Department of Anesthesiology

| Sr. No. | Name of Equipment | Specification | Quantity required | Suggested Manufacturers Name | Approx. Unit Cost (Rs.) | Usage |
|------------|-------------------------|---|----------------------|--|----------------------------|---|
| 1 | Anesthesia work station | Anesthesia Apparatus with Circle Absorber and Fluotec Vaporiser (with provision for Selecta Tec Back Bar) - Must have antistatic castor wheel Should have provision for spare Cylinder with Bourdon pressure gauge Must have color coded yoke & port Must have pin index system Must have link 25 mechanism - Must have Pop of valve Must have oxygen failure alarm Must have vaporizer for Halothane Calibrated Vaporizer Agent specific vaporizer Pressure compensated Flow compensated Must have antistatic corrugated tubing Table top for arranging drugs and syringes Should have provision for two inlets for two oxygen and two inlets for nitrous oxide cylinders with pin index system. A Type High pressure relief value in the back bar system. | 08 | *Dragor *wipro-GE Healthcare *Spacelab healthcare *Penlon *Scientific International *Biomedical sysmtm | 150000/- | TO Anesthetize the patient during surgery so that patient is unaware of the surgery & feels no pain & also supports life. |

| - Diapharm in the pressure regulator |
|--|
| Teflon or Steel. |
| - Breathing circuit with Inflation |
| pressure manometer. |
| - 5 meters of High pressure tubing color |
| coded for oxygen and Nitrous oxide |
| with schradder valve attachment and |
| Pin index at the machine end. |
| - Provision for two 60 Psi. Oxygen |
| source built in the machine. |
| - The soda lime canister should be |
| double chambered single piece with |
| Metal bar on the top with provision for |
| APL valve. Gas inlet and outer change |
| over knob to isolate the canister. |
| - Table top for keeping Anesthesia |
| Ventilator and Monitor. |
| - Should have a capacity of 1.5 kg or |
| more. |
| - Should have visible inspiratory and |
| expiratory valves. |
| - Should have adjustable pressure relief |
| valve. |
| - Should have single switch change over |
| from spontaneous to bag ventilation. |
| - Should have local technical support, |
| Technical Engineer for 24 hours. |
| - Acomprehensive warranty for 3 years. |
| Original supplier should quote AMC |
| after 3 year. |

| 2 | C- pap unit | - From a company of international or national | 02 | *Mercury Medical | 100000/- | A breath supporting |
|---|--------------|---|----|-------------------|----------|------------------------|
| | | repute. | | | | equipment during |
| | | - Mode of ventilation should be CPAP with | | *Apria Healthcare | | respiratory failure. |
| | | temperature controller | | | | |
| | | - Digital display for pressure and time | | *Mediworld | | |
| | | parameters. | | | | |
| | | - Adjustable pressure range upto 20cm of | | | | |
| | | H2O. | | | | |
| | | - Ramps time should be unlimited. | | | | |
| | | -Hour meter counter to record the operation | | | | |
| | | time. | | | | |
| | | -Complete with pollen filters and carrying gas. | | | | |
| | | - Power of 220V, 50 Hz. | | | | |
| | | - Should have warranty of three yrs | | | | |
| | | - Any other added features. | | | | |
| 3 | Bi- pap unit | - From a company of international | 02 | *Mercury medical | 200000/- | Respiration supporting |
| | | repute. | | | | equipment, helpful in |
| | | - Automatic BIPAP unit for pre & post | | *Apria healthcare | | respiratory failure. |
| | | operative treatment to assist breathing | | | | |
| | | mechanism & gas exchange for | | *Mediworld | | |
| | | paediatric & adult patient and also | | | | |
| | | sleep apnea | | | | |
| | | - Mode of ventilation should be BIPAP | | | | |
| | | ventilation. | | | | |
| | | - Digital Display for pressure and tome | | | | |
| | | parameter. | | | | |
| | | - Adujustable pressure range upto 30cm | | | | |
| | | H2O | | | | |
| | | - Should have warranty of three years | | | | |
| | | - Any other added feature | | | | |

