Electroconvulsive Therapy (ECT)

1.Description of Function:

The main aim of Electroconvulsive Therapy is to cause a massive convulsion in the brain (a massive epileptic fit). This is achieved by giving the brain an electric shock using an ECT Machine. ECT machines are, basically, transformers which modify Mains Current so that it is transmitted to the patient's skull in timed pulses.

2. Operational Requirements

1. The unit should have Parameter Display on LCD/LED 2. Should have auto Stimulus Voltage 3. Should have Auto Impedance Check 4. Should provide Output Display in joules & milli coulombs and EEG-ECG Monitoring on Thermal paper 3.

3.Technical Specifications

Technical data stimulus: 1. Bidirectional Square Wave 2. Current: 0.8 Amp Constant 3. Frequency Range: 70 Hz (Fixed) 4. Pulse Width: 1 ms (fixed) 5. Mode: Auto & Manual 6. Stimulus Duration in Auto mode: 0.1 to 5.9 sec. in step of 0.1 sec. 7. Cerebral Stimulation 0 to 40 volts

4. Accessories

Integrated or standalone compatible printer should be supplied. All the accessories to make equipment functional as per specifications should be supplied.

5. Power Supply

1. Power input to be 220-240VAC, 50Hz fitted with Indian plug 2.UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up

6. Standards & Safety

1. Should be FDA/CE/UL or BIS approved product.
2. Manufacturer should have ISO certification for quality standards.

EEG MACHINE

1. Should be a 32 Channel digital EEG Machine, where 24 Channels for acquisition and storage, 5 Polygraph Channels and 3 DC Channels.

2. Frequency response should be 0.05 Hz to 70Hz.

3. Should have facility to view all channels in different montages during acquisition and review.

4. Should have split screen facility to study and even carefully during acquisition, where data storage should be on going in hard disk.

5. Should have split screen facility in analysis to compare the data of same time or different times with individual selection of filters, sensitivity, montages etc.

6. Should have the facility for simultaneous acquisition and review of same record.

7. Should have the facility to mark pages / important events for printing in review.

8. Should have user definable photic stimulator protocol execution with display of photic marks on screen using LED or Xenon flash lights

9. Should have unlimited Montage Reformatting.

10. Should have HLF (15, 35, 70 Hz) and LLF (0.1, 0.3, 1.5, 3, 5 Hz) filters for each channel as well as for all channels for display.

11. Should have the facility for sweep speed selection.

12. Should have the facility to display traces with limit trace.

13. Should mark and annotate standards events such as Eyes open, Eyes closed, Hyperventilation on, Hyperventilation off, Artifact, and other user defined events of max. 50.

14. Should have separate sensitivity control for each channels as well as for all channels.

15. Should have the facility to enter patient details such as ID, Name, Referred By, Sex, Age, Patient History, Address, Doctor Name etc.

16. Should have the facility to review of selected patient form list, to sort data according to patient name, sex, age, test date etc, review another patient while acquisition and to edit the patient details.

17. Should have the facility to browse page by page, Scroll in forward and reverse direction and the speed of scrolling can be different speed levels such as same acquisition speed, 2 times, 3 times , 4 times the acquisition speed.

18. Should have user definable protocols for acquisition.

19. EEG pages should be displayed in BRAIN MAP montage and it should have the facility to view Amplitude brain map, Progressive amplitude brain map, frequency brain map, progressive frequency brain map, 4 bands frequency brain map with frequency spectrum, 5 bands frequency brain map with frequency spectrum, 4 bands frequency brain map with EEG & 5 bands frequency brain map with EEG in review mode.

20. Should have the facility to edit current page events, browse all the marked events. Display the page having the selected event, to store any number of marked EEG pages on another HDD.

21. Should have the facility for spike detection with amplitude greater than or equal to the specified amplitude and within specified duration.

22. Should have the facility to print all marked EEG pages / Brain map pages in queue.

23. Should have the facility to edit and print summary report, EEG page and Brain map page.

24. Should have Acquisition Hot keys for Sensitivity for all traces, Eyes open, Eyes close, Hyperventilation ON, Hyperventilation OFF, Mark page, Artifact, Annotated event, Toggle pause / Release pause, Snap shot mode, photic stimulation etc.

25. Should have Review Hot Keys for page mode, scroll mode, flip mode, next page, increase speed, mark page for printing, forward direction, reverse direction, previous page, decrease speed etc.

