maintenance contract should be provided (year wise rate to be quoted) from the date of successful commissioning. An under taking from company should be taken regarding availability of spares for the next 10 years.	Board should check or measure the product.	
<b>operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

### 15. BLOOD PRESSURE CUFF ADULT WITH DIAL

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b>GENERAL SPECIFICATIONS</b>	a. Type Adult- Dial type b. Tube length : 20-22" c. Cuff width: 5" — 6" d. Bladder insider cuff should fit in properly. e. Material synthetic cloth with non Velcro fixing; Hook; and durable bulb inflator. f. ISI market and standard calibration of 0-300 mm.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Warranty</b>	02-year warranty		
<b>operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

### 16. POCKET MASKS (CPR)

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b>GENERAL SPECIFICATIONS</b>	a. Face mask with one way valve and filter. b. Used as physical barrier for mouth to mouth ventilation. c. Ventil INC Hation tube length 1-1.25". d. Pre inflated cuff for effective and good seal transparent mask. e. Oxygen delivery inlet. f. Hard case for carrying mask and one microbial i.e. i) Size 7 h" x 7 V2 " ii) Strength : 12 ply with good absorbent quality gauze and cotton	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Warranty</b>	02-year warranty		

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<b>operating manuals, service manuals, other manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.
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### 17. DRESSING ABDONIMAL 7 ½" INCHES

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b>GENERAL SPECIFICATIONS</b>	Dressing Abdominal LI 7 h" a) Size 7 h" x 7 V2 " b) Strength : 12 ply with good absorbent quality gauze and cotton c) Layer in between d pre sterilized read to use individual pack.	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.

### 18. GAUZE DRESSING VESELINE

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b>GENERAL SPECIFICATIONS</b>	a) Non adherent dressing U.S.P. impregnated with b) U.S.P. white Petrolatum c) Size: 10 x 10 cm d Packa e: sterilized 10 Pieces/ ack	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.

### 19. GLASSES EYE PROTECTION

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b>GENERAL SPECIFICATIONS</b>	UVEX- scratch resistant lens of unbreakable Polycarbonate with Maximum UV protection and frosted brow guard to block Overhead glare Side shields, which are adjustable. Adjustable temple length in four positions Overall shape should be so as to prevent any splash of Body fluids entering the eye	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.
<b>Warranty</b>	02-year warranty		
<b>operating manuals</b>	Advanced maintenance tasks required shall be documented User, technical and maintenance manuals to be supplied in English/Hindi language		

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**20. DRESSING MULTI TRAUMA 12" X 3"**





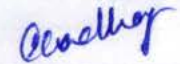

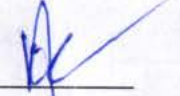
CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	i) Size 12" x 3" ii) Layers: of 16 ply of good absorbent quality gauze with cotton In between. iii) Thickness: at least of 5 cm. iv) Package: Presterilized packs of 3 pieces/pack; ready to use.	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.

**21. OBSTERICAL KIT DISPOSABLE**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	Sterilized disposable kit with the following. 1) Plastic apron - 1 nos, 2) Cap disposable- 1 nos 3) Face mask - 1 nos, 4) latex gloves - 1 pair 5) Shoe cover - 1 pair, 6) Plastic drapes - 2 nos 7) Stérile ombilical cordé clamps - 1 nos 8) Baby towel - 1 nos 9) Blade SS 1 nos, 10) Maturity pads - 2 pads 11) Sterilise gauge pad IOx 12 ply - 4 nos(towe lettes) 12) Disposable sterilised suction bulb (infant) 1 nos 13) Sterilize under pad - 1 nos 14) Plastic bag to hold placenta and waste - 2 nos 15) Twist ties for use with plastic bag- 2 nos	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.

**22. SCISSORS PARAMEDICAL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	a) Length 6" to 9", width 3 mm b) Stainless steel body with Plastic unsheathed finger slots	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.

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**23. SPONGE STERILE 4"X4"**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Sterile, 100% cotton, USP Type VII woven gauze sponges are ideal for wound dressings, wound packing and general wound care 2. "C fold" design helps minimize loose threads and lint 3. Strictly controlled manufacturing assures clean, debris-free packing with folded edges to prevent unraveling; easy-open envelopes are carefully sealed to prevent the intrusion of dust and contaminants 4. Sterile. Packed in a coated paper envelope to reduce fiber debris	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
LATEX FREE	Yes		
LENGTH INCHES	4 "		
MATERIAL	Cotton		
WIDTH INCHES	4"		

**24. BAND AID 1" X 3" PACKETS**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. The backing and bag should be made of coated paper/coated plastic. 2. The adhesive sheet is a woven fabric, plastic (PVC, polyethylene or polyurethane), or latex strip. It should be waterproof. 3. The adhesive should be an acrylate, including methacrylates and epoxy diacrylates (which are also known as vinyl resins). 4. The absorbent pad will be cotton with a thin, porous-polymer coating over the pad, to keep it from sticking to the wound. The pad may also be medicated with an antiseptic solution.	OEM should submit an undertaking in this regard.  Board should check or measure the product.	As per specification.
ANTISEPTIC MEDICINE	1. Formulated with the topical antiseptic benzalkonium chloride, this first aid skin cleaner kills germs and helps prevent infection. 2. Active ingredients Purpose - Benzalkonium Cl 0.13% First aid antiseptic - Lidocaine HCl 2% w/w Topical analgesic		

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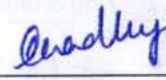
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## 25. MASK UNIVERSAL SIZE

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<b><u>MASK, MEDICAL -FOR HEALTHCARE WORKER</u></b> Medical mask, good breathability, internal and external faces should be clearly identified, 98% droplet filtration, preferably fluid resistance.	1. Fluid resistant masks (surgical masks): <ul style="list-style-type: none"> <li>• EN 14683 Type IIR</li> <li>• ASTM F2100 Level 1, 2 or 3,</li> <li>• YY 0469, with at least 98% bacterial droplet filtration or alternative equivalent standard</li> </ul> 2. Non-fluid resistant mask:           3. <ul style="list-style-type: none"> <li>• EN 14683 Type II</li> <li>• YY/T 0969, with at least 98% bacterial droplet filtration or alternative equivalent standard</li> </ul>	OEM should submit an undertaking in this regard.  Board should check or measure the product.	As per specification.
<b><u>MASK, MEDICAL, FOR PATIENT</u></b> Medical mask, good breathability, internal and external faces should be clearly identified	1. EN 14683 Type I 2. YY 0469 or YY/T 0969, if bacterial droplet filtration is below 98% or alternative equivalent standard. 3. Filtration (BFE) = $\geq 95\%$ (Type I) $\geq 98\%$ (Type II, IIR) 4. Filtration (PFE) = N/A 5. Pressure drop = (Pa/cm <sup>2</sup> ) <40 (Type I, II) <60 (Type IIR) 6. Synthetic Blood penetration (kPa) = 120 mm Hg ISO 22609 7. $\geq 16$ kPa (Type IIR) 8. Microbial cleanliness (cfu/g) = $\leq 30$		
<b><u>OXYGEN FACE MASK</u></b>	1. Manufactured from soft non toxic, medical grade PVC Compound. 2. Elastic strap and Aluminium nose clip is provided on the Mask for proper adjustment of Mask on nasal area. 3. Multichannel tube ensure regular supply of oxygen if tube is accidently kinked. 4. Tube is provided with connectors at both ends for easy connection with oxygen source. 5. Transparent OXYGEN MASK meant to administer oxygen to patients. 6. Made from special non-toxic medical grade PVC. 7. Two holes to allow carbon dioxide exhaled by the patient to escape. 8. Nasal clip for secure fixation over the patient's nose. 9. Elastic band for placement around the head. 10. Transparent tubing to connect the mask to the oxygen source. 11. Product Specification. 12. With tubing and nose clip ( Both Adult/Child)		
<b><u>PACKING</u></b>	1. Non-Sterile, individually packed in a polybag.		

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**26. OXYGEN CANNULA NASAL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>1. The device consists of Soft twin prongs nasal tips to ensure equal oxygen flow to both. Adjustable, smoothly finished nasal tips for maximum patient comfort. Star lumen main tube to avoid accidental blockage.</li> <li>2. Over-the-Ear tubing adjustable Soft funnel shaped connector to facilitate easy connection to oxygen source.</li> <li>3. Length of the oxygen tube: +/- 2 m. Material: Preferably soft and kink resistant polyvinyl chloride (PVC). Size selected: Child/Adult Single use. Non-sterile.</li> </ol>	OEM should submit an undertaking in this regard. Board should check/measure the product.	As per specification.
PACKAGING AND LABELLING	<ol style="list-style-type: none"> <li>1. Primary packaging: unit of use One (1) Nasal prongs in a plastic bag. Over packaging: Packaging unit.</li> </ol>		
WEIGHT/VOLUME (PACKAGED):	<ol style="list-style-type: none"> <li>1. Estimated weight: 0.091kg Estimated volume: 0.53cdm</li> </ol>		
SAFETY CONSIDERATIONS	<ol style="list-style-type: none"> <li>1. Nasal cannula for single use only.</li> </ol>		
REGULATION & CONFORMITY REQUIREMENTS:	<ol style="list-style-type: none"> <li>1. CE mark conforming to Medical Device Directive 93/42/EEC CE Certificate (class-II a or higher )</li> </ol>		

**27. TRIAGE RIBBON GREEN TAPE 50M ROLL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>1. Carrier/Backing: polyethylene (PE) film</li> <li>2. Adhesive: N/A</li> <li>3. Thickness: 4 mils</li> <li>4. Elongation: 750%</li> <li>5. Density: 0.992 gm/cc</li> <li>6. Core: 3" diameter</li> <li>7. Color: Green</li> <li>8. Length: 50 M (Roll)</li> </ol>	Board should check the product. OEM should submit an undertaking in this regard.	As per specification.

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**28. TRIAGE RIBBON RED TAPE 50M ROLL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	1. Carrier/Backing: polyethylene (PE) film 2. Adhesive: N/A 3. Thickness: 4 mils 4. Elongation: 750% 5. Density: 0.992 grm/cc 6. Core: 3" diameter 7. Color: RED 8. Length: 50 M(Roll)	Board should check the product.  OEM should submit an undertaking in this regard.	As per specification.

**29. TRIAGE RIBBON BLACK TAPE 50M ROLL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	1. Carrier/Backing: polyethylene (PE) film 2. Adhesive: N/A 3. Thickness: 4 mils 4. Elongation: 750% 5. Density: 0.992 grm/cc 6. Core: 3" diameter 7. Color: Black 8. Length: 50 M(Roll)	Board should check the product.  OEM should submit an undertaking in this regard.	As per specification.

**30. TRIAGE RIBBON YELLOW TAPE 50M ROLL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	1. Carrier/Backing: polyethylene (PE) film 2. Adhesive: N/A 3. Thickness: 4 mils 4. Elongation: 750% 5. Density: 0.992 grm/cc 6. Core: 3" diameter 7. Color: Yellow 8. Length: 50 M(Roll)	Board should check the product.  OEM should submit an undertaking in this regard.	As per specification.

