

#	Item Name	Quantity
01	<p>Ambubag Valve Masks (BVM) Pediatric; Masks for Neonate,</p> <p><i>Brief description</i> A neonatal self-inflating resuscitator is used to ventilate a neonate with a body weight less than 5 kg. Ventilation can be done with ambient air or with oxygen; the device can be totally disassembled and is easy to clean and disinfect. All parts are manufactured with durable and high-quality materials that can withstand a variety of cleaning methods and a range of storage conditions. It is supplied as a complete set with:</p> <ul style="list-style-type: none"> • Non-rebreathing patient valve with a pressure limiting valve so that airway pressure does not exceed 4.5 kPa (45 cmH2 O) and can generate an airway pressure of at least 3 kPa (30 cmH2 O). • Masks: translucent, in two different sizes: Size 0 (preterm and low-birth-weight baby), round type, outer diameter 35–50 mm; Size 1 (term baby), round type, outer diameter 50–65 mm. Silicone rubber or any material fulfilling at least the standards ISO 10993-1; ISO 10993-5; ISO 10993-10 or equivalent; or classified as USP Class V. • Compressible self-refilling ventilation bag: silicone rubber or any other material fulfilling the standards. Bag size: 200–320 mL. Intake valve with optional nipple for O2 tubing: polycarbonate/ polysulfone or other material fulfilling the ISO 10651-4 or equivalent. <ol style="list-style-type: none"> 1. A portable manually operated resuscitator (Ambu bag) for pediatric use. 2. Must have pressure relieving valve and rubber bag of ~ 700 ml 3. It shall be possible to override the pressure relief valve in order to provide higher pressure ventilations. 4. Offer shall include one set of all available pediatric size masks. Facemasks shall be anatomically shaped. 5. It shall be supplied with a tube for introducing oxygen: the oxygen concentration must be able to be as high as 55%. 6. The resuscitator must be steam sterilizable 7. The following specifications shall be provided: <ul style="list-style-type: none"> • Tidal volume 	4

	<ul style="list-style-type: none"> • Dead space • Inspiratory and expiratory resistance pressures • Maximum acceptable temperatures (for sterilizing) • Patient connection dimensions • Dimensions of auxiliary connections. • The pressure at which the pressure relief valve activates <p>8. Storage and carrying case shall be included</p> <p>Standards, Safety and Training, warranty</p> <ul style="list-style-type: none"> • Should be FDA approved or CE marked • Application training must be provided to the users. • 12 months from date of installation and commissioning 	
02	<p>Ambubag Valve Masks (BVM): Adult, (with Operable Pressure</p> <ul style="list-style-type: none"> • 600ml. self-inflating double ended silicone bag with mounts incorporating Reservoir valve and side feed oxygen inlet. • Type “L” nonbreathing valve with pressure limiting device wherein it will open if the inspiratory pressure is more than 60cms of water (9282) • Size 4 Clearhood facemask with silicone cuff • 1.5mtrs oxygen enrichment tubing& 2600 ml Reservoir bag all in a carrying case. 	8



1. A portable manually operated resuscitator (Ambu bag) for adult use.
2. To incorporate a pressure relieving valve and rubber bag of ~ 2000 ml
3. It shall be possible to override the pressure relief valve in order to provide higher pressure ventilations.
4. Offer shall include one set of all available adult size masks. Facemasks shall be anatomically shaped.
5. It shall be supplied with a tube for introducing oxygen: the oxygen concentration must be able to be as high as 55%.
6. The resuscitator must be steam sterilizable
7. The following specifications shall be provided:
 - a. Tidal volume
 - b. Dead space
 - c. Inspiratory and expiratory resistance pressures
 - d. Maximum acceptable temperatures (for sterilizing)

	<p>e. Patient connection dimensions</p> <p>f. Dimensions of auxiliary connections.</p> <p>g. The pressure at which the pressure relief valve activates</p> <p>8. Storage and carrying case shall be included</p> <p>Standards, Safety and Training and Warranty</p> <ul style="list-style-type: none"> • Should be FDA approved/CE marked • Application training must be provided to the users. • 12 months from date of installation and commissioning 	
03	<p>BED, Hospital, Ward Adult, with Mattress</p> <p>Bed - specification</p> <ol style="list-style-type: none"> 1. Frame work made of rectangular/square mild steel tube 2. Head and foot end of steel tube with laminated panels 3. Rigid mesh mattress platform 4. Head rest adjustable on ratchet 5. Four legs with castors 6. Knock down construction 7. Size: 2000 x 900 x 600mm <p>Mattress – specification</p> <ol style="list-style-type: none"> 1. Width: 36" <p>Length: 76" - 78"</p>	3
04	<p>Bowl with bowl stand</p> <p>Size (Dimensions in Length X Breadth X Height) Bowls of approx 375mm</p> <p>Height 850mm</p>	6



1. this stand with removable bowl should be designed for use in the operating room, with the following features.
2. It shall accommodate a single SS bowl.
3. It shall be mounted on 5 anti-static swivel castors.
4. Maneuvering the unit should require minimal physical effort.
5. It shall be constructed entirely in 18/10 stainless steel.
6. Bowl Capacity: 5 Liter approximately.

