	Technical specifications for Patient Monitor with upgradation capabilities
1	The assignment should be canable of monitoring all patient age groups
2	chauld have integrated medical grade touch screen of at least 12 With display
	of 10 or more waveforms. Also, should have audio, visual and graded alarming
	system. Should have 24 hours graphical and numerical trend with split screen facility of
3	all parameters with at least 15 critical alarms summary.
	Should have inbuilt battery backup of at least 120 minutes.
4	Monitor should have capability to monitor following features- Should have 3/5
5	lead ECG with ST segment analysis, Respiration, NIBP, SPO2, Dual Temperature,
	Invasive Blood Pressure (Upgradabe), EtCO2 (Upgradabe), BIS (Upgradable),
	Invasive Blood Pressure (Opgradabe), EtCO2 (Opgradabe)
	Cardiac Output (Upgradable).
6	Should measure and display value of ST segment, also should have arrhythmia
	teresting of at least 22 classifications.
7	Must display perfusion index (PI%) from SpO2 as an indication of pulse strength
	at the sensor site. The SpO2 probes must be durable.
8	Should measure and display Pulse Pressure Variation on main screen.
9	Manitor should have cabability of upgrading to light weight main-stream?
	atroam at CO2 module with sampling rate minimum /0 mi/m or less.
	Should be capable to monitor EtCO2 for both intubated and non-intubated
	The street of th
10	Should have drug exygenation, ventilation and hemodynamics calculation.
11	Monitor should be capability of upgrading to advance modules like BIS &
4.4	Cardias Output Module
12	Monitor should have capability of upgrading to interface with devices like
12	Ventilators, anesthesia machine, for display of said device's parameters on
	and a standard and a
13	Monitor should have HL7 output to interface with hospital information system
14	Central monitoring system Specification (Field Upgradable)
	Intensitor should be compatible with central monitoring system with 21
	History DC & printer Central monitoring systems must have storaged review
	Is all the of nationts vital parameters for up to 150 hours of trend data for all
	parameters in tabular and graphic formats, Should be able to store up to 1,200
	NIBP measurements and 200 alarm events. Should be provided as complete it
	all terms including software hardware & installation.
15	Monitor & CNS should be from same OEM.
16	Each monitor should be supplied with following accessories -
17	ECG connection cord/cable - 01 No.
18	Electrode lead - 5 Lead- 01 No.
19	SpO2 Connection Cord / cable - 02 No.
20	Adult/Pediatric Sensor - 02 No.
21	NIBP Hose Cable - 01 No.
22	Cuff size - small - 01 No.
77	Cuff size - medium - 04 No.
23	Cutt size - megium - 04 No.

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25	Temperature probe skin - 01 No.
26	Good quality wall mount should be supplied for patient monitor to be provided
27	Central display unit should be kept either on table or mounted on a wall.
28	Following mentioned advance module must be field Upgradable -
а	BIS module with accessories
b	Cardiac Output (Invasive or non-invasive)
С	Invasive Blood Pressure
d	EtCO2
29	Monitor and CNS should be European CE or USFDA approved.
30	Compliance statements should be supported with brochures and technical data
	sheet. It required physical demonstration will be asked.
31	Bidder should quote optional prices for Integrating various devices for
	centralised data storage and remote viewing on various communication devices
	through IP addresses. Specifications as below:
32	Specifications for Data Integration and web based remote view (Should be
	Field upgradable & can be procured whenever needed)
а	The Software should be able to integrate to ICU Ventilator and various
	equipment of ICU like Patient monitor, ABGs, Syrings pump etc (Cost per
	equipment to integrate should be quoted as optional)
b	Software should display equipment data of all the connected medical
	equipmets of ICU beds on one Screen and should also be able to view remotely
	as standard feature
С	Should display real time parameter, Historical trend, graphical view of medical
	equipment being integrated.
d	Should have provision to enter clinical notes remotely
е	Should be able to access all integrated medical equipment data remotely using
	standard web browsers on mobile phones or desktop computers.
f	Should have network authentication protects the data sources and keep patient
	information safe
g	Scope of Supply
h	All servers, hardware, software, networking, switching, input devices (computer
	on wheels).
1 -	Operating system, antivirus, software package.
i	WOU since more of Musica 2015 &
	Wireless Remote viewing of centralised/individual ICU data should be possible.
k	Equipment & Data Integration S/w should be from the same OEM .