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**31. PADDED BOARD SPLINT (WOODEN) - SHORT**





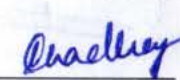


CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	1. Solid wood splint 2. Comfortable foam and vinyl cover 3. Padded Board Splint Specifications: 4. Materials: solid wood, foam with vinyl cover 5. Size : 15" 6. 1/2 inch x 3 inch solid wood. Orange vinyl covered splints have 1/2" foam on one side, and covered and sealed with orange reusable vinyl.	Board should check the product. OEM should submit an undertaking in this regard.	As per specification.
DISPOSABLE	Non-disposable. Carrying/storage case-Smooth, cleanable surface Latex-free		

**32. PADDED BOARD SPLINT (WOODEN) - MEDIUM**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	1. Solid wood splint. 2. Comfortable foam and vinyl cover 3. Padded Board Splint Specifications: 4. Materials: solid wood, foam with vinyl cover 5. Size : 36". 6. 1/2 inch x 3 inch solid wood. Orange vinyl covered splints have 1/2" foam on one side, and covered and sealed with orange reusable vinyl.	Board should check the product. OEM should submit an undertaking in this regard.	As per specification.
DISPOSABLE	1. Non-disposable. Carrying/storage case-Smooth, cleanable surface Latex-free		

**33. PADDED BOARD SPLINT (WOODEN) - LARGE**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	1. Solid wood splint 2. Comfortable foam and vinyl cover 3. Padded Board Splint Specifications: 4. Materials: solid wood, foam with vinyl cover 5. Size : 54" 6. 1/2 inch x 3 inch solid wood. Orange vinyl covered splints have 1/2" foam on one side, and covered and sealed with orange reusable vinyl.	Board should check the product. OEM should submit an undertaking in this regard.	As per specification.
DISPOSABLE	Non-disposable. Carrying/storage case-Smooth, cleanable surface Latex-free		

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**34. AIR WAY ORAL SET 60/80/100 MM**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>Oro-pharyngeal airway, Guedel type.</li> <li>Should be Semi-rigid, transparent.</li> <li>Proximal (or buccal) end should be straight and reinforced.</li> <li>Flange should be colour coded and/or marked with corresponding size number.</li> <li>Size: Airway Guedel, size should be 6/8/10, (Length 60mm/ 80mm/100 mm).</li> <li>Material: Polyethylene/ vinyl acetate (EVA) - Polyvinyl chloride (PVC).</li> <li>Sterile, should be for single patient use.</li> <li>Initial sterilization method: Ethylene oxide gas or gamma radiation.</li> </ol>	Board should check the product. OEM should submit an undertaking in this regard.	As per specification.
SHELF LIFE	1. Minimum 60 months		
PACKAGING AND LABELING:	<ol style="list-style-type: none"> <li>Primary packaging: Unit of use - One</li> <li>Airway Guedel must be packed in a plastic bag.</li> </ol>		
WEIGHT AND VOLUME	<ul style="list-style-type: none"> <li>Estimated weight should be : 0.016k</li> <li>Estimated volume should be : 0.12cdm</li> </ul>		
SAFETY PROCESS:	<ul style="list-style-type: none"> <li>This item should be sterile and is for single patient use.</li> <li>Must be supplied in sterile packaging.</li> </ul>		

**35. EMERGENCY ACCIDENT KIT**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
MEDICATIONS	<ol style="list-style-type: none"> <li>Asthalin inhaler,</li> <li>Diphenhydramine 50 mg/ml, 2ml</li> <li>Diphenhydramine 50mg (oral)</li> <li>Solu-medrol 125mg, 2ml</li> <li>Epinephrine 1:10,000, 50ml</li> <li>Epinephrine 1:1000 1mg/ml, 2ml</li> <li>Adenosine 3mg/ml, 10ml</li> <li>Amiodarone 50mg/ml, 6ml</li> <li>Aspirin tablets 325mg (4)</li> <li>Atropine sulfate 0.1mg/ml, 20ml</li> <li>Lidocaine 2% 20mg/ml, 10ml</li> <li>Lidocaine 1% with epinephrine 1:100,000, 10mg/ml, 20ml</li> </ol>	Board should check the product, Quantity/Nos. & its expiry date.	As per specification.

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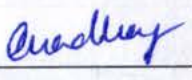


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	13. Nitroglycerin 0.4mg tablets 14. Labetalol 5mg/ml, 20ml 15. Furosemide 10mg/ml, 4ml 16. Dopamine 40mg/ml, 10ml 17. Ammonia inhalants (3) 18. Dextrose 25% 250mg/ml, 10ml 19. Dextrose 50% 500mg/ml, 50ml 20. Oral glucose gel, 21. Flumazenil 0.1mg/ml, 10ml 22. Naloxone 0.4mg/ml, 2ml 23. Ondansetron 2mg/mL, 4mL 24. Sodium chloride 1000mL 25. Lactated ringers 1000mL 26. Magnesium sulfate USP 50% 5g/10mL 27. Verapamil 2.5mg/mL, 4mL	Board should check the product, Quantity/Nos. & its expiry date.	As per specification.
FOR MEDICATION DELIVERY	1. Set of syringes. 1ml, 3ml, & 12ml syringes 2. Set of syringe needles 3. IV catheters and tubing 4. Latex-free tourniquets (2) 5. Hypoallergenic tape 6. Hand scrub, swab stick. 7. Betadine wipes. 8. 8. Alcohol wipes		
FOR SAFE DISPOSAL OF USED SYRINGES /NEEDLES	Quart Sharps Disposal Container with pre-paid return box		
AIRWAY & RESUSCITATION DEVICES	1. Endotracheal tube set 2. Oropharyngeal airway set 3. Nasopharyngeal airway set 4. Airway set with inflation syringe 5. Laryngoscope with large & small blades 6. Bag-Valve-Mask resuscitator with adult & child masks 7. CO2 detector for BVM 8. Hand-held suction unit. 9. Suction tip. 10. Magill forceps		

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FOR WOUND & TRAUMA CARE	<ol style="list-style-type: none"> <li>1. Emergency tourniquet</li> <li>2. Wound dressing</li> <li>3. Chest wound seal</li> <li>4. Gauze pads (4)</li> <li>5. Gauze sponges (2)</li> <li>6. Rolled gauze bandages (2)</li> <li>7. Compression bandages (2)</li> <li>8. Emergency thermal blanket (1)</li> <li>9. Eye wash</li> <li>10. Prolene &amp; vicryl sutures</li> <li>11. Instrument set should contain:</li> <li>12. Needle holder, scissors &amp; forceps, Scalpel &amp; Shears</li> </ol>	OEM should submit an undertaking in this regard.	As per specification.
FOR PERSONAL PROTECTION	<ol style="list-style-type: none"> <li>1. Nitrile gloves (6)</li> <li>2. CPR face shield</li> <li>3. Safety glasses/goggles</li> <li>4. N95 particulate respirator</li> </ol>	Board should check the product.	
FOR TRIAGE & ASSESSMENT	<ol style="list-style-type: none"> <li>1. Disposable thermometers (2)</li> <li>2. Headlamp</li> <li>3. Sphygmomanometer</li> <li>4. Stethoscope</li> </ol>		
REFERENCE & DOCUMENTATION	<ol style="list-style-type: none"> <li>1. ACLS pocket reference cards</li> <li>2. Security seals (4)</li> <li>3. Quick Reference &amp; Kit Contents cards.</li> <li>4. Notepad &amp; pen</li> </ol>		
GENERAL SPECIFICATION OF THE ITEMS IN EMERGENCY ACCIDENT KIT	<ol style="list-style-type: none"> <li>1. Blood Pressure Cuff</li> <li>2. Stethoscope-1</li> <li>3. Non Adhering Pads 2x3 -2</li> <li>4. 2 Gauze Pads 3x3-2</li> <li>5. Gauze Pads 2x2-2</li> <li>6. Gauze Pads 4x4-2.</li> <li>7. Cold Packs-2</li> <li>8. 1/2 oz Eye Wash-2</li> <li>9. 4 oz Saline Eye &amp; Skin Solution-1</li> <li>10. Penlight-1, Emergency Blanket-1</li> <li>11. Utility Lister Scissors-1</li> </ol>		

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	12. Instant Glucose-1 13. Splinter Outs-10 14. Burn Gel-5 15. Cohesive Self Sticking Roll. Bandage 3 inch by 5 yards-1 16. First Aid Adhesive Tape-1 17. Gauze Roll 2 inch-2 18. Gauze Roll 4 inch-2 19. Triangular Bandage-1 20. Multi Trauma Blood Stop Dressing-1 21. First Aid Guide Book-1 22. Surgical Dressings 5x9-2 23. Pair Nitrile Exam Gloves-2 24. Band-aid Strips-120 25. X-large Band aids-8 26. 3/4 x 2 1/5 Bandage strips-82 27. Junior Bandages-40 28. Spot Bandages-30 29. Knuckle Elastic Cloth Bandaids-10 30. Fingertip Elastic Cloth Bandaids-10 31. Oval Eye Pads-2 32. Antibiotic Ointment-10 33. Antiseptic Wipes-9 34. Alcohol Pads-10 35. Hand Sanitizer-10 36. Sting Kill Wipes-10 37. PVP Iodine Swabs 38. Bag measures 13" x 9" x 6"-10	Board should check the product, Quantity/Nos. & its expiry date.	As per specification.
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**36. TORCH LIGHT STYLED HANDLE**


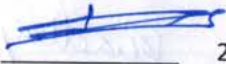


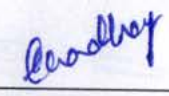


CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATION	<ul style="list-style-type: none"> <li>Description: Portable size with styled handle</li> <li>Should have a clip/hanger with its handle, should be suitable for carrying around,</li> <li>Waterproof and abrasion resistance</li> <li>Sturdy and durable Material: High quality alloy.</li> <li>Color of light: White Color.35 to 100 lumens light power</li> <li>Power source –AAA /AA Battery powered (05 or more)</li> <li>Package should include: 1 x Medical LED Flashlight with product brochure.</li> </ul>	OEM should submit an undertaking in this regard. Board should check the product.	As per specification.

**37. TORCH LIGHT WAND DISPOSABLE 10 PER PACK –ADULT**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATION	<ul style="list-style-type: none"> <li>Description: Portable adult size, suitable for carrying around Waterproof and abrasion resistance Sturdy and durable Material: High quality alloy. Used for medical purpose Color of light: White Color.35 to 100 lumens light power.</li> <li>Power source –AAA /AA Battery powered (04 Nos)</li> <li>Halogen Bulb (optional)</li> <li>Pack-10/pack</li> <li>Package includes: 1 pkt should contain 10 Medical LED Flashlight torch-A with product brochure.</li> </ul>	OEM should submit an undertaking in this regard. Board should check the product.	As per specification.

**38. TORCH LIGHT WAND DISPOSABLE 10 PER PACK –CHILD**

GENERAL SPECIFICATION	<ul style="list-style-type: none"> <li>Description: Portable Medium size, suitable for carrying around Waterproof and abrasion resistance Sturdy and durable Material: High quality alloy. Used for medical purpose</li> <li>Color of light: White Color.35 to 100 lumens light power</li> <li>Power source –AAA /AA Battery powered (02 Nos)</li> <li>Pack-10/pack</li> <li>Package should include 10 Medical LED Flashlight torch-C with product brochure.</li> </ul>	<p>OEM should submit an undertaking in this regard.</p> <p>Board should check the product.</p>	As per specification.
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**39. TORCH LIGHT WAND DISPOSABLE 10 PER PACK –INFANT**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
Description:	<ul style="list-style-type: none"> <li>• Portable small size, suitable for carrying around Waterproof and abrasion resistance Sturdy and durable Material: High quality alloy. Used for medical purpose.</li> <li>• Color of light: White Color.35 to 100 lumens light power.</li> <li>• Power source –AAA /AA Battery powered (01 Nos)</li> <li>• Pack-10/pack. Package should include 10 Medical LED Flashlight torch-I with product brochure.</li> </ul>	OEM should submit an undertaking in this regard. Board should check the product.	As per specification.