Standards, Safety and Training and warranty

- Should be FDA approved / CE marked
- At least 12 months from date of handover or installation and commissioning

BP apparatus with cuffs of Adult, Child, and infant sizes

BP apparatus – specification

05

1. Aneroid blood pressure measuring device, 1-tube-system
2. Shock protected in accordance with DIN EN ISO 81060-1
3. Protection against over-inflation
4. Scale \varnothing 60 mm

4

<p>06</p>	<p>BP apparatus (standing BP apparatus)</p> <p>Standing BP apparatus – specification</p> <ol style="list-style-type: none"> 1. aneroid blood pressure measuring device 2. stable 5-foot roller stand made of high-quality 3. stainless steel and sturdy plastic juncture for the feet 4. adjustable height: 85 to 130 cm 5. quiet Ø 50 mm double castors: 6. 2 locking castors, 2 safety castors and one antistatic castor 7. spiral hose with a range of 3 m 8. cuff included (arm circumference 27,5 cm- 36,5 cm, adult) 9. complies with DIN EN ISO 81060-1 standards 10. large, Ø 150 mm gauge with thin, red dial for exact measurement readings 11. numbered instrument dial reduces the risk of parallax 12. scaling: 0 – 300 mmHg 13. one-piece cuff without rubber bladder 14. plug-in adapter for quicker cuff exchange <p>Cuffs</p> <p>infant 13.8 – 21.5 cm</p> <p>child 20.5 – 28.5 cm</p> <p>adult 27.5 – 36.5 cm</p> <p>large adult 35.5 – 46.0 cm</p>	<p>7</p>
<p>07</p>	<p>BP cuff (adult)</p> <p>Cuff</p> <ol style="list-style-type: none"> 1. One-piece cuffs without bladder 2. Biocompatible in accordance with DIN EN ISO 10993 3. With 70 D Nylon fabric, easy cleaning 4. Should be extremely resilient: up to 50,000 uses 5. Cuff should be included with bp apparatus (arm circumference 27.5 cm- 36.5 cm, adult) <p>Cuffs</p> <p>adult 27.5 – 36.5 cm</p> <p>large adult 35.5 – 46.0 cm</p>	<p>3</p>

<p>08</p>	<p>BP cuff (infant)</p> <p>Cuff</p> <ol style="list-style-type: none"> 1. One-piece cuffs without bladder 2. Biocompatible in accordance with DIN EN ISO 10993 3. With 70 D Nylon fabric, easy cleaning 4. Should be extremely resilient: up to 50,000 uses 5. Cuff should be included with bp apparatus (arm circumference 27.5 cm- 36.5 cm, adult) <p>Cuffs</p> <p>infant 13.8 – 21.5 cm</p> <p>child 20.5 – 28.5 cm</p>	<p>6</p>
<p>09</p>	<p>Cardiac Monitor with Stand</p> <ol style="list-style-type: none"> 1. Easy to use, light weight and mobile unit suitable for adult and pediatric patients 2. Monitor should work on mains and built-in rechargeable internal batteries 3. Audible and visual alarms for; <ul style="list-style-type: none"> • Excessive cuff pressure • Cuff leakage • High/low pulse rate • Sensor off • Lead off • Sensor disconnected • Low battery, etc 4. Large LCD display-Graphical display of ECG, Pulse NIBP and SpO2 trends 5. Alphanumeric display of heart rate, SpO2 and pulse rate 6. User friendly touch screen to enter patient data and selecting operational functions. 7. Digital SpO2, high capacity against interface of ESU, motion and low infusion 8. Built in thermal printer 9. Parameters:- ECG (12 lead), Temperature, NIBP and SpO2 10. Mobile cart/stand to mount has to be supplied with equipment with a bucket to keep the accessories. 11. Spare adult and pediatric cuffs (4 sizes), reusable SpO2 probes (adult and ped), ECG cable with electrodes, temperature probes must be supplied. 12. Printer paper 10 rolls to be supplied 	<p>9</p>

	<p>Power Supply</p> <ul style="list-style-type: none"> • Power input to be 220-240VAC, 50Hz fitted 13Amp plug. <p>Standards, Safety and Training documents and warranty</p> <ul style="list-style-type: none"> • Should be FDA approved or CE marked • Application training must be provided to the users. • User/Technical/Maintenance manuals to be supplied in English • 12 months from date of installation and commissioning 	
<p>10</p>	<p>Critical care Bed</p> <p>Critical care bed – specification</p> <ol style="list-style-type: none"> 1. Four section perforated CRC top 2. Height adjustment through screw mechanism 3. Longitudinal tilt (trendelenburg & reverse trendelenburg) through screw mechanism 4. Backrest & knee rest adjustable through screw mechanism 5. Four swiveling castors of 12.5cm dia, two with brakes 6. Stainless steel I.V. rod adjustable with a provision to fix at four locations 7. Aluminum collapsible side rails at both sides 8. Pre-treated and epoxy powder coated finish 9. Knock down construction 10. Size: 2000 x 900 x 600/800mm 	<p>3</p>
<p>11</p>	<p>Digital thermometers with disposable covers</p> <p>Digital Thermometer with Covers – specification</p> <ol style="list-style-type: none"> 1. Should be suitable for oral and auxiliary use. 2. Should measure temperature in °C or °F 3. Clinical Measuring Range at least of 35-42 °C 4. Accuracy \pm 0.5°C / °F or better 5. Digital display 6. Measuring time, no greater than 20sec. 7. Should be battery operated. 8. Auto shut-off. 9. Water and disinfectant resistant. 10. Shall be CE marked and/or FDA approved. 	<p>7</p>