Defibrillator with CPR Monitoring and TC Facing, Beneheart D3 with CPR Facility

Specifications

- Light weight and Compact In design
- High resolution 7" TFT Colour LCD display with 3 waveforms
- Energy selection up to 360 Joules.
- Facility of 3/5 lead ECG, Side stream EtC02 measurement,
 CPR monitoring Facility Of AED and Pacing.
- User friendly designed to aid efficient resuscitation like 1-2-3 steps to defibrillation. Colour coded buttons, large & highly visible alarms light. Buttons for energy selection, charging & shock delivery. Easily accessible functions via rotary knob and quick keys, Etc.
- In Built battery backup.
- In built three channel thermal recorder
- European CE Approved
- Scope of Supply each Unit
- Beneheart D3 with CPR Monitoring and TC pacing 1 Nos
- Paddles Adult cum Paediatric 1Nos
- ECG cable with electrodes 1Nos
- Integrated Side Stream etCO2 1 Nos
- Side Stream etCO2 sampling line 5 Nos
- Battery 1 Nos
- Multifunctional Disposable Pads 10 Nos
- Reusable CPR Feedback Sensor 1 Nos
- ECG Rolls 10 Nos
- Operating Manual 1 Nos



Specifications of ECG Machine

Operating modes of ECG Machine - Automatic, Manual and Rhythm

ECG machine should have ECG lead annotation facility

Leads which is in ECG machine should be able to acquire simultaneously and interpret them - 12

Number of channels - 12 Channel

ECG machine should acquire lead ECG for both adult and paediatric patients

The ECG machine should have facility to show lead fail indication

The ECG machine should have facility to show lead reversal indication

The ECG machine should have facility to show the impedance to quality check of connection

Acquisition time for ECG Machine in sec - 10 sec

Digital sampling rate for Pacemaker spike detection - 8000 s/sec/channel

Recording of digital sampling for pacemaker - 1000 s/sec/channel

ECG machine should have real time colour backlit display of ECG waveforms with signal qualify indication for each lead

ECG machine should have frequency filters - Artifact, AC and low and high pass frequency filters

Number of ECGs which can be store in ECG Machine - 151 to 200

ECG machine should have full screen preview of ECG report for quality assessment checks prior to print

Type of inbuilt screen - LCD

Size of screen in inches - 5

Display resolution of ECG machine in pixels - 640 x 480

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ECG machine should have interpretation facility of the amplitudes, duration and morphologies of ECG waveforms and associated rhythm for adult and paediatric patient

ECG machine should have alphanumeric keyboard for patient data entry - Hard keys

System should have the dedicated software to download the ECG form machine in PDF format

Printer Type - Thermal Printer

Recorder Paper Size - A4 Size

Recorder Speed - 50 mm/sec

Resolution of digital array printer - 200 dpi x 500 dpi

Number of Thermal paper - 500

ECG machine report format - Report formats of 3x4, 6x2, Rhythm for up to selected leads, 12 lead extended measurement, 1 minute of continuous waveform data for 1 selected lead

Battery

Provision of Battery

Battery Type - Built in Rechargeable Battery

Battery capacity of continuous rhythm recording on single charge (minutes) - 60

Battery capacity - 50 ECG or 1 hour of continuous rhythm recording on single charge

Connectivity to ECG Machine - LAN

Storage on external portable memories - USB support

The individual patient lead should be change without replacing the whole patient cable assembly

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Power input - 220-240 V AC, 50 Hz fitted with Indian plug

ECG Machine 12 leads with interpretation - 1

Patient Cable - 2

Chest Electrodes Adult (set of Six) - 1

Limb Electrodes - 2 for adults and 2 for paediatric

Power cable for charging

Supplied with Clip electrode

Compatible trolley provided

Compliance to Safety Standards - IS 13450:Part 2:Sec 25 / IEC 60601-2-25

Manufacturing unit certification - ISO:13485

Warranty (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue) - 5 year

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Dr. Ruchika Proteseor

Associate Proteseor

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Specifications of Electro mechanical BED