26. Should have an efficient data base management including Hospital details, Reference doctors list, standard comments for summary report etc.

27. Photic frequency should be 1-30 Hz, stimulating time 1-16 sec and pause time 1- 16 sec.

28. CMRR should be greater than 100 db and input impedance should be greater than 10 M Ohms.

29. Should operate from 200 to 240Vac, 50 Hz input supply.

30. Should have a high-resolution low light video camera.

31. Should have infra-red camera for night VEEG recording facilities.

32. Should have facility to upgrade EEG to sleep system in future.

33. Should be supplied all necessary accessories including EEG Disc Electrodes reusable – 1 set, EEG Paste – 5 Jar / sufficient quantity for 100 EEG Cases, Head Cap for Adult, & Infant – 1 each.

34. Should be supplied with a PC of adequate configuration having HDD of storage not less than 360 GB HDD, DVD/CD writer and a Colour Printer.

35. Monitors provided along with PC should be LCD / TFT and Colour Printer should be Colour Laser Printer.

36. Should supply online UPS of sufficient capacity with 1 hour backup to connect all the equipment supplied.

37. Should be supplied with a suitable Table/Trolley for keeping the equipment, PC, Printer and all the accessories.

38. 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. Copy of the certificate / test report shall be produced along with the technical bid.

39. Warranty of at least 2 YEARS.

Bio feed-back instruments

Biofeedback machine

Computerized Biofeedback for GSR, Temperature, Pulse Rate, Respiration, EMG, EEG Parameters.

Specifications

• Online Acquisition, Display and Storage for EEG, EMG, Respiration, GSR, Pulse and Temperature.

• Automatic Calculation of Individual Channel Amplitudes and rates.

• 3D Games on High Resolution secondary monitor for feedback

• User selectable audio feedback control

• User selectable volume control in 10 steps

• —Bio trainer‖ Relaxation Therapy System

• Neuro feedback/ Brain Feedback System

• Individual Feedback control

• System Containing at least 12 Different 3D Animations.

• Comprehensive Reporting and Trend Data Analysis.

Computer Hardware

COMPUTER: Last Computer processor with at least 3GB RAM CD/DVD R/W, 500 GB HDD,

Keyboard, and Mouse

MONITOR-1: LCD monitor 21‖ for test data.

MONITOR-2: LCD monitor 21‖ for animation pictures.

PRINTER: - Windows supporting inkjet colour Printer.

OPERATING SYSTEM: Windows XP/ Vista

Lithium analyzer

- System should measure Na, K, Cl, Ca, Li
- Facility for auto sampler tray for constant loading. Sample can be fed by capillary syringe or sample tube directly
- Sample volume should be less than 100 micro-liters.
- Auto Calibration Facility and provision for economy mode.
- Quality control facility
- Facility of flagging of abnormal results and user programmable ranges.
- Stand by mode: user controlled and automatically controlled
- Memory for last 100 messages.
- Built in printer for printing the data.
- RS 232 (standard serial port) should be available
- ISE Analyser-01
- Na, K, Ca, Li, Cl Electrodes- 02 each (1 standard and 1 spare)
- Power input to be 220-240VAC, 50Hz
- Suitable UPS with maintenance free batteries for minimum one-hour back-up should besupplied with the system
- Should be FDA or CE approved product

Thin-Layer Chromatography

Instrumental Thin-Layer Chromatography (or Planar Chromatography) is a modern separation technique, established worldwide and distinguished by flexibility, reliability and cost efficiency

Complete with IP/BP/USP standards having movable applicator with in-built thickness arrangement between 0.25 mm to 0.35 mm having following components as per Technical Specifications

Technical Specifications Thin Layer Chromatography System:

1. Spreader (Applicator) made of anodized aluminum, with fixed thickness and width of 5 cm, 10 cm and 20 cm.

2. Perspex brass size 125 x 25 cm to support 5 glass plate of size 20 x 20cm and two plates of size 20x5 cm

3. Plate store rack aluminum for ten 20x20 plates

4. Spotting template Perspex

5. Developing tank with lid

6. TLC plate set 20x20 cm or 20x 10 cm

7. Micro-Pipette 5 microliter and 10 microliter

8. Scriber for making lines

9. Glass sprayer with rubber bellow

10. TLC plate store cabinet

11. Special drying cabinet with inspection window

12. Desiccator cabinet 13. U.V. Chromatography inspection cabinet with two U.V. tubes 254 and 365nm

All consumables required for installation and standardization of system to be given free of cost.