	11. Should include 1000 disposable covers/sleeves.	
12	Dressing Set <ol style="list-style-type: none"> 1. Dressing Tray stainless Steel Rectangular 10 X 8 Inches (1) 2. Non toothed or toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (1) 3. Artery Forceps, straight, 130 mm (5 1/8") non-sterile, reusable (1) 4. Gallipot 77mm (1) 	7
13	Dressing tray Dressing Tray stainless Steel Rectangular 10 X 8 Inches	10
14	Dressing trolley Dressing trolley – specification <ol style="list-style-type: none"> 1. Tubular frame powder coated with two heavy stainless-steel shelves 2. Mounted on four castors of 10cm dia 3. Protective railing on four sides on both shelves 4. Size: 760 x 510 x 900mm 	10
15	Electrocardiography Machine (3 channel) Electrocardiography Machine (3 channel) – specification <ol style="list-style-type: none"> 1. Standards IEC 60601-2-25, IEC 60601-2-51, EC11 2. Measurement mode Auto, manual, rhythm 3. ECG standard AHA, IEC 4. ECG size 2.5 mm/mV 5. Sweep speed 5 mm/s 6. Baseline drift removal (BDR) 0.56 Hz 7. Muscle artifact filter 20/35 Hz 8. Frequency response 0.05 Hz-150 Hz 9. Common mode rejection ratio 110 dB 10. AC filter 50/60 Hz 11. Sampling rate 1000 samples/s (A/D) 12. Input signal range +-10 mV (peak-to-peak value) 13. DC offset voltage range 600 mV 14. Defibrillation proof 5000 V, 360 J 15. Calibration signal 1 mV 16. Channel crosstalk 0.5mm at normal sensitivity 	10
16	Emergency Trolley	13

	<p>Emergency trolley – specification</p> <ol style="list-style-type: none"> 1. Made of ABS plastic 2. Mounted on 12.5cm dia. castors 3. Push handle for easy movement 4. With 5 Drawers (3 small, 1 medium and 1 big drawer having dividers in each section) 5. With a dustbin and I.V. rod 6. Size: 650 x 400 x 1150mm 	
17	<p>Examination couch</p> <p>Examination couch – specification</p> <ol style="list-style-type: none"> 1. Frame work made of rectangle & square tube 2. Fully adjustable back rest by hand lever 3. Top is upholstered and covered with washable plastic material 4. Mounted on rubber shoes 5. Size: 1800 x 550 x 800mm 	2
18	<p>Fridge - Mini for storing drugs</p> <ol style="list-style-type: none"> 1. Medical refrigerator used for the storage of vaccines, drugs, etc. 2. The refrigerator should have the following features: <ol style="list-style-type: none"> a. Adjustable stainless steel drawer b. Two or three adjustable shelves. c. Illuminated interior, incandescent lighting d. Automatic condensate evaporator e. Temperature should be set to operate at 2° C to 8° C f. Integrated temperature monitoring system g. Stainless steel interior h. Four heavy-duty swiveling casters, with brakes i. Dished bottom to contain spills 3. The monitor shall display chamber temperature to the tenth degree centigrade 4. Audible and LED alarm should have adjustable High/Low temperature and door open. 5. The refrigerator shall have a security locking system: Positive door latches with key lock security 6. The refrigerator should have an audible and visual alarm to alert staff to power loss and temperature deviation 	1

	<p>7. The refrigerators shall have provision for contacts to interface with the Building Management System (BMS)</p> <p>8. Approximate size in Liters is:</p> <p>9. The refrigerator shall have a magnetic door gasket for positive seal for Refrigeration System</p> <p>10. Hermetically sealed, air-cooled compressor.</p> <p>11. Non-CFC refrigerant.</p> <p>12. Forced air circulation maintains chamber uniformity of +/-1°C and provides quick recovery.</p> <p>13. Interior fans shut down when door is opened.</p> <p>14. Automatic condensate evaporation system.</p> <p>15. Rapid temperature recovery following door opening</p> <p>Power Supply:</p> <ul style="list-style-type: none"> • A 220-240AC, 50Hz mono-phase electrical source with a 13amp, plug type G. <p>Standards/Certification and Safety trainings and warranty</p> <ul style="list-style-type: none"> • Should be a CE / FDA Approved product and should have ISO standards. • The unit and the accessories must be supplied with 1 year of warranty. • End users should be trained by the company application personnel. 	
19	<p>General instrument Set</p> <ol style="list-style-type: none"> 1. Dressing Tray stainless Steel Rectangular 18 X 12 Inches (1) 2. Gallipot 95mm (1) 3. Dissecting Toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (1) 4. Dissecting Non toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (1) 5. Artery Forceps, straight, 130 mm (5 1/8") non-sterile, reusable (1) 6. Mosquito Forceps Stainless Steel 4 inch curved non-sterile, reusable (1) 7. Mosquito Forceps Stainless Steel 4 inch straight non-sterile, reusable (1) 	5
20	<p>Glucometer</p> <p>Glucometer – specification</p> <ol style="list-style-type: none"> 1. GOLD Electrode 2. Easy and Convenient Test (Sip-in Technology) 	2

	<ol style="list-style-type: none"> 3. 4 μl / 11 sec 4. Glucose Oxidase 5. User-friendly 6. Battery Type: Two 3-volt Lithium Batteries (coin cell type CR2032) 7. ISO, CE and FDA510K certified 8. Medical classification: Class II (IVDD)/ or B (IVDR) 9. Accurate Results 10. Memory store: 100 Results 11. Result Range: 20 ~ 600 mg/dL 	
21	<p>Glucometer with Reagent Strips and Single-Use Lancets</p> <ol style="list-style-type: none"> 1. Should be a portable and hand held meter. 2. Should require no routine maintenance 3. Should have reading range/linearity from 20 to 600 mg/dl 4. Should have a maximum reading time of less than 10 seconds 5. Should use electrochemical technology 6. Should use a minimum blood sample less than 1.5μl 7. Should have a LCD display 8. Should have measuring unit in mg/dl. 9. Should have wide operating temperature 10. Should have a minimum memory of 10 11. Should have easy code entry technique 12. Battery should be replaceable 13. Should have facility to ensure accuracy of measurements. <p style="text-align: center;"><u>GLUCOSE STRIPS GLUCOSE STRIPS</u></p> <ol style="list-style-type: none"> 1. Should be able to use capillary blood samples. 2. Should have a minimum 4 months shelf life after opening the strip vial. 3. All strips should have at least one-year expiry date from the date of supply. 4. At least 50 strips should be supplied along with the equipment. 5. Strips should be available in the local market. <p>Standards, Safety and Training and docs</p> <ol style="list-style-type: none"> 1.1 Should be FDA approved /CE marked 1.2 The unit and the accessories must be supplied with one year of warranty starting from the date of installation. 1.3 Application training must be provided to the users. 1.4 User/Technical/Maintenance manuals to be supplied in English. 	7