**40. INFANTRY PACK (CPR MANNEQUIN) - 5 PCS PACK WITH LUNGS BAG (73)**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL	<ul style="list-style-type: none"> <li>• Length of Manikin : 50-70 cm.</li> <li>• Width of the Chest : 30-40 cm.</li> <li>• Parts : Having 05 parts.</li> </ul>	Board should check & measure the product.	As per specification.
HEAD	<ul style="list-style-type: none"> <li>• Head should be made up of a good plastic quality.</li> <li>• Size - Length 19-25 cms, Width – 12-15 cms</li> <li>• It should be screwed with the neck with a facility for extension</li> <li>• Mouth should be opened by 2.5cm to 4 cm for inserting lung bag.</li> <li>• Mandible or lower jaw should be movable.</li> <li>• Nose should be made up of such material that can be pinched.</li> <li>• Eye /Ear should be well impressed.</li> </ul>	OEM should submit an undertaking in this regard.  Board should check & measure the product.	As per specification.
MAIN BODY (BACK)	<ul style="list-style-type: none"> <li>• It is the posterior portion of the body to which head and chest portion is fixed.</li> <li>• Should be made up of good quality of plastic with a circular hole in the center of the torso to place the piston.</li> <li>• At the end of the neck there should be a provision to screw the head.</li> <li>• There should be provision to attach chest part over the upper portion of back.</li> <li>• Length of the back 48-68 cms.</li> <li>• Width: 28-40 cms.</li> <li>• Length of the neck: 16cms - 18 cms.</li> </ul>		

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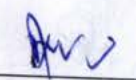
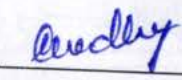


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CHEST	<ul style="list-style-type: none"> <li>• Should be made up of good quality of rubber.</li> <li>• Can be compressed by 4-7 cms.</li> <li>• Clavicle, xyphoid process, sternum, navel and ribs should be with proper landmarks.</li> <li>• Left right chest should be well impressed.</li> <li>• There should be cleft in the center of the chest so that airway system (lung) can be inserted.</li> <li>• Length of the chest 30-45 cms, Width 28-38 cms.</li> </ul>	<p>OEM should submit an undertaking in this regard.</p> <p>Board should check the product.</p>	As per specification.
PISTON	<ul style="list-style-type: none"> <li>• Should be made up of good quality of sponge.</li> <li>• Should properly fit over the hole of the back</li> <li>• Diameter of the piston 12 to 15 cms (Subject to fit over the hole on the back). Height of the piston: 7-10 cms.</li> </ul>		
LUNG BAG	<ul style="list-style-type: none"> <li>• Should be made up of good quality of polyethylene.</li> <li>• It will be in three parts</li> </ul>		
MOUTH	<ul style="list-style-type: none"> <li>• Rectangle in shape in shape with two flaps that be fixed over the mouth to prevent air entry from out sides.</li> <li>• Size: Length; 12 -13 cms, Width: 4-7 cms</li> <li>• The mouth leads into windpipe.</li> </ul>		
WINDPIPE	<ul style="list-style-type: none"> <li>• Should be spherical in shape when inflated.</li> <li>• Circumference - 10-12 cms</li> </ul>		
LUNG	<ul style="list-style-type: none"> <li>• Spherical in shape when inflated.</li> <li>• Radius- 6-7 cms</li> </ul>		
INSERTER:	<ul style="list-style-type: none"> <li>• A flat plastic strip for inserting lung bag through the mannequin into cleft of the chest.</li> <li>• Length: 48-52 cms,</li> <li>• Width: 3-4 cms</li> </ul>		

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**41. SQUADRON PLUS (CPR MANNEQUIN)- 5 PCS PACK WITH LUNGS BAGS**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
HEAD	<ul style="list-style-type: none"> <li>Head should be made up of a good plastic quality.</li> <li>Size: Length : 19 -25 Cms, Width: 12-15 Cms</li> <li>It should be screwed with the neck with a facility for extension.</li> <li>Mouth should be opened by 2.5 Cm to 4 Cm for inserting lung bag. Mandible or lower jaw should be movable.</li> <li>Nose should be made up of such material that can be pinched.</li> <li>Eye ear should be well impressed.</li> </ul>	<p>OEM should submit an undertaking in this regard.</p> <p>Board should check the product.</p>	As per specification.
MAIN BODY (BACK)	<ul style="list-style-type: none"> <li>It is the posterior portion of the body to which head and chest portion is fixed.</li> <li>Should be made up of good quality of plastic with a circular hole in the center of the torso to place the piston.</li> <li>At the end of the neck there should be a provision to screw the head.</li> <li>There should be a provision to attach chest part over the upper portion of back.</li> <li>Length of the back 48-68 Cms, Width: 28 - 40 Cms</li> <li>Length of the neck: 16cms - 18 Cms.</li> </ul>		
CHEST	<ul style="list-style-type: none"> <li>Should be made up of good quality of rubber.</li> <li>Can be compressed by 4-7 Cms</li> <li>Clavicle, xyphoid process, sternum, navel and ribs should be with proper landmarks.</li> <li>Left right chest should be well impressed.</li> <li>There should be cleft in the center of the chest so that airway system (lung) can be inserted.</li> <li>Length of the chest 30-45 Cms, Width 28-38 Cms.</li> </ul>		
PISTON	<ul style="list-style-type: none"> <li>Should be made up of good quality of sponge.</li> <li>Should properly fit over the hole of the back</li> <li>Diameter of the piston should be 12 to 15 Cms (Subject to fit over the hole on the back).</li> <li>Height of the piston: 7-10 Cms.</li> </ul>		

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LUNG BAG	<ul style="list-style-type: none"><li>Should be made up of good quality of polyethylene.</li><li>It will be in three parts</li></ul>	OEM should submit an undertaking in this regard.  Board should check the product.	As per specification.
MOUTH	<ul style="list-style-type: none"><li>Rectangle in shape in shape with two flaps that be fixed over the mouth to prevent air entry from out sides.</li><li>Size: Length; 12 -13 Cms, Width: 4-7 Cms</li><li>The mouth leads into windpipe.</li></ul>		
WIND PIPE	<ul style="list-style-type: none"><li>Should be spherical in shape when inflated.</li><li>Circumference; 10-12 cms</li></ul>		
LUNG	<ul style="list-style-type: none"><li>Spherical in shape when inflated.</li><li>Radius; 6-7 cms</li></ul>		
INSERTER	<ul style="list-style-type: none"><li>A flat plastic strip for inserting lung bag through of the mannequin into cleft of the chest.</li><li>Length: 48-52 cms</li><li>Width: 3-4 cms</li></ul>		

#### 42. PULSE OXYMETER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
WEIGHT (GRAM)	Less than 300 g	OEM should submit an undertaking in this regard.	As per specification.
NOISE LEVEL (DB)	<40 Db		
TECHNICAL CHARACTERISTICS (SPECIFIC TO THIS TYPE OF DEVICE)	a. SpO2 measurement range at least 40-70 and 70 to 99 %, minimum gradation 1%., b. Accuracy of SpO2 better than +1% for range 40-70 and better than +3% for range 70-99 c. Accuracy of pulse rate better than $\pm 5$ bpm d. Audio-visual alarms required: high and low SpO2 and pulse rate; operator variable settings; sensor disconnected, sensor failure, low battery. e. Pulse rate range at least 30 to 240 bpm, f. Minimum gradation 1 bpm	Board should check the product.	
POWER CONSUMPTION	1.5 Watt		
POWER INPUT AND FREQUENCY	220 to 240V, 50 Hz		
DISPLAY TYPE	Color Ordinary LED		
HEAT DISSIPATION	Should maintain nominal temperature and prevent overheating of the probe.		

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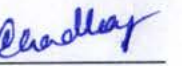


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MOBILITY, PORTABILITY	<ul style="list-style-type: none"> <li>Protective splash-proof case for clean storage and safe transport</li> </ul>	OEM should submit an undertaking in this regard.  Board should check the product.	As per specification.
OPERATING CONDITION	<ul style="list-style-type: none"> <li>Capable of operating continuously in ambient temperature of 0 to 50 degree Celsius and relative humidity of 15 to 90% in ideal circumstances</li> </ul>		
STANDARDS & SAFETY	<ul style="list-style-type: none"> <li>Should be FDA / CE approved. Should qualify ISO 80601-2-61-2011: Medical Electrical equipment- part 2-61: Particular requirements for the basic safety and essential performance of pulse oximeter. Manufacturer/ supplier should have ISO 13485 certificate for quality standard. Electrical safety should confirm to standards for electrical safety IEC-60601-1, shall meet IEC-60601-1-2 (General requirements for safety- electromagnetic compatibility).</li> </ul>		
SIGNAL STRENGTH OR QUALITY TO BE VISUALLY DISPLAYED	Yes		

#### 43. B.P APPARATUS DIGITAL

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
DETAILED REQUIREMENTS	Measurement ranges: systolic (mm Hg), 60–250, 60-290 preferred for adults, 30–160 for children and 20–120 for neonates. Diastolic (mm Hg), 30–180 adults, 10–150 paediatric, 10-100 neonate. Mean arterial pressure (mm Hg), 30–250 adults, 30–160 children, 30–110 neonates. Pulse (beats per min), 30–150 adult and children, 30–180 neonates. Inflation pressure (mm Hg) 150–260 adults, 85–140 neonates; adjustable or automatically set preferred. Auto deflate pressure (mm Hg), 300 adults, 150 neonates. Measurement interval, min: User selectable: $\geq 5$ choices. Cuff sizes: neonatal, paediatric, adult, large adult, thigh. Measurement time (s) $\leq 60$ , user selectable. Automatic 0 required. Display may include tabular and/or graphic trends (user preference). Equipment alarms required: cuff leak, cuff disconnect, failure to take successful reading, low-battery notice. Equipment alarms preferred: hose leak, inflation or deflation error. Sphygmomanometer should automatically deflate if the cuff pressure reaches 300 mm Hg for an adult and 150 mm Hg for a neonate.	OEM should submit an undertaking in this regard. Board should check the product.	As per specification.

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DISPLAYED PARAMETERS	The unit should display the following numerical values: systolic pressure, diastolic pressure, pulse rate and mean arterial pressure. Other parameters are optional. The unit should alert the operator, either visually or audibly.	OEM should submit an undertaking in this regard. Board should check the product.	As per specification.
USER ADJUSTABLE SETTINGS	Inflation pressure should be adjustable or automatically set according to a previous or current pressure reading or individual requirements. Time between automatic BP measurement cycles should be selectable from at least five values over a range of 1 to 60 min. Set alarm volume and limits within the specified measurement ranges.		
COMPONENTS	<ul style="list-style-type: none"> <li>• Rubber tubes to be detachable from other parts, allowing periodic cutting of decayed ends.</li> <li>• Gauge body to include clip for mounting on cuff. Tube length to be &gt; 30 cm.</li> <li>• Different cuff sizes should be available as per the requirement (small or neonate, medium or pediatric, large or adult and extra-large or large adult).</li> <li>• Cuff material to be removable and washable.</li> </ul>		
MOBILITY, PORTABILITY	Wall, portable, table-top, mobile stand		
UTILITY REQUIREMENTS	AC: 120/240, 50/60 Hz DC: Rechargeable battery (for at least 1 h of operation, single-use or rechargeable)		
CONSUMABLES AND REAGENTS	Single-use cuffs in the following sizes: neonatal (10–15 cm), pediatric (14–22 cm), adult (25–36 cm), large adult (34–43 cm), thigh (40–55 cm). The sizes of the cuffs depend on the manufacturer but should not deviate by $\pm 5$ cm from the stated sizes. Batteries.		
SPARE PARTS	Rubber tube (length > 30 cm), reusable cuffs in the following sizes: neonatal (10–15 cm), pediatric (14–22 cm), adult (25–36 cm), large adult (34–43 cm), thigh (40–55 cm). The sizes of the cuffs depend on the manufacturer but should not deviate by $\pm 5$ cm from the stated sizes. Tubing, valve		
OTHER COMPONENTS	Protective case		
AVAILABILITY OF SOFTWARE AND HARDWARE UPGRADES	Software upgrade required and if available from factory		

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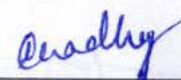


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INTERNATIONAL STANDARDS	<ul style="list-style-type: none"> <li>• ISO 13485:2016, Medical devices – Quality management systems – Requirements for regulatory purposes</li> <li>• ISO 14971:2007, Medical devices – Application of risk management to medical devices</li> </ul>	OEM should submit an undertaking in this regard. Board should check the product.	As per specification.
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#### 44. B P APPARATUS MERCURY

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
TECHNICAL CHARACTERISTICS (SPECIFIC TO THIS TYPE OF DEVICE)	Scale 0-300 mm hg. Air release at closed lap with maximum 4mmHg/Minute. Manual setting of deflation possible up to 2/3mm Hg/sec. From 260mmHg. To 15mm Hg in a maximum deflation time of 10 seconds. Gauge's background in white Colour. Graduated scale for ever/ 2mm hg, every 10 units and every 20 units. Nylon straps cuff with pouch, latex bulb with completely chromium plated valve with regulation of vent-hole air by screw valve.	OEM should submit an undertaking in this regard.  Board should check the product.	As per specification.
SETTINGS	The cuff is inflated just to fit in the limb for which an inflation bulb is used to control the air pressure within the cuff.		
USER'S INTERFACE	Manual		
DIMENSIONS (METRIC)	The rubber tubes used should have an internal diameter of $3 \pm 0.5$ mm and the external diameter should not be less than 8mm; The dial manometer with minimum diameter of 160 mm.		
MOBILITY, PORTABILITY	Yes		
ACCESSORIES (MANDATORY, STANDARD, OPTIONAL)	Adult arm cuffs of size medium & large and pediatric size, inflation bulb, tubing.		
CERTIFICATES (PRE-MARKET, SANITARY) PERFORMANCE AND SAFETY STANDARDS (SPECIFIC TO THE DEVICE TYPE) LOCAL AND / OR INTERNATIONAL	ISO 13485		
PRE-INSTALLATION REQUIREMENTS: NATURE, VALUES, QUALITY, TOLERANCE	Supplier to perform safety and operation checks before handover.		





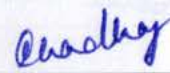


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REQUIREMENTS FOR SIGN-OFF	Certificate of inspection from the factory.	<ul style="list-style-type: none"> <li>• Board should check the product.</li> <li>• OEM should submit an undertaking in this regard.</li> </ul>	As per specification.
TRAINING OF STAFF (MEDICAL, PARAMEDICAL, TECHNICIANS)	Training of users in operation and basic maintenance shall be provided.		
WARRANTY	1 year		
MAINTENANCE TASKS	Maintenance manual detailing complete maintaining schedule.		
OPERATING MANUALS, SERVICE MANUALS, OTHER MANUALS	User, technical and maintenance manuals to be supplied in English language along with machine diagrams. List to be provided for procedures required for routine maintenance.		
RECOMMENDATIONS OR WARNINGS	Any recommendations for best use and supplementary warning for safety should be declared.		

#### 45. OTOSCOPE AND NASAL SPECULUM

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. At least 2.5V Xenon or Halogen light source.</li> <li>2. Should be a convenient pocket type otoscope.</li> <li>3. Swivelling viewing with at least 3x magnification</li> <li>4. Should be able to detach the otoscope head.</li> <li>5. Should provide no reflections and obstructions.</li> <li>6. Should provide detachable accessories of various sizes.</li> <li>7. Should have inbuilt rechargeable battery.</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

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**46. SUCTION UNIT WITH ACCESSORIES (MANUAL)**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Volt- 230 Vac</li> <li>2. Rating of Motor- continuous</li> <li>3. Suction Bottle Capacity- 2 x 2000 ml minimum (with safety valve)</li> <li>4. Guage- 0 to 760 mm Hg</li> <li>5. Pump- Oil lubricates rotary pump</li> <li>6. Suction Tubings- ID7 mm, 5m long and non-collapsible.</li> <li>7. Should have air tight lids.</li> <li>8. Should have a noiseless Operation</li> <li>9. Should provide filter to absorb moisture and water particles entering into the rotor.</li> <li>10. Should have an external provision for topping up of lubricant.</li> <li>11. Should be well-designed, cabinet made of mild steel powder coated.</li> <li>12. Should bear ISI mark</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**47. BAG VALVE MASK ADULT (SILICON, STEAM, AUTO CLAVABLE)**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Used to provide rescue breathing to patient</li> <li>2. Size: Adult; disposable rubber vinyl bag of 1.5L capacity pressure relief valve. 60 cm H<sub>2</sub>O. Size-5 Mask</li> <li>3. Components: self inflating compressible rubber/ vinyl bag of 1.5L capacity, one way inflating valve, face mask, oxygen reservoir, oxygen port and connecting tube</li> <li>4. Material: high quality plastic/vinyl transparent and for single use;</li> <li>5. Transparent soft pre inflated plastic face mask</li> <li>6. Good quality connecting tube of 3 meter length</li> <li>7. Standardized 15/22 mm fittings.</li> <li>8. Adjustable hook and loop handle.</li> <li>9. Collapsible body and reservoir</li> <li>10. PEEP valves/elbows included; non jam valve with maximum oxygen flow of 8-10 L/minute or more Single use sterilized and disposable pack.</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

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**48. BAG VALVE MASK CHILD (SILICON)**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>Used to provide rescue breathing to patient</li> <li>Size: Child; disposable rubber vinyl bag of 550 ml with pressure relief valve 40cm H<sub>2</sub>O capacity Size-3 Mask</li> <li>Components: self inflating compressible rubber/ vinyl bag of 500 ml capacity, one way inflating valve, face mask, oxygen reservoir, oxygen port and connecting tube</li> <li>Material: high quality plastic/vinyl transparent and for single use;</li> <li>Transparent soft pre inflated plastic face mask</li> <li>Good quality connecting tube of 3 meter length</li> <li>Standardized 15/22 mm fittings</li> <li>Adjustable hook and loop handle</li> <li>Collapsible body and reservoir</li> <li>PEEP valves/elbows included; non jam valve with maximum oxygen flow of 8-10 L/minute or more</li> <li>Single use sterilized and disposable pack.</li> </ol>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

**49. BAG VALVE MASK INFANT (SILICON)**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>Used to provide rescue breathing to patient</li> <li>Size: Infant; disposable rubber vinyl bag of 280 ml with pressure relief valve 40cm – H<sub>2</sub>O capacity Size-1 Mask</li> <li>Components: self inflating compressible rubber/ vinyl bag of 500 ml capacity, one way inflating valve, face mask, oxygen reservoir, oxygen port and connecting tube</li> <li>Material: high quality plastic/vinyl transparent and for single use;</li> <li>Transparent soft pre inflated plastic face mask</li> <li>Good quality connecting tube of 3 meter length</li> <li>Standardized 15/22 mm fittings</li> <li>Adjustable hook and loop handle</li> <li>Collapsible body and reservoir</li> <li>PEEP valves/elbows included; non jam valve with maximum oxygen flow of 8-10 L/minute or more</li> <li>Single use sterilized and disposable pack</li> </ol>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

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**50. NBC CASUALTY BAG HALF (JSS 1195-01:2012)**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. With observation window</li> <li>2. Breathable/ Air Permeable</li> <li>3. Flame retardant</li> <li>4. Oil and Water repellent</li> <li>5. Prevents carbon with skin</li> <li>6. Overall length:2200mm</li> <li>7. Zip length:1750 mm</li> <li>8. Face mask: Compatible with the majority of full face mask</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**51. STRETCHER/SPINE BOARD ACCESSORIES**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Spinal board Stretcher should be made of PE.(polyethylene) Durable, antiseptic and can be used in X-ray.</li> <li>2. Sizes (L*W*H): 190*50*8cm.</li> <li>3. Light Weight.</li> <li>4. Load bearing: 159kg.</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**52. EXPENDABLE MEDICINES/SURGICAL/LAB ITEMS**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Standard quality should be maintained related manuals should be available.</li> <li>2. Rust free for the surgical and lab items.</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

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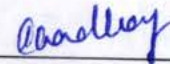


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## 53. WATER POISON DETECTION KIT

CRITERIA	SPECIFICATION				Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	Weight:-3.4 kg					As per Specification
	Test Capacity- 50 test for each poisons and 05 test of nerve agent and microbial contamination, can be used to test the metallic contaminants such as Hg, Mn, Cu, As, Bw contents of the kit :					
	S no	Description	Qty	Unit	Each row should mention its trial criteria	
	1.	Bottles containing test tablets and material	Nos 1-2	12 Nos.	The Board Should Check	
	2.	Reagent solution for for arsenic	Nos 13	1 Bottle	The Board Should Check	
	3.	Transparent bottles of 100 ml capacity	Nos 14-15	2 Nos	The Board Should Check	
	4.	Test paper for testing of mercury	No 16	1 Pkt	The Board Should Check	
	5.	Plain filter paper	No 17	1 pkt	The Board Should Check	
	6.	Test paper for testing of Sulphur ustad	No 18	1 pkt	The Board Should Check	
	7.	Chemical heater assembly	No 19	1 no	The Board Should Check	
	8.	Chemical heater reagent	No 20	1 Bottal	The Board Should Check	
	9.	Reagent solution for sulphur mustard	No 21	1 bottle	The Board Should Check	
	10.	Catalyst solution	No 22	1 bottle	The Board Should Check	
	11.	Microbial contamination testing bottles	No 23	5 nos	The Board Should Check	
	12.	Nerve agent testing bottles	No 24	5 nos	The Board Should Check	
	13.	Glass plunger	No 25	2 nos	The Board Should Check	
	14.	Test tubes	No 26	4 nos	The Board Should Check	
	15.	Dropper	27 no	4 nos	The Board Should Check	
	16.	pH paper	No 28	1 booklet	The Board Should Check	
	17.	Stainless steel scoop	No 29	1 no	The Board Should Check	
	18.	Instruction manual	No 30	1 no	The Board Should Check	
19.	Aluminum work platform	No 31	1 no	The Board Should Check		
20.	Dechlorinating reagent	No 32	1 bottle	The Board Should Check		

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**54. RESIDUAL VAPOUR DETECTION KIT**



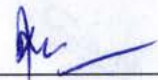


CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	1. Weight 02.00kg approx 2. Detection limit should have- a. Cynogen Chloride 0.01mg/1 b. Hydrogen Cyanide 0.01mg/1 c. Sulpher mustered -0.003mg/1 d. Phospogene -0.01mg/1 3. Sufficient detection tube 4. Sampler pump with spatula.	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

**55. NBC FIRST AID KIT TYPE – A**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	1. Size:-330x145X115mm 2. Weight :-2.00kg 3. Kit contain necessary medicines such as inhaler, auto injector, antibiotic, Paracetamol, Dressing Pad, personnel decontamination kit, TCDP, Amil Nitrate etc. 4. The content of kit housed in box.	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

**56. NBC FIRST AID KIT TYPE - B**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	1. Ergonomic design. 2. Light weight material 3. Single man portability. 4. Size 628X450X370 5. Weight 18kg	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

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**57. TAPE DERMICAL CLOTH 1"**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	1. Dimension:-2.5cm X 9Mtr 2. Hypoallergenic surgical pore adhesive tape.	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

**58. TAPE DERMICAL CLOTH 2"**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	1. Dimension:- 5cm X 9Mtr 2. Hypoallergenic surgical pore adhesive tape	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

**59. WOODEN SPINE BOARD FULL AND HALF WITH VELCRO**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	1. Dimension 1830mm X420mm 2. Wt-50kg 3. Capacity-200kg 4. CT/MRI compatible and radiolucent. 5. Material carbon fiber or fiber glass material 6. Separate hand hold and restraint and smooth for easy and comfortable lifting.	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification

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**60. FULE KIT BAGS HARD**

CRITERIA	SPECIFICATION				Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
<b>GENERAL SPECIFICATION</b>	Sl No	Description	Qty	Unit	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check the specification.</li> </ul>	As per Specification
	1	Bite Sticks Materials	10	No		
	2	Blood pressure cuff with dial, Adult Type Adult	1	Set		
	3	Cervical collar (regular)	5	No		
	4	Cervical collar short Rigid cervical collar	5	No		
	5	Collar stiff Neck regular Rigid cervical. collar-extrication type Material	5	No		
	6	Collar Stiff neck (no neck) rigid cervical collar	5	No		
	7	Collar stiff neck (paediatrics) rigid cervical collar	5	No		
	8	Collar stiff neck tall rigid cervical collar	5	No		
	9	CPR Mask (pocket Mask)	7	No		
	10	Dressing Abdominal	2	No		
	11	Gauze dressing Vaseline 10Pcs/Pkt	2	Pkt		
	12	Glasses Eye Protection	10	No		
	13	Dressing Multi trauma	2	No		
	14	Disposable Obstetrical Kit	1	No		
	15	Penlight Medi	2	No		
	16	Regulator oxygen LSP# 170-020 with lightweight Oxygen cylinder	1	No		
	17	Restraint patient – One parts-1Set	4	No		
	18	Restraint patient – Two parts-1Set	4	No		
	19	Scissors para medical (trauma scissors)	3	No		
	20	Stethoscope	2	No		
	21	Sponge Sterile 4"x4"	10	Pkt		
	22	Tape dermical cloth	5	No		
	23	Full kit Bag(hard)	1	No		
	24	Medical First Aid Dressings	5	No		
	25	Roller bandages 6"	5	No		

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	26	Roller bandages 3"	5	No	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification
	27	Triangular bandage 40"x 40"	20	No		
	28	Cup Paper	20	No		
	29	Tongue Depressor Disposable	10	No		
	30	Gloves Latex Medium	50	Pair		
	31	Gloves Latex large	50	Pair		
	32	Gloves Latex Extra large	50	Pair		
	33	Mask Oxygen-Non Re breather (Adult)	2	No		
	34	Mask Oxygen-Non Re breather (pediatric)	2	No		
	35	Face mask universal size	2	No		
	36	Oxygen cannula Nasal	2	No		
	37	Triage Ribbon Green – 50mtrs, 2.5cm width	1	No		
	38	Triage Ribbon Red – 50mtrs, 2.5cm width	1	No		
	39	Triage Ribbon Black – 50mtrs, 2.5cm width	1	No		
	40	Triage Ribbon Yellow – 50mtrs, 2.5cm width	1	No		
	41	Bandage Elastic 3":	5	No		
	42	Bandage Elastic 6":	5	No		
	43	Padded Board Splint Short T-1cm,L-35cm,W-7cm	5	No		
	44	Padded Board Splint Medium T-1cm,L-90cm,W-7cm	5	No		
	45	Padded Board Splint Large T-1cm, L-135cm	5	No		
	46	Manikin face shield (100pcs – 1Pkt)	100	Pkt		
	47	Airway Oral-60,70,80,90,100 mm	2	Set		
	48	Bag valve mask Adult (disposable)	2	No		
	49	Bag valve mask Child (Disposable)	2	No		
	50	Flexible splints (sams splints) large/medium/small	2	Set		
	51	CPR Board	2	No		
	52	Extrication device	1	No		
	53	Body Bag (Dead Body)	10	No		
	54	Kit carrying Bag	1	No		

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**61. FLEXIBLE SPLINTS LARGE/MEDIUM/SMALL**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
<b>GENERAL SPECIFICATION</b>	<p><b>Small-</b> Length-220mm Width -5mm Height- 108mm Material –Aluminium/Polypropylene Use temperature – From 10<sup>0</sup> C to +55<sup>0</sup>C Storage Temperature from-20<sup>0</sup>C to +60<sup>0</sup>C</p> <p><b>Medium-</b> - Length-460mm Width -5mm Height- 108mm Material –Aluminium/Polypropylene Use temperature – From 10<sup>0</sup> C to +55<sup>0</sup>C Storage Temperature from-20<sup>0</sup>C to +60<sup>0</sup>C</p> <p><b>Large-</b> - Length-905mm Width -5mm Height- 108mm Material –Aluminium/Polypropylene Use temperature – From 10<sup>0</sup> C to +55<sup>0</sup>C Storage Temperature from-20<sup>0</sup>C to +60<sup>0</sup>C</p>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**62. PNEUMATIC SPLINT SET**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
<b>GENERAL SPECIFICATION</b>	<ol style="list-style-type: none"> <li>1. Dimensions bag (Kit 6 sizes)</li> <li>2. Material- HFW +PVC</li> <li>3. -Three splints of different sizes for the arm</li> <li>4. - Three splints of different sizes for the leg</li> <li>5. -Bag made of unbreakable nylon for the containment of the splints</li> </ol> <p><b>Sizes-</b> Air splint arm (370X420mm) Air Splint Arm(640X460mm) Air splint Arm (740X530mm) Air Splint Leg (420X370mm) Air splint Leg(695X370mm) Air Splint Leg( 860X370mm) Latex free. Eco Air Splint.</p>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

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**63. DELUXE OB MANNEQUIN**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Opaque and transparent overlays.</li> <li>2. Vertex, Normal and breech delivery (Forceps, vaccum assist)</li> <li>3. Umbilical cords to clamp and cut</li> <li>4. Disposable umbilical cords , clamps, an extra vulva, a transparent overlay, a skin tone over lay, stimulated blood powder and a carrying case.</li> <li>5. Lifelike pelvic cavity.</li> <li>6. Removable abdominal overlay</li> <li>7. Soft skin vulva( anatomically correct)</li> <li>8. Two infant fetuses( premature and full term with fontanel and cranial sutures)</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**64. PERSONAL DECONTAMINATION KIT**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. PDK houses PDK-1,PDK-2 and RDP, PDK-1 is fulerearth based cotton pouches which can remove small droplets from the contaminated surfaces while PDK -2 is used to remove large volume of contaminated surfaces. RDP in used to remove nuclear / radiological particle.</li> <li>2. This kit consists of three components (a)PDK-1 (b) PDK-II (c)RDP</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**65. CW SAMPLING KIT**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Can detect nerve agent, blister agent, Blood agent &amp; Choking agent rapidly with minimum detection limit (mg/ltr)</li> <li>2. Used to collect soil, liquid and surface samples.</li> <li>3. Kit should contain Teflon container for expandable material for 2-3 each type of sample.</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

**66. NAPS TABLET (60MG/20 TABLETS PACKS)**

CRITERIA	SPECIFICATION	Procedure Suggested For Trial For Board Of Officers	Result Expected Desired
GENERAL SPECIFICATION	<ol style="list-style-type: none"> <li>1. Should be of good quality and long expiring</li> </ol>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check the specification.</li> </ul>	As per Specification

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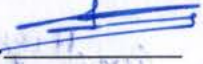


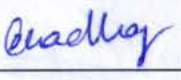




**67. AUTO INJECTION SET**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Deliver dose : 1.0ml.</li> <li>• Viscosity range : 1-50cp depending on needle and injection time.</li> <li>• Injection time : Over period span of seconds.</li> <li>• Injector mechanism : Mechanical, electronic</li> <li>• Injection depth : Intramuscular, subcutaneous</li> <li>• Primary container : Prefilled syringe (PFS), standard or dual chamber</li> <li>• Activation Method : Button activated, shield activated</li> <li>• Feedback mechanism : Audible, visual, tactile</li> <li>• Needle protection : Rigid/rubber needle shield, passive needle cover</li> <li>• Usage : Single dose, multiple dose</li> <li>• Dosages type : Fixed, variable</li> <li>• Needle attachment : Pre-attached, manually attached</li> <li>• Needle insertion /removal : Automatic Manual</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

**68. INTEGRATED HOOD MASK**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Parts : Head , Part of Face , Neck</li> <li>• Layer : 3 Layered Fabric</li> <li>• Material : Stretch free elastic /latex free.</li> <li>• vacuum sealed packing : Yes</li> <li>• Type : Type -6 PPE category III for parts of the body.&amp; MK-I &amp; II.</li> <li>• Sterility assurance level : <math>10^{-6}</math></li> <li>• Size : Small, Medium, Large</li> <li>• Detachable : Yes</li> <li>• Resuscitator : Yes</li> <li>• Leak Tester : Yes</li> <li>• Respiratory Mask : Yes</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

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**69. DECONTAMINATION KIT**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Contents in variable proportion : Fullers earth (calcium, Montmorillonite. Naturally occurring sedimentary clay composed mainly (Alumina, Silica, Iron Oxides, lime, Magnesia and water.</li> <li>Type : DKP2 - MK2 &amp;DKP1</li> <li>Packing : Easy-to-use puffer pack.</li> <li>Warning Instructions : Yes</li> <li>User Manual : Yes</li> <li>Rapid Action : Yes</li> <li>Storage Stability : Yes, Efficiency : High</li> </ul>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check/measure the product.</li> </ul>	As per specification.

**70. MEDICAL TRIAGE (50 METER) GREEN, RED, BLACK, YELLOW**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Colour coding : Yes. Red- Immediate, Yellow – Delayed , Black – Deceased / Expectant, Green- Walking Wounded /Minor.</li> <li>Types : Yes. Simple Triage, Advance Triage, Reverse Triage, Under Triage Over Triage, Telephone Triage</li> <li>Triage Instruction Tag : Yes</li> <li>Material : Stone Paper, Water proof : Yes</li> <li>Disinfect able for mass Casualty : Yes</li> </ul>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check/measure the product.</li> </ul>	As per specification.

**71. PLASTIC SUIT WITH CONFO RESPIRATORY**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Item Weight : 9.6 ounces.</li> <li>Package Dimensions : 14.2 x 10 x 1.7 inches</li> <li>Size : L, XL, XXL, Colour – White, Material – Polymer</li> <li>Pattern : COVERALL</li> <li>Batteries Required? : No</li> </ul>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check/measure the product.</li> </ul>	As per specification.

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**72. PLASTIC BAGS 2' x 3'**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Size: 2" X 3" - 2" Width X 3" Length (Length Excludes Zipper) - 2.0 Mil Clear Sealable Zip Bags.</li> <li>Material : Plastic</li> <li>Water Proof : Yes</li> <li>Airtight : Yes</li> <li>One Touch Seal : Yes</li> <li>Storage : Medical Industrial Application, Food Service, herbs, coins &amp; seeds, treats, pills &amp; vitamins.</li> <li>Food Grade Safe : 100%</li> <li>Durability, Odorless &amp; Non Toxic – Yes</li> </ul>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check/ measure the product.</li> </ul>	As per specification.

**73. ELECTRONIC STETHOSCOPE**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Length : 27 inch</li> <li>Material : Next Generation Tubing</li> <li>Color : Variable</li> <li>Snap Tight Soft Seal Ear`tips : Yes</li> <li>Mode : Bell and Diaphragm</li> <li>Non Chill Diaphragm Cover : Yes</li> <li>Rugged Design : Yes</li> <li>Sound Sensors – Yes</li> <li>USB Drive with Free Software : Yes</li> <li>Visual Display : Yes</li> <li>Frequency Switch for Heart Sound : 44-900Hz</li> <li>Frequency Switch for Breath Sound : 50-2000Hz</li> <li>Ambient Noise Reduction technology and frictional noise dampening features with amplification : Yes</li> <li>Bluetooth technology : Yes</li> </ul>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check/ measure the product.</li> </ul>	As per specification.

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**74. LETEX GLOVES (PAIRS)**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Type of Surgical Glove : Disposable surgical or Gynecological rubber gloves conforming to IS 13422 (1992)-powder free.</li> <li>• Sterility : Sterilized</li> <li>• Finish of outer surface : Smooth</li> <li>• Color – Translucent</li> <li>• Coloring Agent – No, Use - Single</li> <li>• Shelf Life in years – 3</li> <li>• The product should have at least 2/3 rd of the total shelf life available at the time of supply : Yes</li> <li>• Size (Number) : 6.0 ½</li> <li>• Thickness : 0.1 millimetre</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

**75. TONGS 9 (2 FEET)**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Material of Tongs (Chimta) : Stainless Steel (304)</li> <li>• Overall Length of Tongs (Chimta)(In MM) : 600</li> <li>• Width of Tongs Strip (Chimta)(In MM) – 20,</li> <li>• Overall Thickness of Tongs Strip (Chimta) (In MM) : 3</li> <li>• Attachment /Hanging Ring with Tongs (Chimta) : Yes</li> <li>• Diameter of Hanging Ring Rod (in mm) : 6</li> <li>• Finish : Hard Anodized</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

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## 76. VIDEO ANALYTICS

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Components/Modules of AI based Video Analytics Software : AI Based Vehicle Number Plate Recognition System, AI Based Facial Recognition (FRS ), AI Based Parking Violation System, AI Based Wrong Direction/ Wrong Way Detection, AI Based Crowd Estimation, AI Based Abandoned Object, AI Based Advance Intrusion Detection, AI Based Garbage Detection, AI Based Camera Health Monitoring, AI Based Helmet Violation Detection, AI Based Person Count, AI Based Vehicle Counting and Classification</li> <li>OEM Model / Part No : RAVEN</li> <li>Software Description : Video Analytics</li> <li>Software Version : Raven</li> <li>Date of Launch of Version : 2-May-2017</li> <li>Types of License : 2.Subscription</li> <li>"Duration of Subscription (in Years) (Hint : Select '0' if not applicable)" : 3</li> <li>Valid Licence/ Subscription copy to be provided : Yes</li> <li>Maximum user handling capability : 10000</li> <li>Concurrent user handling capability : 1000</li> <li>Hosting Environment/ Deployment Option : 1. On Site / Buyer's Premise, 2. Private Cloud</li> <li>The offered product have support from OEM for : Yes</li> <li>Number of Years upto which support is available from OEM for Updation (Patches and Bug fixes) within support period : 3 years.</li> <li>Number of Years upto which support is available from OEM for Upgradation of version within support period – 5 Years</li> <li>Supported Video File Format : Yes. 1. H.264, 2. H.264+, 3. H.265, 4. MP4, 5. MJPG, 6. AVI, 7. MKV, 8. RTSP stream</li> <li>Supported Image File Format: Yes ANI – Animation, BMP - Bitmap, GIF - Graphics Interchange Format, ICO - Windows Icon, JPEG/JPG - Joint</li> </ul>	<ul style="list-style-type: none"> <li>OEM should submit an undertaking in this regard.</li> <li>Board should check/ measure the product.</li> </ul>	As per specification.

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	<p>Photographic Experts Group, PCX - PC Paintbrush, PNG - Portable Network Graphics, PNM - Portable Any map from the PPM Toolkit, RAS - Sun Raster, SVG - Scalable Vector Graphics, TGA - Targa, TIFF - Tagged Image File Format, WBMP - Wireless Bitmap, XBM - X Bitmap, XPM - X Pix map.</p> <ul style="list-style-type: none"> <li>• Artificial Intelligence and Deep Learning models for detection and recognition : Yes</li> <li>• Minimum Accuracy in Day time by the offered Product (Hint:- Select '0' if not applicable) : 95</li> <li>• Minimum Accuracy in Night time by the offered Product (Hint:- Select '0' if not applicable) : 75</li> <li>• Detection capability of Offered Product : Yes</li> <li>• Vehicle Number Plate Recognition Features : Yes</li> <li>• Capability to search vehicle on the basis of : 1. Vehicle color, 2. Vehicle number plate, 3. Date &amp; time, 4. Location, 5. Type of Vehicle, 6. NA</li> <li>• Scope FRS Facial Recognition Application : Yes</li> <li>• Detection capability of offered product : Yes</li> <li>• Parking Violation Features : Yes</li> <li>• Capability for user to set/configure detection time in seconds (Detection time is defined and elapsed time between vehicle's first detection and the when an alarm is to be raised) (Hint:-Select'0' if not applicable) : 100</li> <li>• Scope of wrong direction : Yes</li> <li>• Wrong Way Detection features : Yes</li> <li>• Scope of Crowd Estimation : Yes</li> <li>• Crowd Estimation features : Yes</li> <li>• Scope of Abandoned Object Detection : Yes</li> <li>• Detection capability of offered Product : Yes</li> <li>• Abandoned Object Detection features : Yes</li> <li>• Maximum False alert percentage per day (Hint: - Select'0' if not applicable) : Yes</li> <li>• Scope of Advanced Intrusion Detection : Yes</li> <li>• Advanced Intrusion Detection features : Yes</li> <li>• Scope of Garbage Detection : Yes</li> <li>• Garbage Detection features : Yes</li> <li>• Scope of Camera Health Monitoring : Yes</li> <li>• Detection capability of Camera Health Monitoring : Yes</li> <li>• Camera Health Monitoring features : Yes</li> <li>• Live Video Interface : Yes</li> </ul>		
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	<ul style="list-style-type: none"> <li>• Camera-level configuration : Yes</li> <li>• Number of Camera can be configured by the offered product : 10000</li> <li>• Key configuration parameters : 1</li> <li>• Filtering and Retrieval : Yes</li> <li>• Number of Video analytics applications that can be executed simultaneously on a single camera by the offered product : 20</li> <li>• Servers configuration required : 32 Core, 64 GB RAM</li> <li>• CPU required : i5 Xeon / (latest update)</li> <li>• Operating Systems supported : Linux / (latest update)</li> <li>• Storage Requirement (in GB) : 500</li> <li>• Supported Web Browsers : Chrome</li> <li>• Supported Database : MongoDB, MySQL / (latest update)</li> <li>• Hyper link to Data sheet : <a href="http://www.pivotchain.com">www.pivotchain.com</a></li> </ul>		
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## 77. PORTABLE SUCTION EQUIPMENT

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Clinical purpose : To aspirate fluids, secretions, or other foreign materials from a patient's airway by means of suction : Yes</li> <li>• Technical characteristics (specific to this type of device) : 0-700 mm Hg <math>\pm</math> 10 mm regulable, flutter free vacuum control knob, 90 ltrs / min, tight fitting jar cap : Yes</li> <li>• User's interface : Manual</li> <li>• Dimensions (Height X Width X Length) Max (cm) : 32 x 17 x 30 cms.</li> <li>• Consumables / reagents (open, closed system) : Open System.</li> <li>• Noise (in dBA) Max (dBA) : 51</li> <li>• Weight (Max) (kg) : 13</li> <li>• Accessories (mandatory, standard, optional); Spare parts (main ones) : N/A</li> <li>• Mobility, portability : Yes</li> <li>• Warranty : 3 Years Minimum.</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/ measure the product.</li> </ul>	As per specification.

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78.	STRAP COLLAR	ITEM PERTAINS TO VETERINARY SECTION.
79.	BAG NOSE LARGE	ITEM PERTAINS TO VETERINARY SECTION.
80.	BAG NOSE SMALL	ITEM PERTAINS TO VETERINARY SECTION.
81.	BLANKET SADDLE	ITEM PERTAINS TO VETERINARY SECTION.
82.	BRIDE WATERING REIN	ITEM PERTAINS TO VETERINARY SECTION.
83.	GIRTH PA SHORT	ITEM PERTAINS TO VETERINARY SECTION.
84.	BUTYL RUBBER GLOVES (INNER AND OUTER)	ITEM PERTAINS TO VETERINARY SECTION.

## 85. NBC PERMEABLE SUIT MG-V

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Specification : As per DRDO Approved</li> <li>• Model : MK-V/DRDO Approved</li> <li>• Technology : High adsorbent ACS (ACS) sandwiched between the fabric layers through a coating process.)</li> <li>• Period of Protection : More than 24 hrs</li> <li>• Effectiveness : Chemical agents in liquid, aerosol and vapour.</li> <li>• Accessories : Yes, (Boots /Overboots, Gloves / Protective Mass etc.)</li> <li>• Launderability : Yes (3 to 6 times )</li> <li>• Fire Retardency/ Oil &amp; Water repellent : Yes</li> <li>• Comfort : High Level</li> <li>• Weight : Light weight</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/ measure the product.</li> </ul>	As per specification.

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**86. NBC OVER BOOTS**





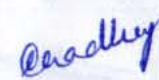


CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Size : Small , Medium , Large</li> <li>• Material : impermeable butyl rubber</li> <li>• Protection : NBC Protection</li> <li>• Weight : approx. 1.3kg (each pair),</li> <li>• Accessories : Yes.</li> <li>• Effectiveness : NBC contaminated environments</li> <li>• BTT (Break through Time) : 6 Hours,</li> <li>• Comfortable : High Level</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

**87. NBC CASUALTY BAG FULL**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Packed Dimensions : 352 x 300 x 80mm (L x W x H)</li> <li>• Deployed Dimensions : 2115 x 600 x 300mm (L x W x H)</li> <li>• Weight : 950gr.</li> <li>• Color : RAL 7013 olive-green / (on request)</li> <li>• Material : EUROLITE® NBC barrier film</li> <li>• Packaging : Bags are vacuum packed and easily opened.</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

**88. MANUAL SUCTION UNIT (V-VAC)**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Vacuum range : 170 - 380 mmHg (23-51 kPa)</li> <li>• Peak Flow rate : 70 liters/minute.</li> <li>• Cartridge capacity : 425 ml canister.</li> <li>• Weight : 0.292 kg (0.644 lbs)</li> <li>• Size : 34.3 x 6.4 x 12.2 cm (13.5" x 2.5" x 4.8")</li> </ul>	<ul style="list-style-type: none"> <li>• OEM should submit an undertaking in this regard.</li> <li>• Board should check/measure the product.</li> </ul>	As per specification.

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## 89. ECG MACHINE WITH ANALYZER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>1. It should have multi channel ECG Recording.</li> <li>2. Storage memory for storing ECGs for Later printing.</li> <li>3. Automatic and manual recording modes.</li> <li>4. Dual Power Supply Mains &amp; Battery Operation.</li> <li>5. Built in recharging battery.</li> <li>6. Power Supply Range may be AC 230V +/- 10%</li> <li>7. Power consumption AC 230V +/- 10%</li> <li>8. Battery (built-in) must be rechargeable NIMH batteries 10x1.2 volts, 1500mAh</li> <li>9. Battery Capacity is required at least for 1 hour</li> <li>10. Battery indicator should be present</li> <li>11. Battery low indicator should be present.</li> <li>12. Operating temperature must be 10 to 50 degree Celsius.</li> <li>13. Safety standard should be complaint to class I type CF, CE 0470.</li> <li>14. ECG Acquisition: 11 Bits, 1000 samples/ sec/channel printing and Filters.</li> <li>15. ECG leads : Standard 12 leads.</li> <li>16. Recording sensitivity is required Manual mode 2.5-5-10-20mm/mV+/- 5% and Automatic according to number of Channels.</li> <li>17. Filters must be Main &amp; Muscle Interference modified digital notch 50-60 Hz.</li> <li>18. Anti drift filter should be Digital 0.5 Hz Anti Drift High Pass linear Phase filter always enabled and cannot be switched off.</li> <li>19. Input Dynamics should be +/- 300mV @ 0 Hz+/- 5mV in the pass band.</li> <li>20. Input impedance &gt; 1000 m ohms.</li> <li>21. Time constant &gt; 3.2 seconds.</li> <li>22. CMRR is required &gt; than 100dB @ 50 Hz</li> <li>23. DF protection should be built in</li> <li>24. Recording system : Thermal printer 8 dots/mm. 110mm usable print width.</li> <li>25. Thermal paper must be compatible with system : 100 Nos.</li> <li>26. Paper transport speed should be 5-25-50mm/sec +/- sec.</li> <li>27. Must have patient cable</li> <li>28. Chest electrodes - 6 Nos.</li> <li>29. Limb electrodes - 4 Nos.</li> <li>30. Gel Bottle - 25 Nos.</li> </ol>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.

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	31. User Manual (Bilingual) – 1 No. 32. Battery charger – 1 No. 33. Full system guarantee – 5 years (comprehensive plan onside) 34. To Quote AME Rates for next 5 years.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

### 90. BODY COMPOSITION ANALYSER:

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	Type – Portable Body Mass Index Machine Purpose – For analyzing the body mass index of any person automatically without manual feeding any measurements. 1. Can measures Body Mass Index with reference to weight, height and age of the person under check. 2. Should be light weight and portable in a small box or single bag. 3. Should be user friendly and easy to operate. 4. Need low maintenance. 5. Less area for installation. 6. Adjustable horizontal piece hosting the sensor and display. 7. Recording the reading should be digitalised. 8. Alarm for over load and malfunction is required. 9. Built in battery backup. 10. Charging adapter and Battery pack be provided. 11. Carrying Case be provided. 12. Supply of free spare parts under warranty is need.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

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**91. FIRST AID BOXES**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Plastic material of carry case. 2. Locking mechanism in carry case. 3. First Aid Guide. 4. Words "FIRST AID KIT" letters not less than 20mm in height and First Aid Symbol. 5. Size: As per requirement. 6. Easy to carry. 7. Should have proper space and separate sections for first aid items.	Board should check or measure the product.	As per specification.

92.	HUMAN MEDICINES –	SPECIFICATION NOT REQUIRED
93.	SADDLE SU PATTERN 02 BARSIDE SHAKED NEAR	ITEM PERTAINS TO VETERINARY SECTION.
94.	HEAD BRTIDON PGS SMALL	ITEM PERTAINS TO VETERINARY SECTION.
95.	COLLAR HEAD SU LARGE MK-IV	ITEM PERTAINS TO VETERINARY SECTION.
96.	ROPE MK-I BAGGAGE	ITEM PERTAINS TO VETERINARY SECTION.