| 4 | Fiber optic | 11302 BD1 Intubation fiberscope 3.7 mmx 65 | 02 | *Karl storz | 600000/- | To put a breathing |
|---|-------------------|---|----|-------------------------|----------|-------------------------|
| | laryngoscope | em with instrument channel | | | | tube in patients |
| | (adult) | Diameter 1.5mm | | *Flexicare medical ltd. | | respiratory passage in |
| | | Direction of view 0 deg, Angle of view 90 deg | | *Olympus | | difficult cases for |
| | | Working length 65 cm, O.D Distal 3.7 mm | | | | anesthesia. |
| | | Deflection140/140 deg | | | | |
| | | The following accessories are included: | | | | |
| | | 27677C Case | | | | |
| | | 13242 XL Lekage tester | | | | |
| | | 11025 E Pressure compensation cap | | | | |
| | | 27651 AL Cleaning brush' | | | | |
| | | 13272 Bite protector | | | | |
| | | 20112301 Cold light fountain, halogen, 150 | | | | |
| | | Watt consists | | | | |
| | | 495 NL Fiber optic light cable size 3.5mm | | | | |
| | | length 180cm | | | | |
| 5 | Bispectoral index | From a company of International or National | 02 | *Philips Healthcare | 200000/- | To measure & guide |
| | monitor | repute with after sale service | | | | the depth of anesthesia |
| | | Product description : BIS monitoring system | | *ASPECT Medical | | in patients. |
| | | for display of processed data | | system | | |
| | | and real-time EEG waveforms | | | | |
| | | Monitor weight : 3 lbs (1.5 kg) | | *Datexohmeda | | |
| | | Monitor dimensions : 6.5 in high x 6 in wide | | | | |
| | | x 5 in deep | | | | |
| | | (16.5 cm x 15.2 cm x 12.7 cm) | | | | |
| | | Display size : 3.6 in (9.1 cm) | | | | |
| | | Digital output : USB ports A,B, RS232 serial | | | | |
| | | port | | | | |
| | | Power requirements : 100-240 VAC, 50-60 | | | | |
| | | Hz, 0.7 amp max | | | | |
| | | Electrical safety: Conforms to: UL 60601-1, | | | | |
| | | IEC 60601-2-26, | | | | |

| | | CAN/CSA-C22.2 #601.1 Battery backup: 45 minutes or more at full operation Recharge time: 6 hours or less Alarms: Auditory and visual, user-adjustable limits | | | | |
|---|--|--|----|--|----------|---|
| | | BISx TM specifications Weight: 10 oz. (.284 kg) including integral cable Dimensions: 3.75 in wide x 2.5 in high (9.5 cm x 6.3) Cable length: 9 ft (2.7 m) integral BISx cable 4.5 ft (1.4 m) from BISx to sensor connector Should have warranty for atleast 3 yrs,And with any other added feature | | | | |
| 6 | Paediatric resuscitation dummy(cpr mannequin) | This mannequin should be light weight and rugged. Should have foam filled body and no internal parts to break Should have anatomical landmarks such as nipples,xiphoid process and Substernal notch Should have easy to replace nose / mouth pieces Should have disposable airways with unidirectional valves Should have carrying bag Should have longer warranty period and Any other added feature | 01 | *Laerdal medical *Gaumard healthcare *Apex Medical | 500000/- | Helps in learning resuscitation techniques in children. |

| 7 | Transcutaneous electrical nerve stimulator | From a company of International or National repute with after sale service Channel: Dual Pulse amplitude: adjustable 0-80 mA peak into 500 ohm load each channel Constant current Pulse rate: (Adjustable) 2Hz – 120 Hz Pulse width: (Adjustable) 40 μ S – 260 μ S Modulation mode: pulse width is automatically varied in a cyclic pattern over an interval of nominally 5 seconds. pulse width decreases linearly over a period of 1.5 seconds from the control setting value to a value that is 35% less. The narrower pulse width will continue for 2 seconds, then increase linearly over a 1.5 second period to its original value. The cycle is then repeated Burst mode: Bursts consist of nine pulses at maximum pulse rate. Bursts occur twice every second Wave form: Asymmetrical Bi- phasic square pulse Voltage: 0 – 110 volt. (open circuit) Max charge per pulse: 21 micro coulombs Battery: 9 volt battery (alkaline, or nickel cadmium rechargeable) Battery life: approximately 100 hours at middle range settings Should have warranty period of minimum 3 | 02 | *HMS Medical system *Grand services Medicare *India Medico instruments | 100000/- | Relieves pain by stimulating particular nerve supply. |
|---|--|--|----|--|----------|---|
| | | yrs Any other added feature | | | | |