22	<p>I & D Tray</p> <ol style="list-style-type: none"> 1. Mosquito Forceps Stainless Steel 4 inch curved non-sterile, reusable (1) 2. Mosquito Forceps Stainless Steel 4 inch straight non-sterile, reusable (1) 3. Gallipot 77mm (1) 4. Toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (1) 5. Non toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (1) 6. Scalpel Handle, 125 mm (5"), straight, No. 3, reusable (1) 7. Scalpel Handle, 135 mm (5 1/4"), straight, No. 4, reusable (1) 	8
23	<p>Ambubag Valve Masks (BVM) Pediatric; Masks for Neonate, Infant, and Child, (with Operable Pressure Relief Valves and Transparent Masks, with Oxygen Reservoir/Accumulator)</p> <p>Suction Apparatus_– specification</p> <ul style="list-style-type: none"> • It shall be used to remove/evacuate soft tissue and fluids from various parts of the body. • Vacuum pressure from 0 to 1 bar at least, with an easy-to-read negative pressure gauge indicating actual pressure. • Should have oil-less piston which allows for no lubrication and no maintenance • Should have autoclavable collection jar and suction tube • Low noise operation • Incorporated bacteria filter <p>Power Supply</p> <ul style="list-style-type: none"> • Power input to be 220-240VAC, 50Hz fitted 13Amp plug. • Should have DC Input • Should have battery backup with which machine can be ran for at least 1 Hr <p>Standards, Safety</p> <p>Should be FDA/CE marked</p>	3
24	<p>Infusion pump with IV Stand</p> <ul style="list-style-type: none"> • Single Channel volumetric programmable infusion equipment. • LCD/LED display. • Equipment provided with at least continuous and intermittent infusion modes. • Clearly visible visual alarms. • Acoustic alarms should be not less than 45db • Bubble traps capability. • Air bubble detector with single and cumulative functions. 	9

	<ul style="list-style-type: none">• Line clamping device.• Mobile IV stand supporting infusion pump.• Adjustable occlusion sensitivity.• Alarm protection at least in the following cases.<ul style="list-style-type: none">a. power breakdown;b. low battery;c. air in line;d. line occlusion;e. end of infusion;f. door opened;g. Infusion errors and/or equipment malfunction • Infusion flow rate range (comprehending standard and bolus modes) not smaller than 0.1 to 999 ml/h.• Volumetric flow rate accuracy not higher than +/- 4%• Keep Vein Open (KVO) maximum flow rate value in the range between 20 ml/h and 50 ml/h• At least RS232 and/or USB interface for data transmission• IPX4 splashes waterproof equipment.• Easy to clean equipment.• Should be compatible with widely used infusion tubing sets.• IV stand with lockable caster wheels should be provided with machine. <p>2. Power Supply:</p> <ul style="list-style-type: none">• A 220-240AC, 50Hz mono-phase electrical source with a 13amp, plug type G.• Should have a battery, capable of usage for at least 3 hours.• Alarm protection at least in the following cases:<ul style="list-style-type: none">A) Power BreakdownB) Low battery <p>3. Standards/Certification and Safety:</p> <ul style="list-style-type: none">• Should be a CE or FDA Approved product and should have ISO standards. <p>4. Trainings and Warranty:</p> <ul style="list-style-type: none">• The unit and the accessories must be supplied with 1 years of warranty.	
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	<ul style="list-style-type: none"> • End users should be trained by the company application personnel. 	
25	<p>IV stands</p> <ul style="list-style-type: none"> • Stainless steel IV rod with two hooks • Stand mounted on stainless steel base frame. • Stand mounted on five swivel castors. • Provision of backlight knob to manually adjust the height. • Minimum: - 1200 and maximum 2025mm • Manually adjusted height through side knob. • Pretreated and epoxy powders coated finishing. • IV rod's tube made with S.S. tube of 30mm. • Framework constructed with stainless steel material. • Should be made of stainless steel that is light weight and portable • Slow descending stainless telescoping top pole, with at least 2 to 3 hook tops • Approximate Dimensions <ul style="list-style-type: none"> ○ Maximum height: 99" fully extended ○ Minimum height: 68" compressed • Welded steel base pole with epoxy finish with minimum 5 legs • The wheels should be of type rubber castors with ball bearing <p>Standards/Certification. Safety warranty</p> <p>Should be CE or FDA approved product and should have ISO standards</p> <p>12 months from the date of handing over or installation and commissioning</p>	10
26	<p>Kidney Tray (Large)</p> <p>Kidney Tray, 275 mm (10 3/4"), stainless steel</p>	6
27	<p>Kidney Tray (Medium)</p> <p>Kidney Tray, 250 mm (10"), stainless steel</p>	6
28	<p>Knee hammer</p> <ol style="list-style-type: none"> 1. Knee Hammer with Pin & Brush for testing deep tendon reflexes used by doctors. 2. Reflex hammers can also be used for chest percussion. 3. Pointed Tip with Pin and brush. <ol style="list-style-type: none"> 1. Able to test deep tendon reflexes 2. A rubber component should be attached to a flat metallic handle 3. Should have T shape a, double point solid rubber with reflex point and brush 	3