**97. TELETECTOR**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	Display unit: By analog meter Detectors: Two GM tubes Energy compensated 1. Low Range: 0 mR/hr - 2 R/hr 2. High Range: 0 mR/hr -1000R/hr 3. Radiation Detected: Beta and Gamma/X-ray (with suitable Beta discriminator window/ Rubber Cap) 4. Energy range:80 Kev – 2Mev +/- 15 % or better Accuracy:±15% (calibration with standard source Cs-137/Co-60is required) 5. Range Selection: By Rotary switch mounted on the front panel 1.0-1000R/hr (0-10Sv/hr) 2.0-50R/hr (0-500mSv/hr) 3.0-2R/hr (0-20mSv/hr) 4.0-50mR/hr (0-500μSv/hr) 5.0-2mR/hr (0-20μSv/hr) 6. Resolution: Following resolution should be provided 1.0-1000R/hr with Resolution 1R/hr 2.0-50R/hr with Resolution 10mR/hr 3.0-2R/hr with Resolution 1mR/hr 4.0-50mR/hr with Resolution .1mR/hr 5.0-2mR/hr with Resolution .1mR/hr	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	<p>7. Over Load Test: The instrument should sustain on overload, 10 times of maximum range. Change over scale: Scale should be coupled with range selection switch.</p> <p>8. Scale Illumination: Automatic when Instrument is switch ON</p> <p>9. Telescopic Probe: Self-contained Stainless steel tube extendable up to 4m.</p> <p>10. Audio: Audio should change with exposure rate. Audio can be provided either by earphone or by audio speaker with plug.</p> <p>11. Power: Alkaline Battery operated. The supplier shall provide 6 nos. spare battery along with the instruments.</p> <p>12. Battery life: About 60 hours intermittent (with alkaline battery) or better</p> <p>13. Display Meter: Noise should not pickup by the vibration or shock on meter.</p>	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

#### 98. G M SURVEY METER MINI RAD METER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<p>1. Should be hand held</p> <p>2. Should be battery operated</p> <p>3. Detector: One Energy compensated GM tube, energy response according to ambient dose equivalent H*(10)</p> <p>4. H*(10) ambient dose equivalent dose and dose rate</p> <p>5. Radiation detection required for Gamma, X-ray, 48keV to 3MeV. Alpha, Beta radiations with an external probe having large area alpha, beta contamination monitoring provision</p> <p>6. Dose rate measurement range is required 0.01 micro Sv/h to 0.1 Sv/h</p> <p>7. Dose measurement range is required 0.01 micro Sv to 10 Sv</p> <p>8. Calibration accuracy: +/- 5%, Cs-137, calibration direction and calibration field, temperature +20 degree Celsius</p> <p>9. Dose rate linearity: +/- 15% +/- least significant number 0.05 micro Sv/h to 0.1 Sv/h</p> <p>10. Variation of the response due to photon radiation energy and angle of incidence (Re,A): 71% , 160% (48 keV to 3 Mev); +/- 60%.</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.

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	11. Configurable units: Sv, Sv/h, R, R/h, for large area alpha, beta contamination probe Gy, Gy/h, cps, cpm, dpm and Bq 12. Real time clock function 13. Configurable visual, audible and internal vibrator alarm 14. RF-communication and USB-communication with suitable adopter 15. Customised LCD display with 5digit 14-segment floating point area and special symbols for alarm, external probe, battery, RF-communication, vibration alarm, chirp and mute. Energy save backlight with automatic illumination control 16. Power supply: 2 AA size batteries (alkaline or NiMH). Each unit must supply with 4 Numbers of AA size NiMH batteries with battery charger. 17. Contacts for external power with cable and suitable adopter. Contacts for external power with cable and suitable adopter/connector for charging NiMH batteries (Charging conditions 5-35 degree Celsius). Additional one set of NiMH batteries shall be provided with each unit. 18. Operation time with fresh alkaline batteries more than 4 months at background radiation level at +23 degree Celsius, 8+/-2 hours daily use 19. Operation time with fully charged NiMH batteries more than 1 month at background radiation level at +23 degree Celsius or more, up to 8 h daily use 20. Case: High impact durable plastic reinforced with glass fiber, immersion proof, rubber grip and cushion around the case 21. Enclosure class IP67 (IEC 60529), water proof including battery compartment 22. Weight of radiation survey meter without batteries: not more than 220 g 23. Wrist/ neck strap and belt clip for radiation survey meter should be provided 24. Environmental characteristics: -25 to +60 degree Celsius (operating temperature) - 40 to +70 degree Celsius (storage temperature) Relative humidity: up to 85% at +35 degree Celsius 25. Should fulfill the RF-immunity levels of applicable standards 26. Internal memory to store measurements	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

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## 99. MINI RAD METER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>Should be hand held</li> <li>Should be battery operated.</li> <li>Detector : one Energy compensated GM tube, energy response according to ambient dose equivalent <math>H^*(10)</math>.</li> <li><math>H^*(10)</math> ambient dose equivalent dose and dose rate.</li> <li>Radiation detection required for Gamma, X-ray, 48KeV to 3MeV. Alpha, Beta radiations with an external probe having large area alpha, beta contamination monitoring provision.</li> <li>Dose rate measurement range is required 0.01 micro Sv/h to 0.1 Sv/h.</li> <li>Dose measurement range is required 0.01 micro Sv to 10 Sv.</li> <li>Calibration accuracy: +/- 5%, Cs-137, calibration direction and calibration field, temperature +20 degree Celsius.</li> <li>Dose rate linearity: +/- 15% +/- least significant number 0.05 micro Sv/h to 0.1 Sv/h.</li> <li>Variation of the response due to photon radiation energy and angle of incidence (Re,A) : 71%, 160% (48KeV to 3 MeV); +/- 60%.</li> <li>Configurable units: Sv, Sv/h, R/h, for large area alpha, beta contamination probe Gy, Gy/h, cps, cpm, dpm and Bq.</li> <li>Real time clock function.</li> <li>Configurable visual, audible and internal vibrator alarm.</li> <li>RF – communication and USG-communication with suitable adopter.</li> <li>Customised LCD display with 5 digit 14-segment floating point area and special symbols for alarm, external probe, battery, RF-communication, vibration alarm, chirp and mute. Energy save backlight with automatic illumination control.</li> <li>Power supply: 2 AA size batteries (alkaline or NiMH). Each unit must supply with 4 numbers of AA size NiMH batteries with battery charger.</li> <li>Contacts for external power with cable and suitable adopter. Contacts for external power with cable and suitable adopter/ connector for charging NiMH batteries (charging conditions 5-35 degree Celsius). Additional one set of NiMH batteries shall be provided with each unit.</li> <li>Operation time with fresh alkaline batteries more than 4 months at background radiation level at +23 degree Celsius or more, up to 8 h daily use.</li> <li>Operation time with fully charged NiMH batteries more than 1 month at background radiation level at +23 degree Celsius or more, upto 8 h daily use.</li> </ol>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.

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	20. Case : High impact durable plastic reinforced with glass fiber, immersion proof, rubber grip an cushion around the case. 21. Enclosure class IP67 (IEC 60529), water proof including battery compartment. 22. Weight of radiation survey meter without batteries : not more than 200 gm 23. Wrist/neck strap and belt clip for radiation survey meter should be provided. 24. Environmental characteristics : -25 to +60 degree Celsius (storage temperature) Relative humidity : upto 85% at +35 degree Celsius.. 25. Should fulfil the RF-immunity levels of applicable standards. 26. Internal memory to store measurements.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

#### 100. CONTAMINATION MONITOR (BETA & GAMMA)

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Monitor shall be based on micro controller system. 2. GM Detectors with efficiency better than 10%. 3. Contamination detection for both sides of right hand and left hand, left foot and right foot and clothing. 4. Hand insertion shall be vertical to avoid dust and water collection on the detector sensing area. 5. Must has display for 1. Counts in progress 2. Ready 3. Clear 4. Contamination and 5. In case of contamination, message shall be displayed in English and Tamil. 6. One relay with 2 C/O contacts shall energize for 5 Sec (provision for changing this time) in case of "CLEAR" and it remains reenergise otherwise. 7. Monitor casing shall be covered totally to prevent dust and rat entry. All electrical connections shall be through Bulkhead connectors along with mating connectors. 8. P rovision for computer interface shall be made available. 9. Input power: 240 V AC +/-10%50 Hz with ON/OFF Switch. 10. Ambient: Temperature upto 45 Deg C and RH upto 90%. 11. Monitor shall be mounted on a trolley with Wheel. 12. Measurement range: 0-9999 CPS.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	13. Alarm range: 1-9999 CPS. 14. Acquisition time, Background count time, Background updating time shall be user programmable. 15. Provision for enabling/disabling individual detectors is required. 16. Test points for all Power supplies may be provided. 17. Cloth monitoring will be done first. If it is clear allow 10 sec time (this shall be programmable) to step in for monitoring hand and foot. If that also shows clear, the above said relay at Sl.no6 operates. Provision shall exist to make cloth monitoring enable/disable.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

### 101. BETA GAMMA COUNTING SYSTEM

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Detector: End window GM tube with area density of window: 1.5 to 2.0 mg/cm <sup>2</sup> . 2. Efficiency of system: Beta detection: Typical Efficiency of GM tube Detector for Beta radiation (Sr-90) at 2 cm distance ~ 6% 3. Slope of G.M. tube may be Less than 5 % per 100 volts 4. Solid State Micro-Controller may be provided. 5. Operating Modes should have Provision of preset timer, preset counts, CPS & CPM 6. HV Supply may be adjustable to more than 1000 V by setting 7. Should have provision of data storage and provision of data transfer 8. Power: 240 V (± 10%), 50 Hz AC Mains 9. Holder assembly: Planchet holder assembly having provision of mounting the G.M. tube at its top and with nearly 6 tray mounting grooves and SS tray with central hole of approx. 33 mm diameter 10. Lead Shield: Lead shield rings (nearly 50 mm Pb with 3mm Al liner) with door arrangement for installing GM tube and planchet holder is required.	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		

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Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet	Board should check or measure the product.	

## 102. PORTABLE GAMMA SPECTROMETER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>1. Detector Dimensions :4.75" L (12.1cm) x 2.5" W (6.4 cm) x 1.22" H (3.1cm) (approx)</li> <li>2. Should be light weight.</li> <li>3. Should be Easy to operate 5 button keypad</li> <li>4. Audio &amp; visual alarm with vibration may be provided.</li> <li>5. Micro controller based architecture may be provided.</li> <li>6. Sodium doped Cesium Iodide crystal (CsI (Na) ½ " x 1 ¼ " (13mm x 38mm)</li> <li>7. Internal Lithium Ion battery with charging LCD indicator Battery life up to 10 hours. Battery recharging time up to 4 ½ hours using wall charger or PC USB</li> </ol>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.
ENVIRONMENTAL	<ol style="list-style-type: none"> <li>1. Operating Temperature : 14°F (-10°C) to + 113°F (+45°C)</li> <li>2. Shock Resistance : up to 1 meter drop test</li> <li>3. DISPLAY</li> <li>4. Viewing area : 2 ½ " L (6.35 cm)</li> <li>5. LCD with backlight 128 x 128 resolution</li> <li>6. Backlight auto off : 180 seconds with push button auto on</li> <li>7. Battery level indicator</li> <li>8. Warning Messages : move closer, move away, high dose move away, exceeds threshold, dose rate above threshold, stabilization off on ID , stabilization required re calibration required , memory is full, neutrons detected (with optional Neutron Detector)</li> <li>9. Real time spectrum display shows accumulated spectrum</li> <li>10. LCD with backlight 1'28 x 128 resolution</li> <li>11. Menu feature selection controlled by a five push button actuation</li> <li>12. Selectable features : Automatic or Manual Modes Stabilization mode, CPS Alarm Threshold, Dose Alarm Threshold, Identification Time</li> <li>13. PC configurable : Reports, Date &amp; Time, Units of Measure, Language etc</li> <li>14. Selectable displayed units – CPS, R/hr, Sv/hr</li> <li>15. RESPONSE / SENSITIVITY</li> </ol>		