| 8 | Neuromuscular monitor | -Should be non invasiveShould permit evaluation of state of relaxationShould be compact, light and simpleShould have battery operated stimulatorShould have mounting brackets for securing the deviceShould have modes of stimulation with single twitch, tetanus and train of fourWarranty for 3 yrsService centre should preferably be there at Indore. | 02 | *BELL Medical *Drager *shwill medico pvt. Ltd. *BVM mrditech Pvt Ltd | 200000/- | Measures & guide depth of Anesthesia. |
|---|--------------------------|--|----|--|----------|--|
| 9 | Na+/k+ analyser | Electrolyte analyzer ISE for Na, K, Ca, Li. For Whole Blood, Plasma, Serum, Urine. Sample volume: - Blood / plasma / serum 35- 200 micro litres (chemistry dependent) Urine (diluted) 50-250 micro litres (chemistry dependent) Low maintenance electrodes - sealed or membraning Digital display Stat Mode of operation. Auto sampler. Self diagnostics program; system monitoring and maintenance modes Storage QC data Integral printer Calibrators,controls,reagents,consumables for start-up Complete with electrodes. 220V, 50 Hz. Any other added feature | 01 | *Rosch enterprises *Operon biotech & healthcare. *SM Diagnostic | 30000/- | Measures the level of sodium & potassium level in blood. |

| 10 | Ozone generator (air | Ozone Out Put | : 05 G/hr –50 G / hr 1 6 | 04 | *Chemtonics | 100000/- | To purity air in O.T. |
|----|----------------------|-------------------------------|--|----|--|----------|-----------------------|
| | purifier) | Ozone Concentration | : 40 G/m³ - 90 G/m3 ² | | *Faraday ozone *EnvirOzoneTechnocraft | | |
| | | MOC of Ozone Cell | : SS 316 L / Ceramic | | Pvt Ltd | | |
| | | Enclosure – MOC | : Carbon Steel | | | | |
| | | Enclosure - Finish | : RAL 7035, Structure Powder : Coated | | | | |
| | | Dielectric | : Precision Ceramic | | | | |
| | | Corona Discharge | : 0.6 - 0.9 W/cm2 | | | | |
| | | Power Efficiency | : 6.0 – 8.0 W/g of O3 | | | | |
| | | Cell Electrode Cooling | : Internal & External | | | | |
| | | Cell Cooling Medium | : Forced Air | | | | |
| | | Power Supply | : Switch Mode Power Supply : (SMPS) 3 | | | | |
| | | Power Amplifier | : IV – Generation IGBT : Technology | | | | |
| | | High Frequency Transformer | Forced Air Cooled Ferrite Core | | | | |
| | | Indicators | : Power + Stand By + Ozone ON | | | | |
| | | Variable Ozone Control | : 25 % - 100 % | | | | |
| | | Service Indicator | : Non Re-settable Hr Meter | | | | |
| | | Operating Temperature | : 15° C - 40° C | | | | |
| | | Line Voltage | : 230 V ac; 50 HZ / 110 V ac; 60 Hz | | | | |
| | | Installation Condition | : Floor / Wall | | | | |
| | | Specified Life | : 20,000 working Hrs 4 | | | | |

| Fe Cc | randard Usage : 24 x 7 x 365 – commercial & Industrial Use seed Gas : Oxygen soncentration : > 90 % sue Point : > -45° C |
|-------|--|
| Er | : Line Voltage surge & spike : Delayed Soft Start off : Over temperature protection : Over Current : Over Voltage : Under Voltage : High Voltage Short Circuit : High Voltage Open Circuit : Feed Gas Non Return Valve : Feed Gas Safety Interlock : Ozone Non Return Valve : Anti-corrosion lacquer coating nclosure: UL - Certified : CE - Marked : Electricals Electronics - IP 54 : Ozone Cell - IP 65 |
| Se | ensors: CoolingFanOperation |
| | FeedGasFlow PowerIGBTTemperature |
| | ORP Controller Connectivity |