	<p>4. Brass nickel plated solid handle with brush and pin end</p> <p>5. Designed to perform all reflex tests with less effort and greater patient comfort by combining the functions and features.</p>	
29	<p>Laryngoscope set with Laryngoscope Blades, Sizes: 0-4, Straight (Miller), and 1-4, Curved (with Extra Batteries and Bulb)</p> <p>Laryngoscope – specification</p> <ol style="list-style-type: none"> 1. Laryngoscope set adults and pediatrics, conventional 2. 1 handle + 7 blades 3. rechargeable in charging station with rechargeable battery 	7
30	<p>Light, observation/examination, mobile</p> <p>Examination Light/ Mobile – specification</p> <ol style="list-style-type: none"> 1. Should be LED based examination light with rolling stand 2. Should have true tissue color rendition and pinpoint accuracy 3. Control panel should have ON/OFF button and illumination control 4. Highly flexible LED light which is easy to maneuver 5. Illumination at a distance of 50cm > 20000 Lux or better 6. Average LED life should be more than 35000 hrs 7. Power dual voltage: 110V or 240V, 60/50HZ 	12
31	<p>Magill Forceps, Adult and Pediatric</p> <p>High quality stainless steel</p> <p>Round hole tip with serrations</p> <p>Length – Adult 250mm – Child 200mm</p>	9
32		
33	<p>Minor set</p> <ol style="list-style-type: none"> 1. Dressing Tray stainless Steel Rectangular 10 X 8 Inches (1) 2. Gallipot 77mm (1) 3. Dissecting Toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (2) 4. Dissecting Non toothed Forceps, straight, 145 mm (5 3/4") non-sterile, reusable (2) 5. Artery Forceps, straight, 130 mm (5 1/8") non-sterile, reusable (3) 6. Artery Forceps, curved, 130 mm (5 1/8") non-sterile, reusable (3) 7. Mosquito Forceps Stainless Steel 4 inch curved non-sterile, reusable (3) 8. Mosquito Forceps Stainless Steel 4 inch straight non-sterile, reusable (3) 9. Allies (4) 	10

	<ul style="list-style-type: none"> 10. Curved fine scissor (2) 11. Straight fine scissor (2) 12. Small Retractor (2) 13. Sponge holder 9" (1) 14. Sponge holder 7" (1) 15. Kidney tray (s) (1) 	
34	<p>Narrow Tray</p> <p>Stainless Steel Instrument Tray with Lid 8" x 6"</p>	7
35	<p>Nebulizer</p> <p>Nebulizer – specification</p> <ul style="list-style-type: none"> 1. It should be a compressor type nebulizer 2. Should be low in medication residue and less in medication waste 3. Should have a check valve to protect the device against contamination due to backward inhalation. 4. Should be low in noise 5. Should be safe and durable to use. 6. Easy washable and disinfected accessories 7. Should be supplied with nebulization accessory kit with mask for adult and pediatric 8. Should works on 200-240Vac/50Hz. 	6
36	<p>Ophthalmoscope set</p> <p>Ophthalmoscope – specification</p> <ul style="list-style-type: none"> 1. Ophthalmoscope set composed of diagnostic head mounted on a handle. 2. Range of lenses not smaller than -35D to +40D, adjustable in steps 3. Should eliminate corneal reflex 4. Should be able to magnify at least five times. 5. Available apertures at a minimum: small, large and semi-circle, fixation star. 6. Should have Red-free filter 7. Concentrated white light for perfect illumination and a brilliant image 8. Handle with on/off switch. 9. Illumination should be by a LED light source with continuous brightness control 	10
37	<p>POP Cutting Scissors</p>	9

1: Technical Data:

Frequency of swing	12500'/min
Input power	125W
Non-load Noise	84dB
Power Source	Electricity
Voltage	220V/60HZ
Weight	1.5 Kg
Length	250mm
Operating Temperature	5-40°C
Humidity	≤80%

2: Standard configuration:

Configuration:
one set saw 220V/50Hz & 110V/60Hz
one wrench to load & unload saw blades
one small round blade
one big round blade
one sector shaped blade
one instruction manual
one Aluminum case

Portable Defibrillator with Defib pads, paddles, ECG leads of Adult and Pediatric sizes

Portable Defibrillator – specification

Operational Requirements:

- Should be compact, Lightweight, easy to use, Bi-Phasic Defibrillator with Manual and AED. (With easy 1-2-3 operation).
- Should monitor ECG and display them.
- Should be able to print the ECG on thermal papers.
- Can be operated from mains as well as battery.

Technical Specifications:

- Should be a Biphasic Defibrillator monitor with recorder
- Should have capability to deliver shocks from 2 Joules to 200 Joules or better.
- Should monitor ECG through paddles, pads and monitoring electrodes and defibrillate through pads and paddles.
- Should have a built in 50 mm thermal printer.
- Should have charging time of less than 10 seconds for maximum energy.
- Should have High resolution more than 7-inch Color display for viewing monitoring.
- Both Adult and pediatric paddles should be available.
- Should have a battery capable of usage for at least 5 hours of monitoring.
- Should be capable of printing Reports on Event summary, configuration, self-test, battery capacity etc.
- Should have facility for self-test/check before usage and set up function.

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8

	<p>System configuration accessories, spares and consumables:</p> <ul style="list-style-type: none"> • Defibrillator with AED and External Pacemaker • Built in Adult + pediatric External Paddles • ECG Cable • Paper Rolls • Adult SpO2 reusable Sensor • AED Multifunction Pads for Adults • AED Multifunction Pads for pediatrics <p>Power Supply:</p> <ul style="list-style-type: none"> • A 220-240AC, 50Hz mono-phase electrical source with a 13amp, • Should have a battery, capable of usage for at least three hours. <p>Standards/Certification and Safety:</p> <ul style="list-style-type: none"> • Should be a CE / FDA Approved product and should have ISO standards. End users should be trained by the company application personnel. 	
39	<p>Portable Ventilator</p> <p style="text-align: center;">Technical Specification for Equipment</p> <p>The Portable ventilator should be compatible with adult, Neonatal, Pediatric Patients</p> <p>Equipment: Portable Ventilator</p> <p>I. Ventilation modes:</p> <ol style="list-style-type: none"> 1. Volume Controlled mode. 2. Pressure Controlled mode 3. Asst. Controlled mode. 4. SIMV(VC/PC) 5. Pressure Support 6. CPAP and PEEP 7. Shall have NIV in all modes 8. BIPAP/Bi-level/ASV/Equivalent 9. Facility for integrated high flow oxygen therapy (desirable) <p>II. Parameters:</p> <ol style="list-style-type: none"> 1. Tidal volume - (20 – 1500) ml 	6