- Type of ICU Bed Actuator Electro-Mechanical (Motorized)
- Type of mechanism for functioning or controlling angular motion of bed part Electro-Mechanical (Motorized)
- Type of mechanism for functioning or controlling Height of bed Electro-Mechanical (Motorized)
- Bed top perforated Yes
- Bed should have radio translucent top (X-Ray translucent) Yes
- Type of side panel Swing Up Down type
- Number of Side panel 4
- Shape of Head & Foot panel /Board B-type shape
- Type of Head & foot Panel Detachable type
- Number of hooks provided in IV rod 2
- Availability of rectangular telescopic tube box housing for tension spring
- Degree Angle & Height indicator shall be provided at both foot & head side
- · X-Ray film holder used from One side
- Power of motor in HP 0.5 HP
- · Availability of patient constraint belt provided on both side of bed
- Number of caster to which braking system provided 2
- Safe working load capacity of ICU bed in kg 200
- Mattress provided with ICU bed
- ICU mattress must X-ray translucent
- Mattress shall be made of High resilient & bio-density foam
- Mattress should be translucent to allow radiography using portable Xray machines
- Mattress should be made in cube cut design & independent cubes promote air flow to reduce moisture
- Material for ICU Bed Mattress PU Foam
- Therapeutic Weight limit for mattress in kg150
- Power Supply (as appropriate fitted with Indian plug) Single phase 230 Volt, 50 Hz (AC Supply)
- Facility of Resettable overcurrent breaker shall be fitted for protection
- Warranty 3
- Conformity to standard for safety & electromagnetic compatibility IEC-60601-1-2:2001 Standard or IS-13450

- · Material for the frame of bed MS
- Material for side railing/ Side Safety guard ABS Plastic
- Material for Head & Foot Panel/Board ABS Plastic
- Material for Bed Top Section MS
- Material of wheels Polyester
- Maximum Adjustable Back Rest Angle in Degree 0-70
- Maximum Adjustable Knee Rest Angle in Degree 0-40
- Maximum Trendelenburg Angle in Degree with tolerance ±2 degree 15
- Maximum Reverse Trendelenburg Angle in Degree with tolerance ± 2 degree - 15
- Mean coil diameter of tension spring used in counter weight mechanism in mm - 40
- Spring coil diameter used in counter weight mechanism in mm 6
- Clearance between Bed Base frame and Floor surface in mm 150
- Length of bed in mm with 2% tolerance 2100-2200
- Width of bed in mm with 2% tolerance 1000-1050
- Spares ICU Bed Mainframe supplied 1
- Spares Pair of Bed Ends, detachable supplied 1
- Spares Collapsible side rails supplied 1
- Spares IV Rods supplied 1
- Spares Mattress similar to one supplied with ICU bed 1
- Electric Shock Protection Level Class-B/class-1Yes



Specifications of Air Mattress

Length of mattress (cms) 208

Width of mattress (cms) 85

Height of mattress (cms) 10

Mattress Weight (in Kg) 2.5

Mattress material - PVC (Polyvinyl chloride)

Type of Mattress - Bubble

Number of Static Tubular cell - 25

Number of Dynamic Tubular cell - 25

End Flaps for secure Fixing

Water Proof and Washable

Mattress load capacity (in Kg) - 130

Repair kit including - Yes

Air Pump included - Yes

Pump air flow in Litres Per Minute (LPM) - 5

Cycle time of inflation & deflation (in Minutes) - 10

Alarm available - Audio alarm for low pressure

Fold away hanging hooks or built in brackets for mounting easily to bed

Pressure control for pump - Automatic

Operating Sound (in Decibels dB) - 5

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Associate Professormology

Associate Professormology

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CELL Bearing ILLES

ON 100

Specifications of Air Mattress

Power Supply - 230V / 50 Hz

User guidelines should be printed on pum

CERTIFICATIONS & REPORTS

Availability of conformity certificate/test report of the equipment from OEM to prove conformity t the declared specifications

Product certifications - EU CE (from Notified Body)

Manufacturer certifications - ISO 9001

Submission of all necessary regulatory certifications, test reports to the buyer as and when demanded

Warranty - 3 years