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	16. Energy Range : 30 KeV – 3.0 MeV (Gamma) 17. Dose Rate Range : From 0.01 $\mu$ Sv/hr to 10.0 mSv/hr 18. Resolution : 9% or better at 662 KeV 19. Gama Spectrum : 1024 Channels 20. Optional neutron detector sensitivity : 0.6 CPS/NV 21. Supports auto stabilization – Range 41°F (5°C) to 131°F Easy to operate 5 button keypad 22. Audio & visual alarm with vibration 23. Micro controller based architecture 24. Sodium doped Cesium Iodide crystal (CsI (Na) ½ " x 1 ¼ " 25. (13mm x 38mm) 26. Internal Lithium Ion battery with charging LCD indicator 27. Battery life up to 10 hours 28. Battery recharging time up to 4 ½ hours using wall charger or PC USB	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
ENVIRONMENTAL	<ul style="list-style-type: none"> <li>Operating Temperature : 14°F (-10°C) to + 113°F (+45°C)</li> <li>Shock Resistance : up to 1 meter drop test</li> </ul>		
DISPLAY	1. Viewing area : 2 ¼ " L (6.35 cm) 2. LCD with backlight 128 x 128 resolution 3. Backlight auto off : 180 seconds with push button auto on 4. Battery level indicator 5. Warning Messages : move closer, move away, high dose ate move away, exceeds threshold, dose rate above threshold, stabilization off on ID , stabilization required re calibration required , memory is full, neutrons detected (with optional Neutron Detector) 6. Real time spectrum display shows accumulated spectrum 7. LCD with backlight 1`28 x 128 resolution 8. Menu feature selection controlled by a five push button actuation 9. Selectable features : Automatic or Manual Modes Stabilization mode, CPS Alarm Threshold, Dose Alarm Threshold, Identification Time 10. PC configurable : Reports, Date & Time, Units of Measure, Language etc. 11. Selectable displayed units – CPS, R/hr, Sv/hr		
RESPONSE / SENSITIVITY	1. Energy Range : 30 KeV – 3.0 MeV (Gamma) 2. Dose Rate Range : From 0.01 $\mu$ Sv/hr to 10.0 mSv/hr 3. Resolution : 9% or better at 662 KeV 4. Gama Spectrum : 1024 Channels 5. Optional neutron detector sensitivity : 0.6 CPS/NV 6. Supports auto stabilization – Range 41°F (5°C) to 131°F		

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<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet	Board should check or measure the product.	

### 103. MICRO R SURVEY METER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>1. Detector: Plastic scintillate detector</li> <li>2. Radiation Detected:(Beta/Gamma)</li> <li>3. Count Rate Range: Upto 100 KCPS, Upto 100 KCPM</li> <li>4. Dose rate Range:1μR/h to 200 mR/h, 0.01 μSv/h to 1.99 mSv/h with Auto RangeSelection</li> <li>5. Accumulated Dose:1μR to 9999999μR / 00000.01μSv to 99999.99μSv with time hh:mm</li> <li>6. Display units: μR/h, mR/h, μSv/h</li> <li>7. Alarm: Audio &amp; visual settable alarm for dose rate and count rate</li> <li>8. Time Constant: Auto or Manual</li> <li>9. Accuracy:±15% (Cs-137)</li> <li>10. Micro Controller Based</li> <li>11. Display:16 x 2 Character</li> <li>12. Back-lit LCD. Backlit</li> <li>13. Auto off: Turn off automatically after 10 sec &amp; ON by pressing any key.</li> <li>14. Bargraph:4 decade bar graph for dose rate upto 10mR/h.</li> <li>15. Chirp: Buzzer sound per count.</li> <li>16. User Interface: Menu driven with STORE, UP, DOWN, LEFT, RIGHT, ENTER &amp; UNIT, CHIRP.</li> <li>17. Calibration Factor: User settable calibration factor for dose &amp; dose rate range:-50% to +50%</li> <li>18. Data Storage and Retrieval: Last 1000 readings with Serial Number, Real Date &amp;Time for Dose Rate, Count Rate and Preset Time.</li> <li>19. Recall Menu: Recall of saved data.</li> </ol>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.

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	20. Block Menu: Data transfer to PC via serial port delete with FROM & TO range. Serial Port: RS232, 9600bps.EHT: Suitable Voltage for the detector. Power: Rechargeable batteries with battery charger. 21. A provision should be available for the batteries to be charged without removing them from instrument. 22. Accessories (with each unit): Additional1 set of Rechargeable batteries, Battery charger, carrying case to be provided with this instrument.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

#### 104. PORTABLE ALPHA CONTAMINATION MONITOR

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<b>DETECTOR *</b> Radiation Detected Detector: Alpha <ul style="list-style-type: none"> <li>Built-in-ZnS Scintillator covered with aluminized mylar &amp; with 2" <math>\phi</math> PM tube 9256B of M/s EMI or equip.</li> <li>Scintillation Window</li> <li>Circular window of 11cm diameter with operating area &gt;80%</li> <li>Efficiency background</li> <li>&lt; 30 Counts/hrs</li> </ul> <b>SCALER</b> <ul style="list-style-type: none"> <li>Counting Capacity</li> <li>0-9999 counts</li> <li>Display - 0.5" Height, 4 digit LCD</li> </ul> <b>GATE TIME</b> <ul style="list-style-type: none"> <li>1 Minute or Manual, with built in timer</li> </ul> <b>TIMER</b> <ul style="list-style-type: none"> <li>Manual Mode</li> <li>Controlled by START / STOP switches</li> <li>Auto Mode</li> <li>Starts with START switch &amp; stops by itself after 1 minute</li> <li>Reset</li> <li>To reset SCALER &amp; Timer</li> </ul>	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	<b>CONTROL &amp; INDICATIONS</b> <ul style="list-style-type: none"> <li>• Power on</li> <li>• Toggle switch with LED indication</li> <li>• Gate on indication</li> <li>• LCD Colour</li> <li>• Low Batt indication</li> <li>• LCD Dot, when battery Voltage falls below 5.5 V</li> <li>• Over Range Indication</li> <li>• LCD Dot, when count exceeds 9999</li> <li>• HV</li> <li>• 500V- 1000V DC (Set as suitable for detector)</li> <li>• Power</li> <li>• 7.5VDC : 1.5V x 5, R14 size batteries as well as battery eliminator</li> <li>• Accessory</li> <li>• Battery Eliminator</li> </ul>	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

### 105. IODATED TAB – QRs/TDs NOT REQUIRED.

### 106. ELECTRONIC DOSIMETER (DIGITAL):

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> <li>1. Detector : Geiger-Muller tube</li> <li>2. Dose Equivalent (DE) measurement range :1 <math>\mu</math>Sv-25 Sv</li> <li>3. Dose Equivalent rate (DER) measurement range :0.1 <math>\mu</math>sv/h – 100mSv/h</li> <li>4. Energy range :48keV- 3.0 MeV</li> <li>5. DE measurement accuracy :+/- 15%</li> <li>6. DER measurement accuracy :+/- (10+0.0005/h + 0.05) %, (H-DER value)</li> <li>7. Energy response relative to 0.662 MeV</li> <li>8. in the range from 0.048-3.0 MeV no more than 29%</li> <li>9. Thresholds :2 independent thresholds for both DE and DER</li> <li>10. Alarm type :Visual, Audible, Vibration</li> </ol>	OEM should submit an undertaking regarding Board should check or measure the product.	As per specification.

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	11. Memory :Non-volatile 12. P C Communication :USB 13. Data Exchange :GPS 14. Power Supply :One rechargeable battery LIR2450 3.8 (+0.4; - 0.2) V 15. Battery Lifetime :PM1211-02 at least 4 months with GPS used a least 15 days 16. Operating temperature :From -20°C to 60 °C 17. Humidity :Up to 98 % at 35°C 18. Atmospheric pressure :From 84 to 107.7 kPa 19. Ingress protection :IP54 20. Dimensions :128 x 48 x 20 mm 21. Weight 1340 G (including battery)	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

### 107. THERMO LUMINESCENT DOSIMETER (TLD) :

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	1. Light Source : Tungsten Halogen Lamp 2. Diffraction : Grating (lines/mm) 1800 3. Switching of Light Source : Automatic 4. Wavelength Setting And Scanning : Automatic 5. Type of Spectrophotometer : VISIBLE 6. Type of Optical System : Split Beam 7. Monochromator Type : Czerny-turner 8. Detector Type : Photodiode 9. Spectral Bandwidth Type : Fixed Bandwidth 10. Source Wavelength : Minimum 320 nanometer 11. Source Wavelength : Maximum 1100 nanometer 12. Resolution : 0.5 nanometer 13. Wavelength Accuracy : (+/-) 0.5 nanometer 14. Bandwidth (nm) : 5.0 15. Focal length (mm) : 150 to 199	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.

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	16. Photometric measurement modes : Transmittance, Absorbance, Concentration (Wavelength, time)	OEM should submit an undertaking regarding its quality and specifications.	As specification. As specification.
	17. Photometric Absorbance : (Max) (Abs) (+/-) 5		
	18. Photometric Absorbance Accuracy : (Max) (+/-) 0.002		
	19. Photometric Transmittance : (Max) (+/-) 100 percent		
	20. Photometric Transmittance Accuracy : (Max) (+/-) 0.002 percent	Board should check or measure the product. OEM should submit an undertaking regarding	
	21. Photometric Reflectance : (Max) (+/-) 0 percent		
	22. Display In : built display		
	23. Display type : LCD touch screen		
	24. Display Size : 7 inch		
	25. Test result printing : Through external printer		
	26. If inbuilt printer : Type of printer N/A		
	27. Internal storage : (GB) 32		
	28. Maximum Path Length of sample : 10 millimeter		
	29. Number of Cuvettes supplied-inclusive in the scope of supply : 2		
	30. Spares and Consumables inclusive in the scope of supply : No		
	31. Minimum Operating Temperature : 10 degree Celsius		
	32. Maximum Operating Temperature : 50 degree Celsius		
	33. Operating Humidity : (RH) (%) at 40 degree C 85 percent		
	34. Onsite Warranty : 2 year		
	35. Availability of Spares (at extra cost) : 10 year		
	36. Availability of UL/CE Certification as per EN 61010-1:2010 Safety requirements for electrical equipment for measurement, control, and laboratory use General requirements		
	37. Conformance to EMC/EMI as per EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use		
	38. Availability of Test Reports from Central Govt / NABL approved / ILAC accredited lab to prove conformity to the specification		
<b>Requirement for sign-off</b>	Demonstration to the uses while delivering the product.		
<b>Training of Staff (Medical, Paramedical, Technicians)</b>	Training of users in handling and basic maintenance shall be provided.		
<b>Warranty</b>	3 years warranty.		
<b>Operating Manuals, Service Manuals, other Manuals.</b>	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

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**108. PORTABLE DECONTAMINATION APPARATUS:**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>DAP is made up of-Stainless Steel</li> <li>Provision -For pressurizing manually as well as from a vehicle compressor</li> <li>Uses-DAP is designed for working at a safe distance from the contaminated surface</li> <li>Shelf Life-5 Years for all non metallic components and 10 years for metallic components</li> <li>The DAP is meant for decontamination purposes on a small scale.</li> </ul>	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

**109. BATTERY OPERATED AIR SAMPLER WITH FILLER PAPER**

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>Cat No :710-0869</li> <li>Air Flow :100 l/min</li> <li>Use with :90mm Petri dishes</li> <li>Portable :Yes</li> <li>Battery :Rechargeable</li> <li>Battery Life :70 000 litres</li> <li>Speed Sensor :Yes</li> </ul>	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

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Member:1.

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# 110. MASK OXYGEN CHILD NON-REBREATHER (UNIVERSAL SIZE)

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Nebulizer Mask : Child</li> <li>• Sterility : Sterile</li> <li>• Utility : Single use – Disposable</li> <li>• Soft Clear Medical Grade Material : 100 % PVC</li> <li>• Connecting Channel or tube : With</li> <li>• Chamber or Swivel connector: With</li> <li>• Edges of the Mask : Feathered</li> <li>• Compatible with all kind of Nebulizers</li> <li>• Mask in Anatomical form</li> <li>• Nebulizing Rate (CC/min) : 0.2</li> <li>• Adjustable straps</li> </ul>	OEM should submit an undertaking regarding its quality and specifications.  Board should check or measure the product.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.		
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

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