<p>2. Respiratory rate: 0-80 BPM</p> <p>3. Inspiratory Pressure - 4 – 50 cm H₂O.</p> <p>4. Oxygen Concentration - 21 –100 %</p> <p>5. Audible alarms for low pressure, Apnea, high-pressure, High respiratory rate, Circuit disconnection.</p> <p>6. Works independent of gas cylinder pressure/compressor</p> <p>7. Works with both high pressure and low pressure O₂.</p> <p>8. Peak inspiratory flow rate at least 180 liters/minute</p> <p>9. Should be able to adjust FIO₂ on the Ventilator</p> <p>10. Should have screen size 8 inch</p> <p>III. Standard Accessories (with each machine):</p> <ol style="list-style-type: none"> 1) Patient circuit (Adult) - 5 complete set, Reusable. 2) O₂ Pressure Regulator - 1 No. 3) Hose for O₂ connection - 5 mts 4) Test lung – 1(adult) No. 5) Test lung – 1(neonatal) No. 6) NIV Mask – 5 No (Adult, Reusable) 7) NIV Mask – 5 No (pediatric, Reusable) 8) HME filter(adult) – 50Nos 9) HME filter(pediatric) – 50Nos 10) Flow sensor- 2Nos (adult) Reusable 11) Flow sensor- 2Nos (Neonatal) Reusable 12) Patient circuit (Neonatal) - 5 complete set, Reusable. 13) Patient circuit (pediatrics) - 5 complete set, Reusable. 14) Patient circuit disposable of both adults, neonatal and pediatric should be supplied -10Nos each <p>IV. Power Source 1. 220/240 V Ac 50 Hz supply. Internal battery (Li Ion) with (5-8) hours minimum operating time (hot swappable allowed)</p> <p>V. Mounting</p> <ol style="list-style-type: none"> 1. Provision for mounting on trolley & bedrail with necessary clamps. Should have carry handle / provisions for transport easily. <p>VI. Should be FDA approved and CE Marked.</p> <p>VII. Should have trigger setting facility for pressure/flow.</p> <p>VIII. Should be electrically driven to prevent wastage of gases and to avoid dry run.</p>	
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	<p>X. Monitoring Parameters the Ventilator shall be able to monitor VTE, VTi, RR, FIO2, MVE, Pif, I: E Ratio, graphs- V-T/P-T/F-T (at least one)</p> <p>XI. Shall have weight <10kg</p> <p>Power Supply</p> <ul style="list-style-type: none"> Battery Back UP for more than 5-8 hours, DC connectivity. AC charger of 220V 50Hz to be included <p>Standards, Safety and Training</p> <ul style="list-style-type: none"> Should be FDA approved/ CE marked Application training must be provided to the ICU Nursing staff Manufacturer standard biomedical technical must be given to MoH Biomedical Engineers within one year of installation. <p>Documentation</p> <ul style="list-style-type: none"> User/Technical/Maintenance manuals to be supplied in English. List of important spare parts and accessories with their part number and costing. <p>Warranty:</p> <ul style="list-style-type: none"> 24 months from date of installation and commissioning. 	
40		
41	<p>Pulse Oximeters</p> <p>Equipment: Finger Pulse Oximeter</p> <p>1. Specification:</p> <ol style="list-style-type: none"> Continuous non-invasive monitoring of functional oxygen saturation (SpO2) Should be light weight for easy transport. Measurement Range: <ol style="list-style-type: none"> SpO2 Saturation Range 70% to 100% Accuracy (%SpO2) ±2% at 80%~100%, ±3% at 70%~79% 	1


	<ul style="list-style-type: none"> c. Pulse Rate Range 30 to 250 beats per minute (bpm) d. Accuracy ± 2 bpm at 30~250 bpm e. Should display SpO₂, HR and Battery status on the screen <p>4. Safety/Alarms</p> <ul style="list-style-type: none"> a. Audible and visual alarms for high/low pulse rate and sensor off. <p>5. Battery operated (Alkaline batteries).</p> <p>2. Standards, Safety, Training and warranty</p> <ul style="list-style-type: none"> 1. Should be a CE / FDA Approved product and should comply with ISO standards 2. Warranty: 12 months from the date of handing over or installation and commissioning 	
42		
43		
44	<p>Stethoscopes (Adult)</p> <p>Stethoscope – specification</p> <ul style="list-style-type: none"> 1. Bell and diaphragm type dual sided chestpiece 2. Should have tight and soft sealing eartips 3. Diaphragm should be tunable 4. Chest piece material: stainless steel 5. Should have active noise cancellation 	8
45	Stethoscope (adult / paed)	1
46	<p>Stethoscope (Child)</p> <p>Equipment: Stethoscope, Pediatric</p> <p>1. Characteristics</p> <ul style="list-style-type: none"> 1. Two-sided models with traditional bell/diaphragm chest pieces are designed, sized and acoustically precise for children and infants. <p>2. Features;</p> <ul style="list-style-type: none"> i. One-inch traditional bell (pediatric) and bell (infant) combined with a floating diaphragm ii. Solid stainless steel chest piece iii. Comfortably angled, anatomically correct headset 	8