Power Supply: 230V +/- 10%, 50 Hz

1. Should be FDA/CE/ BIS approved product. 2. Manufacturer should have ISO certification for quality standards.

Alcohol Breath Analyser

- Sensor: Advanced flat surfaced semiconductor alcohol sensor
- Warm-up time: Within 10 seconds
- Respond time: Within 5 seconds
- Operating temperature range: 5~40
- Detection range: 0.000-0.199% BAC / 0.00-1.99 BAC /
- 0.00-0.99 mg/L
- Digital display results (% BAC / BAC / mg/L)
- Power input: 3V (3 x ” ” alkaline battery.

Mechanical Ventilator

1. Should be 12” or more size touch screen.

2. Ventilator should have standalone compressor based system from same manufacturer (Turbine/ piston or inbuilt air-source within ventilators will not be accepted).

3. Should have the following modes.

a. Volume and Pressure Controlled modes

b. SIMV (Pressure controlled and volume controlled) with pressure support

c. Spontaneous modes like CPAP / PEEP

d. Inverse Ratio ventilation

e. Advanced mode like Pressure Regulated volume control mode and volume support mode.

f. Airway Pressure Release ventilation

g. Non-invasive ventilation.

4. Should have the facility for following settings:

a. Tidal Volume: Minimum 5ml and maximum of 1500 ml or more in Volume control

b. PEEP upto 30 cmH2O or more

c. Pressure support upto 35 cmH2O

d. Flow Pattern: Square, Decelerating

e. Respiratory Rate upto 80 bpm or more

f. Inspiratory Plaetau upto 60% of Inspiratory time

g. SIMV Rate upto 60 cycles/min

h. FIO2: 21% - 100%

i. Inspiratory and Expiratory flow and pressure Trigger Sensitivity

j. Manual Cycle, Inspiratory Pause, Expiratory Pause.

5. Should be able to monitor and measure the following parameters

a. Tidal Volume

b. Plaetau

c. Mean Airway Pressure

d. Peak Airway Pressure

e. Intrinsic PEEP

f. RSBI (Rapid Shallow Breathing Index)

g. Resistance and Compliance

6. In-line Nebuliser with capability of producing < 3 micron drug particle.

7. Should have the facility to find (Lower inflection point) and UIP (Upper Inflection Point)

8. Compiled trend analysis at least for 24 hours for all measured parameters.

9. Should have the facility to record multiple loops for comparison

10. Should have facility to measure: a. Pressure / Volume loops b. Flow/ volume loops

11. Should display minimum 2 curves/graphs /loops simultaneously on the screen

a. Should have audio-visual alarms for the following parameters:

b. Peak inspiratory pressure – High & Low

c. FiO2 – high & low

d. Respiratory rate – high & low

e. Tidal volume – high & low

f. Minute volume – high & low

g. Apnea h. Gas supply failure

12. Should have the facility for ETCO2 measurement

13. Should have battery backup atleast for 1 hour.

14. Event log: 1000 Alarm History.

15. Demonstration is must

16. Spares should be available for 10 years.

17. Should be supplied with 2 Silicon adult the 1 Pediatrics breathing, 1 imported humidifier and 2 ultrasonic nebulizers chambers

18. Should be US F.D.A. approved

19. Ventilator should have external compressor, from the same manufacturer.

20. Expiratory valve/cassette should be autoclavable and supply 2 nos.

21. Oxygen sensor should be covered under warranty.

22. Should provide ET-tube leak compensation

23. Compressor should be US-FDA approved .

24. Compressor, hinged arm and ventilator trolley should be from the same manufacturer.

The Monitor should have the following

1. A modular configurable patient monitor

2. Should have atleast 14”TFT colour display with up to 12 waveforms at a time.

3. Should be touch screen

4. Should be able to measure the following parameters:

a) 3/5 lead ECG with electrocautery & defibrillator filter with ST Segment & arrhythmia detection with analysis,

b) Respiration , SpO2 , temperature

c) NIBP, 2 IBP , ETCO2

d) Multi –Gas analysis with auto detection of all anesthetic agents

e) Integrated BIS/entropy Monitoring.

f) Upgradable to cardiac output (thermodilution) monitoring.