	<p style="text-align: center;">iv. Single-lumen tubing available</p> <p>2. Standards, Safety and warranty</p> <ol style="list-style-type: none"> 1. Should be FDA approved/CE marked 2. Warranty of 12 months from date of handover and commissioning 	
47		
48	<p>Suction machine</p> <p>Equipment: Suction machine</p> <p>Specification:</p> <ol style="list-style-type: none"> 1. Simple operation, Easy to clean and maintenance free. 2. Pumps should be oil less, quiet and powerful. 3. Overflow safety device 4. Suction jar of 1 or 2 litres with air tight lids. 5. Suction jar and lid should be reusable and autoclavable. 6. Anti-bacterial filter. 7. Vacuum regulator and Vacuum indicator dial. 8. Vacuum dial: 0-1 bar. 9. Suction regulating valve and Automatic overflow valve. 10. Suction rate: 0- 40 litres/ minute. 11. Trolley mounted with wheel castors. <p>Should include the following accessories</p> <ul style="list-style-type: none"> - Bottles 2 Nos - Lids 2 Nos - Rubber seals 2Nos - Bacterial filter-10Nos <p><i>All necessary accessories for the start and functioning of the equipment has to be supplied</i></p> <p>Power Supply:</p> <p>Line voltage 220 — 240 V and fitted with a 13amp UK plug type G</p>	12

	<p>Standards, Safety and Training: Should be a CE / FDA Approved product and should have ISO standards</p> <p>Warranty: 12 months from the date of handing over or installation and commissioning</p> <p><i>User/Technical/Maintenance manuals to be supplied in English and certificate of calibration and inspection.</i></p> <p><i>List of important spare parts and accessories with their part number and costing has to be provided.</i></p>	
49	<p>Syringe Pump with IV stand</p> <p>Equipment: SYRINGE PUMP WITH IV STAND</p> <p>Technical Specification:</p> <ol style="list-style-type: none"> 1. Microprocessor controlled with digital LCD alphanumeric display of parameters and Alarms 2. Variable rate ranging from 0.1 to 500 mL/hr or better, with 0.1 mL/hr increments 3. 3 % accuracy or better 4. Variable volume-to-be-infused from 1 to 1,000 mL or similar 5. Digitally displayed parameters to include: <ol style="list-style-type: none"> 5.1. Infusion rate 5.2. Battery / AC operation 5.3. Running indicator 5.4. Alarming condition when active, with indication of alarm type or code 5.5. Back pressure monitor / indicator 6. Capability to accept different syringe types and sizes with automatic syringe detection and identification 7. Syringe compatibility and auto detection shall include but not be limited to all sizes of the following (1 to 60 mL): <ol style="list-style-type: none"> 7.1. BD 7.2. Terumo 	8

	<ul style="list-style-type: none">7.3. Monoject7.4. Braun7.5. Fresenius8. Variable bolus rate<ul style="list-style-type: none">8.1. Specify maximum flow rate8.2. Bolus infused volume indicator during bolus activation8.3. Protected access9. Audiovisual alarms shall include but not be limited to the following:<ul style="list-style-type: none">9.1. Syringe installation and integrity (detection)9.2. Line disconnection (sudden drop in back pressure)9.3. Occlusion pressure pre-alarm9.4. Occlusion pressure9.5. Near end of perfusion alarm9.6. End of perfusion9.7. Volume limit pre-alarm9.8. Volume limit9.9. KVO (1 ml/hr; if other, specify)9.10. Low battery pre-alarm9.11. Discharged battery 9.12. Internal malfunction10. Data log capability and data port for data transmission, display and printing. Any required software for such function shall be included.11. Logged data to include:<ul style="list-style-type: none">11.1. Settings11.2. Alarms11.3. Errors12. Safety features shall include but not be limited to:<ul style="list-style-type: none">12.1. Self-test at start-up12.2. Nurse call interfacing capability12.3. Splash proof design12.4. Auto priming12.5. Adjustable alarm volume. No permanent silencing shall be possible.12.6. Keypad lock	
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	<p>12.7. Impossibility to improperly install infusion set</p> <p>12.8. Free flow prevention system</p> <p>12.9. Last parameter setting retention</p> <p>13. IV stand mounting accessory shall be included</p> <p>14. Battery autonomy of 3 hrs or more when fully charged. Specify:</p> <p>14.1. Specify battery type and characteristics (voltage and current capacity)</p> <p>14.2. Autonomy at 10 mL/hr</p> <p>14.3. Recharging time from depleted to 90%</p> <p>The IV pole/stand shall have the following features:</p> <ul style="list-style-type: none"> • Constructed in 18/10 stainless steel • The IV pole shall have at minimum four Ram's Horn style hooks. • The IV pole should be height adjustable by means of a telescoping upright rod. • The height adjustment shall be secured in place (i.e., with a twist lock, knob handle, foot pedal). • Casters • The IV pole should have a minimum of four 75 mm (3-inch) diameter casters, two with brakes • The casters should be conductive and should swivel. • Maneuvering the unit should require minimal physical effort <p>Power Supply</p> <ul style="list-style-type: none"> • Power input to be 220-240VAC, 50Hz fitted 13Amp plug, BT type <p>Standards, Safety and Training</p> <ul style="list-style-type: none"> • Should be FDA approved and/ CE marked • The unit and the accessories must be supplied with one year of warranty starting from the date of installation. • Application training must be provided to the users. • Manufacturer standard biomedical technical must be given to MoH Biomedical Engineers within one year of installation. <p>Documentation</p> <ul style="list-style-type: none"> • User/Technical/Maintenance manuals to be supplied in English. • List of important spares, accessories with their part numbers must be provided. 	
50	Torch led light	1

		
51	<p>Urinal</p> <p>Capacity: 1000ml</p> <p>Made of polyethylene material</p>	8
52	<p>Vitals monitor with Stand</p> <p>Vital sign monitor with stand – specification</p> <ul style="list-style-type: none"> • Fast and accurate readings with LCD display • Patient: Adult and pediatric • Inbuilt rechargeable battery with minimum 4 Hrs. operation time. • Alarm ON/OFF: controlled by general switch and parameter switch (two levels) • Automatic shutdown for power saving • User friendly, mobile and shock resistant. • 4 Parameters: NIBP, SPO2, Pulse rate and Temperature. • Should include Mobile stand with lockable castor wheels. <p>SpO2</p> <ul style="list-style-type: none"> • Manual or continuous monitoring • Waveform and numerical display • Range: 70-100% • Accuracy (%SpO2) $\pm 2\%$ at 100%~80%, $\pm 3\%$ at 80%~70% • Pulse Rate Range: 0~254 bpm • Pulse Rate Accuracy: 1 bpm • *Alarm limits range: • SpO2 upper limits : 95~100% lower limits: 85~96% • Pulse Rate: keep up with the heart rate • Should include SpO2 cable with sensor probe. 	7

Temperature

- forehead/Ear thermometer
- Range: 20 – 50°C
- Accuracy: +/- 2 °C
- Measurement Unit: °C/°F selectable
- Measure range: 0~50°C
- Alarm limits range: Upper limits 36~45°C Lower limits 34~38°C

NIBP

- Measure Method: Automatic oscillometric
- BP accuracy: +/- 3 mmHg
- Should include 3 sizes of NIBP cuffs; Adult (L&XL) and pediatric
- Measurement mode: Manual, Auto, STAT
- Adult / pediatric measurement range: • Systolic 30-255 mmHg
- Diastolic 15-220 mmHg
- Mean 20-235 mmHg

Power Supply

o Power input to be 220-240VAC, 50Hz fitted 13Amp plug.

Standards, Safety and Training

- Should be FDA approved/CE marked
- Application training must be provided to the users.

Documentation

- User/Technical/Maintenance manuals to be supplied in English.
- List of important spare parts and accessories with their part number and costing.

Warranty:

- At least 12 months from date of installation

Equipment: MONITOR, Vital Signs, on mobile stand

A compact type of vital signs monitors with the following specifications:

1. All vital signs monitors shall have a common user interface for ease of operation and maintenance.
2. The monitor shall be used for adult, pediatric and neonatal patients.

	<p>3. The monitor shall incorporate the fastest processor and the latest software version at time of delivery.</p> <p>4. Display specifications:</p> <p>4.1. The monitor shall have an 8" color LCD display.</p> <p>4.2. The monitor shall be capable of displaying at least 3 simultaneous real-time waveforms.</p> <p>5. It shall be HL7 compatible and support patient trends transfer to the Hospital Information System (HIS).</p> <p>6. The monitor shall be capable of monitoring the followings parameters:</p> <p>6.1. Pulse Rate</p> <p>6.2. NIBP</p> <p>6.3. Temperature</p> <p>6.4. SpO2</p> <p>7. NIBP:</p> <p>7.1. Manual, automatic measurements by intervals or non-stop measurements</p> <p>7.2. Adult / pediatric measurement range:</p> <p>7.2.1. Systolic 30-255 mmHg</p> <p>7.2.2. Diastolic 15-220 mmHg</p> <p>7.2.3. Mean 20-235 mmHg</p> <p>7.3. Neonatal measurement range:</p> <p>7.3.1. Systolic 30-135 mmHg</p> <p>7.3.2. Diastolic 15-110 mmHg</p> <p>7.3.3. Mean 20-125 mmHg</p> <p>7.4. BP accuracy: +/- 5mmHg</p> <p>7.5. Pulse Rate accuracy: +/- 2%</p> <p>8. SpO2</p> <p>8.1. Manual or continuous monitoring</p> <p>8.2. Waveform or numerical display</p> <p>8.3. Range: 0-100%</p> <p>9. Temperature</p> <p>9.1. Continuous mode</p> <p>9.2. Probes: esophageal, rectal or skin</p> <p>9.3. Range: 25 – 45°C 9.4. Accuracy: +/- 1°C</p> <p>10. The monitor shall be supplied with a rolling stand with locking casters from the same manufacturer. The stand shall incorporate a handle and an accessory basket for storage of NIBP cuff and other accessories.</p> <p>11. The monitor shall integrate a thermal recorder.</p> <p>12. All accessories (for adult, pediatric and neonatal patients) necessary to monitor the above listed parameters shall be supplied with the monitor in addition to 5 rolls of recorder paper.</p> <p>13. The monitor shall include a lithium ion battery:</p> <p>13.1. Operating time: 4 hours with NIBP every 15 minutes</p>	
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<p>13.2. Battery status indicator on screen</p> <p>14. Alarms</p> <p>14.1. Each monitor shall be equipped with audible and visual alarms, patient status and monitor status alarms.</p> <p>14.2. The monitor must include a reset function which will silence alarms and have a built-in reminder for the user if patient status continues to exceed alarm limits.</p> <p>14.3. The alarm limits shall be programmable.</p> <p>14.4. The monitor shall include different programmable (high, medium and low) alarm levels with distinctive tones and colors for each measured parameter.</p> <p>15. The monitor shall be capable of recording up to 96 hours of graphical and tabular trends.</p> <p>Power Supply</p> <ul style="list-style-type: none">• Power input to be 220-240VAC, 50Hz fitted 13Amp plug. <p>Standards, Safety and Training</p> <ul style="list-style-type: none">• Should be FDA approved and CE marked• Application training must be provided to the users.• Manufacturer standard biomedical technical must be given to MoH Biomedical Engineers within one year of installation. <p>Documentation</p> <ul style="list-style-type: none">• User/Technical/Maintenance manuals to be supplied in English.• List of important spare parts and accessories with their part number and costing. <p>Warranty:</p> <ul style="list-style-type: none">• At least 12 months from date of installation and commissioni	
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