5. Should be able to automatically detect and calculate MAC of all anaesthetic gases.

6. Should be able to calculate and display FiO2.

7. Intelligent cooling system to keeps the unit running quiet during use.

8. Separate indicator lights for technical and physiological alarms.

9. Maximum BEEP tone should be loud enough to be audible from atleast a distance of 12 feet"s.

10. Should have graded audio and visual alarms for the following parameters:

a) Blood pressure - High and Low

b) SpO2 - High and Low

c) Heart rate - High and Low

d) Respiration - High and Low

e) FiO2 - High and Low

11. Trends – Upto 24 Hours or more, trend analysis, upto 24 hours full disclosure.

12. Battery Back- up – Li-ion Battery of 1 hour or more.

13. The machine should be internationally reputed company and should be USFDA approved.

14. Bidder must ensure regular supply of Sodalime

15. The machine should be supplied with the following accessories:

a. ECG Cable – 2 nos

b. Reusable SpO2 Sensors: 2 each for Adult, Pediatric & Neonatal.

c. NIBP Cuff: 2 each for Adult, Pediatric & Neonatal.

d. IBP Transducers: Disposable 10 nos.

e. IBP Cable: 2 nos f. BIS Electrode: 10 nos

g. ETCO2 Sample Line: 10 nos

h. Reusable autoclavable Breathing circuit: 2 nos each for Adult & pediatric

i. Upgradable to any one of the Advance modes like ASV/ Auto flow/ PAV+/NAVA/ smart care.

ECG/ETCO2 Monitor

1. Monitor should be completely modular with min 19” color capacitive LCD TFT display and Navigation through touch screen and knob both should be present.

2. Monitor should display ECG, SPO2, NIBP, Resp. 2 Temp, 4 IBP,& Sidestream/Microstream EtCO2 as standard feature

3. Monitor should have Transport monitor cum module facility for monitor of ECG , SPO2, NIBP, 4 IBP , 2X Temp with each monitor

4. Monitor should be upgradable with Cardiac output, PiCCO, BIS, NMT, AGM, EEGX4, ScVO2, & RM through External plug and play module. The monitor should be able to display at least 5 of these parameters simultaneously. Price should be quoted of each module separately

5. Monitor should have capability of simultaneously monitoring of Min 12 channel of waveform.

6. Monitor should be IT enabled for access to charting system. (HL7 compliant)

7. Parameter description should be as below

A. ECG - ECG: 3/5lead ECG;12-lead ECG data can be measured by standard lead placement - HR:15-350/min or broader,±1% or ±1 - pacer detector: sync with the pacing signal - ST analysis , QT analysis and arrhythmia analysis

B. Spo2 - Should be supplied with masimo SET technology with respective sensors. - Should display digital value and plethysmography

C. NIBP - By oscillometric principal of measurement with step wise deflation - Suitable for adult, pediatric, neonatal patients. - Should display systolic, diastolic, mean pressure in large easy to read display. - Should have manual/stat mode or automatic mode - Adjustable time intervals from 2-240 Minutes and adjustable alarm limits.

D. IBPs – simultaneous monitoring of 4 IBP's should be standard – - Range: max to 400 mmHg.

E. Temperature – two temperature one core and second skin simultaneous monitoring - Range Max to 50 deg C

F. EtCO2 – should be through Microstream/Sidestream method

8. Monitor should have non-volatile graphic and tabular trending of all monitored parameters as standard for minimum 120 hrs.

9. Monitor should have facility to record of 48 ECG full disclosure

10. Monitor should be ready for interface with select model of equipment like anesthesia machine, ventilators, Syringe pump of reputed companies displaying ventilation parameters, trend, waveforms & loops.

11. Monitor should have battery back up for 120 min

12. System should have facility of Remote viewing of data of each monitor on Mobile / Laptop/ Desktop without using any special server.

13. Monitor should have US FDA or European CE approved. Certificate must be enclosed

14. Six Central Stations:

a. 22 inch touch screen display

b. Minimum 16 beds view to be provided in each station

c. UPS with 15min backup

d. Dual display option (based on number of monitors to be connected)

e. Networking cost to be included

15. Scope of supply :

a. 5 Lead ECG Cable – 2 no with Each Monitor

b. Adult spo2 sensor with intermittent cable – 02 no with each

c. Pead Spo2 sensor with intermittent cable – 01 no with each

d. Adult & Pead NIBP cuff - 05 no with each

e. Skin & Rectal Temp probe – 01 no each

f. EtCO2 Water trap – 10 no with each

g. Sample Line – 10 no with each

h. IBP Intermittent cable – 02 no with each

i. IBP Disposable transducer – 10 no with each

j. Wall Mount – 01 no with each

5.Anaesthesia Workstation

Technical specifications:

- Anesthesia system should be high end three gas system with three gas Oxygen, Nitrous Oxide and Medical Air
- double scale flowmeter with high and low flow and minimal flow provisions.
- Should have an independent Oxygen flow meter for Oxygen delivery and an integrated variable flow suction unit.
- System should have at least three drawers and an additional writing surface that can be easily accessed.
- Drawers shall have the ability to lock , and shall be easily removed for the purposes of cleaning and sterilisation.
- Pipeline, cylinder and Airway pressures should all be displayed on colour coded gauges and be visible at all times during operation. Should have provision to attach 2 cylinders 1 each for O2 and N2O.
- Should have facility of delivering basal flow of oxygen on switiching on the machine.
- System should have a second user accessible port for extraction of Anesthetic gas when using a nonrebreathing patient circuit.
- System should also provide the option of returning sample gas to the scavenging system with a dedicated port.
- A single pneumatic/electric on/off switch should activate the gas flow and vaporization.
- The unit should have a battery back up facility for the ventilator in the event of power failure and should operate for a minimum of one hour.
- In the event of complete power loss and battery failure it shall still be possible to manually ventilate and deliver anaesthetic agent.
- System ahould have easily accessible common gas outlet in the event of an emergency and for use of alternate breathing circuits.
- Should have unlockable Oxygen flush to deliver oxygen flow of approximately 40l/min.
- Should have built in safety features like O2 failure alarm, N2O cutoff, Low O2 pressure etc., Should have motion sensitive back lighting for vaporizer dial adjustment.
- Should also have mandatory illumination of the writing table. The frame should have integrated power outlets to supply a minimum of four external devices.
- Should have locking of the front castors by a single central brake mechanism. Gas Flow The unit shall have a mechanical hypoxic guard system to control the ratio of Oxygen and Nitrous oxide to ensure a minimum of 25% of oxygen delivery at all times to avoid delivery of hypoxic mixture.

- It shall be possible to deliver Air with only basal flow oxygen independent of the above mentioned hypoxic control.
- Gas flow shall be controlled mechanically to avoid errors during power failure and electronic malfunction.
- Visual display of the gas flow shall be by physical means independent of electrical power.
- Cascade or dual flow tubes should be available for all gases to allow suitable resolution and accurate control at low total fresh gas flows.
- Flow meters should have backlight and antiglare illumination.
- The unit should have an independent measurement and display of fresh gas flow offering safety for low and minimal flow anaesthesia. A bag arm with height and positional adjustment shall be available as an option.
- Vaporizers The unit should accommodate two vaporizers for anesthetic agent delivery to allow easy selection of agent to be used.
- A third vaporiser storage area shall be available as an option.
- Vaporiser should be selectatec type, tool free installation and vaporiser of user choice can be mounted at will with interlocking facility to allow operation of only one vaporiser at one time.
- Vaporizers supplied with the unit shall be routine maintenance free for the life of the product.
- Should provide Isoflurane and Sevoflurane key filled vaporisers. Breathing System All parts of the breathing system that are in contact with patient gas should be latex free and autoclavable.
- Should not require tools when dismantled for cleaning and sterilization. Should accept large and small volume absorber canisters.
- The ventilator bellows shall be clearly visible and should ascend on expiration to provide a quick visual indicator for system leaks.
- Breathing system should have the option of C02 Absorber bypass control that will allow the absorber canisters to be removed without introducing system leaks.
- Should have bag / vent selecting valve integrated onto the absorber and should automatically turn on the ventilator when positioned to vent mode.
- Ventilatior Ventilator should be pneumatically driven, electronically controlled and should be ascending bellows type.
- Ventilator should automatically change drive gas should there be a gas depletion. Ventilator shall have a color display with touch screen user interface.
- Ventilator should have the following ventilation abilities, volume control, decelerating flow pressure control, SIMV with pressure support and pressure support.

- Ventilator should be capable of ventilating diverse range of patient groups from neonates to adult patients with restictive airways with tidal volume range between 20 ml to 1500 ml with single bellows system.
- Assisted modes of breathing should be flow triggered. Ventilator should have an active proportional exhalation valve to prevent the potential of over delivery during pressure modes of ventilation.
- Ventilator should have a leak and compliance test that can be done independently of the full system check.
- On switching on, the ventilator system should be able to and shall give the user a choice of doing a unit test or bypassing in the case of an emergency.
- Ventilator shall compensate for fresh gas flow and compliance of the entire circuit dynamically.
- Measurement at the patient end of the circuit (sensor at the patient end) should be provided to compensate for small leakages and compressible volume variability that occur during ventilation.
- User should also have the option of setting a pre set compliance correction where similar circuits are used constantly.
- Should provide constant fresh gas flow into the breathing circuit during the inspiratory phase as mandatory.
- Ventilator should have the ability to set and store a hospital default as well as individual user preferences for easy selection of ventilation parameters and include screen layout, alarm preferences and ventilation settings.
- User should be able to set their own password. Apnea alarms must be user adjustable to allow for all operating conditions and phases during Anesthesia.
- Ventilator should have the ability to display and store Patient Spirometery loops including Flow-Volume and Pressure Volume curves.
- Ventilator should also display waveforms for flow and airway pressure.
- Ventilator should display measured fresh gas independent of the flow meters.
- Ventilator should display a dynamic compliance measurement. Integrated Monitoring system: Anesthesia Monitoring system should be of modular type and capable of monitoring adult, pediatric and neonatal patients.
- Should be from the same manufacturer as of the anesthesia system.
- Monitor should have minimum 19” independent flat panel display with multi color touch screen user interface to ensure all parameters are visible simultaneously.
- Module rack / housing should be independent and should be able to be placed near to the patient. Should be capable of 8 traces display.
- Should have facility to monitor: ECG, NIBP, SpO2, Respiration, Invasive pressures (3), temperatures (2), Capnography and Bispectral index.
- Should have Cardiac output port enabled.

- Should have automatic identification and measurement of anesthetic agents, EtCo2, O2 and N2O and MAC value.
- Should have depth of anesthesia monitoring using Bispectral index. Cardiac output monitoring facility with all accessories.
- ECG should have capability for 3, 5 and / or 10 lead monitoring and should have built in arrhythmia monitoring on all 12 leads Inbuilt ST segment analysis and arrhythmia detection for all the leads should be available.
- Should have haemodynamic, oxygenation and drug dose calculations. EtCO2 should have both mainstream and side stream in one module.
- Respiration should be available with Cardio Vascular Artifact filter.
- OCRG(oxy cardio respiro gram) should be available for monitoring neonates.
- Alarm parameter should flash red in the presence of high priority alarms (e.g. ventricular fibrillation and asystole) and flash yellow in the presence of medium or low priority alarms (e.g. noisy signal, etc.) 24 hours trend data should be displayed.
- All monitors including central station should have similar user interface for usage among all clinicians. Modules should be compatible with transport monitors.
- Monitor shall provide capability to remote view of real time waveforms via the internet.
- Should be able to upgrade to softwares for electronic flow sheet and full dislcosure of all waveforms.
- On-screen keyboard for entering this data should have USB ports to connect mouse, key board, bar code scanner.
- Alarm limit status (ON/OFF) must be indicated on-screen for each parameter and actual parameter alarm settings must be displayed on-screen when alarms are on.
- Position of the displayed waveforms and color of the waveform must be user configurable.
- Monitor shall permit the optional ability to receive and display information from other patient devices such as ventilators, infusion pumps and other standalone devices.
- All modules should be compatible with all monitors quoted. Should be supplied with necessary accessories for adult , pediatric and neonatal accessories.
- Should be US FDA Approved Should be compatible with HIS and Should be HL7 compliant Monitor should have capability to accommodate remote viewing of real time waveforms through internet.
- Accessories and spares
- ECG / respiration: 5 lead ECG cable and lead wire set and 10 lead ECG cable and lead wire set per monitor
- NIBP: Adult: 2 sizes and Pediatric 2 sizes and neonatal, 1 size per monitor

- SPo2 Sensor: Adult sensor with cable, pediatric sensor with cable and neonatal sensor with cable per monitor
- IBP: Include 10 nos of disposable pressure transducer with bracket and interface cable per monitor
- Temperature: Skin and nasopharyngeal probes per monitor
- BIS: 25 nos of disposable sensors per monitor
- Environmental factors:
- Safe disposal system : AGSS – Anesthetic Gas Scavenging System, should be in place

Psychological Tests equipment - Projective tests

Specification:

Psychological Tests equipment - Intelligence Tests

Specification:

Psychological Tests equipment - Personality Tests

Specification:

Psychological Tests equipment - Neuro psychological tests

Specification: