



Bihar Medical Services & Infrastructure Corporation Limited, 2nd & 3rd Floor, Swasthya Bhawan, Behind IGIMS, Sheikhpura, Adjacent to State Health Society, Patna 800023, Phone/Fax: +91612 2283287,+ 91612 2283288

Corrigendum-II

Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) had invited E-Bids from the interested parties for the procurement, rate contract and the supply of medical equipment for different Govt. Institutions of Bihar vide Notice Inviting Re-tender No.- BMSICL/2024-25/ME-388. During and after Pre-bid meeting various suggestions were received from different prospective bidders regarding amendment in technical specification of equipment which were discussed and deliberated on by the experts, who after due deliberation recommended certain amendments in the technical specification of the equipment, which are annexed as Annexure-I of this corrigendum. Rest of the terms & conditions of the NIT & Corrigendum-I shall remain unchanged:-

Tender Reference No.	BMSICL/2024-25/ME-388
Last date and time of submission of online bids	17th February 2025 till 17:00 Hrs.
Last date and time of submission of original documents of EMD, Tender Fee and Document	18th February 2025 till 14:00 Hrs.
Date, Time and Place of opening of Technical Bid	18th February 2025 (at 15:00 Hrs.) on the website of https://eproc2.bihar.gov.in in the office of BMSICL
Date and time of opening of financial Bids	To be announced later on https://eproc2.bihar.gov.in

Note:-

- 1. Bidders are advised to refer to the Annexure-I of this corrigendum before submission of bid.**
- 2. Those who have submitted their bids are requested to re-submit their bids in accordance with this corrigendum.**

Annexed:- as above

**Sd/-
GM (Procurement)
BMSICL**

Annexure-I				
GANGWARA HOSPITAL, DARBHANGA, BIHAR				
Department wise equipment list for 100 bed				
Sl.N	Name of equipment	Qty.	Technical Specifications	Final Amendment
I	Surgical Instruments			
1	Small General set	3	Note:- The list of instruments from Sl. No. 1 to 8 enclosed as Annexure-A in which all instruments details with their quantity is mentioned, Surgical instruments from Sl. No. 6 to 8 should be read as "SET" instead of Tray Surgical Instruments from Sl. N0-1-8 Should be ISO Certified (accredited by NABCB/IAF)	The list of instruments from Sl. No. 1 to 8 enclosed as Annexure-A in which all instruments details with their quantity is mentioned, Surgical instruments from Sl. No. 6 to 8 should be read as "SET" instead of Tray Surgical Instruments from Sl. N0-1-8 Should be ISO 13485
2	Breast set	4		
3	Hemimandible set	4		
4	Tracheostomy set	5		
5	Gynac set	2		
6	Dressing Tray	12		
7	Suture Tray	12		
8	Biopsy Tray	12		
A	Sub total			
II	Laboratories (Composite Lab)			
9	CBC analyzer 5 part	1	Should be fully automated hematology analyser based on impedance and flow cytometry technology or equivalent. It should be capable of handling at least 200 CBC samples per day.	No Change
			Should give at least the following parameters:	No Change
			WBC count, RBC count, Hemoglobin, Hematocrit, MCV, MCH, MCHC, RDW, PLT,MPV,PDW, NRBC percentage and absolute counts, NEUTROPHIL percentage & absolute counts, EOSINOPHIL percentage & absolute count, BASOPHIL percentage & absolute count, MONOCYTE percentage &	No Change

			absolute count, LYMPHOCYTE percentage & absolute count with direct measurement of each leukocyte population.	
			Should be capable of performing automated Reticulocyte analysis and enumerate immature reticulocyte fraction as well as mean reticulocyte volume.	No Change
			Should offer automated body fluid analysis for: CSF, Serous fluids and Synovial fluids	No Change
			Should have Automation System with Auto loader and be able to perform analysis in different modes such as CBC, CBC/Diff, CBC/Diff/Retic, CBC/Retic or Retic Only	No Change
			Auto loader should have ability to load atleast 100 tubes at a time with automatic mixing and cap-piercing	No Change
			Should have a positive tube identification with bar code be integrated at time of aspiration.	No Change
			Should have the following minimum linearity range:	No Change
			WBC: 0.02 to 300.00 x10 ³ CELLS/μL	No Change
			RBC: 0.00 to 7.00 x10 ⁶ CELLS/μL	No Change
			HGB: 0.00 to 22.0 g/dl	No Change
			PLT: 5 to 3000.0 x10 ³ CELLS/μl	No Change
			RET: 0.20 to 24.0 % (Please mention in % only).	No Change
			Should have a throughput of not less than 100 samples per hour in the CBC/Diffmode and should require not more than 200μl.	No Change
			Should have system to avoid short sampling.	No Change
			Should have minimum routine maintenance with automatic Electronic Aperture Cleaning after every cycle.	No Change
			Must have bi-directional communication capability with laboratory information system	No Change

			Should have storage of atleast 10000 numeric patient results, 5000 including graphics, unlimited number of user-definable and patient control files	No Change
			The unit should be CE certified (notified body) USFDA Approved.	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			All reagents and quality control materials as per instrument manual and manufacturer policy should be quoted.	No Change
			Latest PC Configuration - Processor : One Intel Xeon or equivalent Processor. Memory of 16 GB RAM, Hard Drive - 500GB	No Change
			Interface Software corresponding with the equipment with accessories.	No Change
			HP Printer to be provided along with the unit.	No Change
			Power supply- 100-240VAC, 50-60Hz.	No Change
			Please submit price list of all consumables and QC materials.	No Change
			Performance certificates of IQ,OQ,PQ tests to be submitted at the time of installation/commissioning.	No Change
			Should be supplied with standard make UPS	No Change
			Please specify pre installation requirements [electrical, HVAC, Compressed air (please specify required air pressure), water requirement (RO/DI/Distilled water with its pressure, flow rate per hour) ; if any of the above is essential]	No Change
			Warranty- 3 years	No Change
			Maximum speed should be 6000(RPM) or More	No Change
		2	Max. Achievable Speed: Not Less Than 20000 Rpm And 32000 X G	No Change
			Noise Level: <60Db	No Change
			It Should Be With Brushless, Maintenance Free Drive Motor.	No Change

10	Centrifuge	Microprocessor Controlled Operation With Digital/Lcd Display For Speed, Temperature And Time.	No Change
		Should Have Ability To Spin For A Time Of 1Min To 99 Min.	No Change
		Should Have Viewing Port In The Lid.	No Change
		Should Have Powered Lid Locking.	No Change
		Should Have Quick And Easy Operation With The Keypad	No Change
		Should Be Able To Store 4 Or More Programs.	No Change
		Rotors And Lids Should Be Autocleavable At 121°C For 20 Mins.	No Change
		Should Have Emergency Lid Lock Release Function.	No Change
		Should Provide Lid Dropping Protection.	No Change
		"Door Interlock" Safety Feature Is Essential.	No Change
		It Should Be Possible To Set Rpm As Well As Rcf.	No Change
		Should Have Imbalance Switch-Off Function.	No Change
		Automatic Rotor Recognition	No Change
		Parameters/ Programs To Be Changed With The Help Of Keypad.	No Change
		Easy Entry Of Parameters	No Change
		Rotor Should Be Aerosol Tight.	No Change
		Need rotor head of 24*15ml(with RPM of 4000 or More)	No Change
		Power Supply- 100-240Vac, 50-60Hz.	No Change
		Model should beUSFDA/European-CE (Issued bynotified body)	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
		Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air.	No Change
		Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning.	No Change
		warranty- 3 year	No Change

11	Semi Auto analyzer	1	The equipment; Semi-automatic bio chemistry analyser is used for measurements of bio-chemistry tests, using wet chemistry reagent(s) and have ability to use external cuvettes and integrated flow cell. Semi-automated Bio Chemistry Analyser is with built in software for the calculation and curve plotting. Light source is LED or Halogen Bulb. It must be an open system capable using all brand reagents and all the test programs should be in open mode.	No Change
			Should be LCD display with Touch Key board.	No Change
			should be Permanent flow cell	No Change
			Light source should be Halogen Lamp (or) LED	No Change
			should be Photometer with 8 wavelength filters in the range of 340-700 nm (340,405,505,546,578,600,630,670)	No Change
			Bandwidth 10 nm+or -	No Change
			absorbance range should be 0 to 3.0 unit. or better	No Change
			analyzer resolution should be 0.0001 absorbance unit or better	No Change
			Measurement range should be 25, 30, 37 degree Celsius with 1 degree increment, Peltier	No Change
			Memory should be storage test results should be ≥ 500 tests	No Change
			Analyser shall maintain nominal temperature, with suitable heat dissipation/ cooling mechanism.	No Change
			number of programm should be ≥ 100	No Change
			should be maintain End point with factor or standard, fixed time with factor or standard, Kinetic; Enzyme kinetics with factor or standard, Absorbance, Sample blanking, Differential mode with factor or standard, Bichromatic, calculated test.	No Change

			Linear factor, Multi point, Point to point, Log-Logit, Spline, 1-point calibration, 2-point calibration, Polygonal multi standard (Calibration Curve), Rate linear and non Linear, Absorbance and delta OD limit, Bichromatic, Kinetic with calibrator, 1-point sample Blank linear and nonlinear	No Change
			flow cell material should be Quartz + Metallic	No Change
			flow cell volume should be 0- 32 microliters.	No Change
			flow cell optical path should be 10 mm.	No Change
			Aspiration volume should be < 400 microliters.	No Change
			should be Peristaltic Pump Aspiration system with calibration facility, Air purge	No Change
			option between two sample	No Change
			should be Compatible with electric power from by 220V-240V 50Hz (+/-10%) AC source	No Change
			Preventive Maintenance kit should be supplied with instrument. PM kit must provide with one Halogen Lamp as an emergency spare (Not applicable for LED Models) and at least	No Change
			One Cuvette (Applicable for All Models) and tubing kit. Please confirm	No Change
			should be In-built Thermal Printer required.	No Change
			Printer on/off mode should be available Vender to confirm & specify.	No Change
			Graph print on/off mode should be available,	No Change
			By RS232 port/USB/HDMI port facility, Vender to confirm & specify	No Change
			should be Compatible viz analyser equipment preloaded with Software needed for lab interface	No Change

			Collated report by date, ID, and test wise recall results option if any please mention.	No Change
			Test result storage (mention the storage capacity)	No Change
			Warranty - 3 year	No Change
			Model should beUSFDA/European-CE (Issued by notified body)	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			notified body)	No Change
			Equipment is suitable for storage and capable of operating continuously in ambient room temperature of 8-degree C to 37-degree C and relative humidity of 15 to 90% in ideal circumstances	No Change
12	Micropipette (100-1000 micro letter)	3	Should Be Made Of Mechanically Robust And Chemically Resistant Materials	No Change
			Must Be A Durable And Stable Pipette Providing Consisting Performance For Long Time.	No Change
			Should Be A Light Weight Pipette Enabling Smooth Single Handed Pipetting To Improve Efficiency	No Change
			Must Be Fully Autoclavable	No Change
			Should Be Designed To Dispense Accurate Volume Of Liquid With Long Term Precision.	No Change
			Should Be Ergonomically Designed For Ease In Operation And User Tested.	No Change
			The Micropipette Should Possess A Separate Tip Ejection Button, A Volume Changing Knob.	No Change
			There Should Be No Metal Parts To Rust Or Corrode	No Change
			Volume Adjustment: Within Few Turns The Adjustable Volume Should Be Reached.	No Change
			Volume Display In 4 Digits.	No Change
			Volume Must Be Automatically Locked	No Change
			Maintenance Free Nose Cones	No Change
			Two Button Operation	No Change

			Should Be Operable In 5µl Increments With An Accuracy Of ± 1.0 To 0.6%, Precision Of 0.6 To 0.2% Or Better.	No Change
			Must Provide Consistent Results Even In Long Pipetting Series (Please Provide The List Of Users)	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Warranty- 3 Year	No Change
13	Osmometer	1	Should Have Working Principle Of Freezing Point Depression Method For Determining Osmolality	No Change
			Should Be Able To Process All Body Fluids, Urine, Serum	No Change
			Sample Volume Range Should Be 50µl To 100µl Or Better	No Change
			Osmolality Measurement Range Should Be 0-2000 Mosmol/Kg	No Change
			Desirable Test Time Should Not Exceed 2 Min	No Change
			Should Have Capacity To Process One Sample At A Time	No Change
			Should Offer The Flexibility Of 2 Or 3 Point Calibration To Satisfy Clia Calibration Verification Requirements	No Change
			Should Have Accuracy Of Standard Deviation(Sd) ≤ 4 Mosmol/Kg With In Run Of 0-400 Mosmol/Kg H ₂ O And Rsd $\leq 1\%$ With In Run Of 400-2000 Mosmol/Kg H ₂ O	No Change
			Should Have An Option For Data Storage Up To 1000 Test Reports	No Change
			Should Have Option For Pc And Printer Connection	No Change
			Should Have Barcode Scanner	No Change
			Essential Accessories Which Are Required For The Equipment Functional Needs But Is Not The Part Of The Standard Equipment Should Be Mention In The Financial Bid With Prices	No Change
			Power Supply- 100-240Vac, 50-60Hz.	No Change

			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning.	No Change
			Warranty: 3 Years	No Change
14	Semi Automated Coagulometer	1	Coagulometer Measures The Blood Clotting Parameters	No Change
			Should Be Microcomputer Controlled	No Change
			Semi Automatic With At Least 4 Channels Optics	No Change
			Based On Optical Principle With Led	No Change
			Should Have Intergrated / External Incubation Block With Pre- Warming Positions.	No Change
			Suitable For Pt, A-Ptt, Fibrinogen, Thrombin Time, Factors: Ii, V, Vii, Viii, Ix, X, Xi, Xii, Fletcher, At-Iii, Protein C, Protein S, Heparin, Stat	No Change
			Results Can Be Represented In Seconds, %Activity, Ratio, Inr G/L And Mg/L	No Change
			Should Be Able To Store Specific Test Paramenters In The System	No Change
			Should Haave Lcd Display	No Change
			Complete System With Printer Or Facility For Priner Connectivity Is Required.	No Change
			Should Generate The Standard Curve For Factor Assays	No Change
			Open System For Reagent And Low Reagent Consumption	No Change
			Reagents For Validation, Training Up To Installation To Be Provided Free Of Cost By Manufacturer.	No Change
			Model should be USFDA/European-CE (Issued by	Model should be USFDA/European-CE (issued by notified body)/ISO 13485

			notified body)	No Change
			Manufacturer/Supplier Should Have ISO 13485 Certification For Quality Standards.	No Change
			Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air Conditioner.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning	No Change
			Warranty: 3 Years	No Change
15	PH meter	1	Bench Top Ph Meter With Two Electrode And Buffer.	No Change
			One Electrode For Measuring Ph For Reagents.	No Change
			One Electrode For Measuring Ph For Qc Sample (Min Volume 500 Microlitre To 1000 Microlitre).	No Change
			3 Point Calibration Is Required(Ph 4.0, 7.0 & 10.00)	No Change
			Ph Range From 0-14.	No Change
			Temp. Range 0°C To 100°C	No Change
			Temp. Display On Screen As Well As Ph Reading.	No Change
			Calibration Certificate To Be Provided.	No Change
			Automated Ph Meter Preferable.	No Change
			Performance Certificate Of Iq, Oq, Pq Tests To Be Submitted At The Time Of Installation/ Commissioning, If Desired By The End User	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Warranty 3 Year	No Change
16	Incubator	1	Capacity Should Be 150 Litres Approximately.	No Change
			Temperature Display Should Be Intuitive Control Panel With Led/Lcd Display & Should Have Touch Sensitivity Key Pad	No Change
			Should Have Powder Coated Electorgalvanised Steel Exteriors With Antimicrobial Coating	No Change

			Temperature Range Should Be From Ambient +3°C To 60°C	No Change
			Temperature Accuracy Should Be +/- 0.2°C At 37°C	No Change
			Temperature Increment Should Be 1°C	No Change
			Should Have Microprocessor Digital Pid Control	No Change
			Inner Door Should Have Safety Glass Door	No Change
			Airflow Should Be By Means Of Forced Air Convection.	No Change
			Chamber Material Should Be Stainless Steel (304)	No Change
			Should Have Minimum 4 Shelves	No Change
			Should Have Auto Tuning Function & Digital Timer With Delayed On/Off Function	No Change
			Should Have High Temperature Limit Setting And Open Door Alarm	No Change
			Should Have Rs 232/ Rs484 Interface For Data Communication	No Change
			Should Have Access Port For External Temperature Mapping.	No Change
			Model should beUSFDA/European-CE (Issued by notified body)/ ISO 13485 certified	No Change
			Electrical powerrequirements 220-230 Vac, 50-60Hz	No Change
			Warranty :3 Years	No Change
17	Hygrometer	2	Range Should Be -49.9 To 69.9°C	No Change
			Resolution Should Be 0,1°C/°F	No Change
			Accuracy Should Be ±1°C	No Change
			Sensor Type Should Be Thermistor	No Change
			Battery Type Should Be 1.5 Volt Aaa	No Change
			Battery Life Should Be 10000 Hours	No Change
			Should Be Dual Custom Lcd/Display	No Change
			Dimensions Should Be 18X41X76Mm Or More	No Change
			Weight Should 85 Grams Or More	No Change
			Humidity Should Be 20 To 98%Rh	No Change

			Model should beUSFDA/European-CE (Issued by notified body)/ ISO 13485 certified	No Change
18	Refrigerator	3	Capacity Of Storage: 300 Litres	No Change
			Temp Range-Should Have Adjustable Temperature Control Range From +1 Degree To +8 Degree C, Factory Preset At 4 Degree C.	No Change
			Refrigerator System-	No Change
			A) The System Should Have High Density CFC –Free Urethane Foam Insulation To Protect Cabinet From Ambient Temperature Fluctuation.	No Change
			B)The System Should Have Positive, Forced, Air Circulation To Maintain Temperature Uniformity At All Shelf Levels, With Quick Recovery +/- 1 Degree C.	No Change
			C) The System Should Have Sensors For Activating Automatic Defrost Cycle To Minimize The Frost Build Up.	No Change
			D) The System Should Have Automatic Condensate Removal With No Requirement For Separate Drainage Lines.	No Change
			Internal Construction Should Be Made Up Of High Grade Stainless Steel (Min 22 G) External Construction Corrosion Resistant Sheet At Least I Mm Thickness.	No Change
			Internal Temp Control	No Change
			A)System Should Have Temperature Control Range From +1 Degree C To +8 Degree C.	No Change
			B)Temperature Control Resolution Should Be Better Than 0.1 Degree C.	No Change
			C)Cooling Down Time Of Max Of 150 Min On Half Load	No Change
			External Ambient Temp Should Perform In Ambient Temp Up To +43 Degree C.	No Change

			Door System Should Lockable Double Glass Doors For Better Safety	No Change
			Safety System:	No Change
			A. System Should Have Large And Clear Digital Displays For The Set/Run Parameters.	No Change
			B. The System Should Have Key Operated Set Point For The Added Security	No Change
			Alarms.	No Change
			System Should Have Audible/Visual Warnings For Over-Temperature Under Temperature And Power Failure With Visual Status Reports On Critical Functions.	No Change
			Should Have Adjustments For Uneven Bases. The Adjustments Should Be Easy To Use Like Rotating A Screw At The Legs In The Base.	No Change
			Scratch Resistant Internal Lining Of The Cabinet (Stainless Steel Or Aluminium)	No Change
			The Unit Shall Be Capable Of Being Stored Continuously In Ambient Temperature Of 0 -50 Deg C And Relative Humidity Of 15-90%	No Change
			The Unit Shall Be Capable Of Operating Continuously In Ambient Temperature Of 10 - 40Deg C And Relative Humidity Of 15-90%	No Change
			Power Input To Be 220-240Vac, 50Hz Fitted With Indian Plug	No Change
			Voltage Corrector/Stabilizer Of Appropriate Ratings Meeting Isi Specifications.(Input 160-260 V And Output 220-240 V And 50 Hz)	No Change
			Should Be CE/ USFDA approved product	Should Be CE/ USFDA/ISO 13485 approved product
			Manufacturer/Supplier Should Have ISO Certification For Quality Standards.	No Change

			Electrical Safety Conforms To Standards For Electrical Safety IEC standard	No Change
			Certificate Of Calibration And Inspection.	No Change
			Warranty- 3 Years	No Change
			Should be of 4 star/5 star rating	No Change
B	Sub total			No Change
III	Basic Cyto/Histo Path			No Change
19	Manual Microtome	1	Design Should Be Robust, Easy To Clean And Vibration Free	No Change
			Should Have Easily Removable Waste Tray	No Change
			Should Have Smooth And Light To Turn Hand Wheel	No Change
			Should Have Locking System Of Sample Holder At The Uppermost Position	No Change
			Should Have A Locking Lever To Lock The Hand Wheel At Any Position	No Change
			Should Have Easy Design To Reach Coarse Feed Wheel	No Change
			Should Have Slice Thickness Adjustment Knob And Display	No Change
			Section Thickness Feed To The Specimen From 0.5-60µm Of Better.	No Change
			Should Have Provision In Blade Holder For High And Low Profile Disposable Blade	No Change
			Should Have Precise Specimen Orientation Of 8° In X-Y With Anti-Tilt Feature	No Change
			Blade Holder Should Have Finger Safety Guard	No Change
			Specimen Retraction Facility In The Return Stroke And Can Be Turn On And Off.	No Change
			Section Counter Is Required.	No Change
			Should Have Section Thickness Indication By The Visual Display	No Change
			Should Have Hand Rest For Easy Sectioning	No Change
			Should Have User Selectable Coarse Feed Turn Direction Clock	No Change

			Or Counter. Clockwise For Manual Sectioning Only	
			Should Have Supplied With Disposable Blade Holder (Low Profile And High Profile - One), With Finger Guard Protection, Disposable Blades, Quick Release Clamp, Section Waste Tray, Dust Cover Microtome Oil As Standard Scope Of Supply.	No Change
			Should Have Quick Release Cassette Clamp And Universal Specimen Clamp	No Change
			Power Supply- 100-240Vac, 50-60Hz	No Change
			Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air.	No Change
			Manufacturer/Supplier Should Have ISO 13485 Certification For Quality Standards.	Manufacturer/Supplier Should Have ISO 13485
			Model should beUSFDA/European-CE (Issued by notified body)approved	Model should be USFDA/European-CE (Issued by notified body)/ISO 13485
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning.	No Change
			Warranty: 3 Years	No Change
20	Embedding Station	1	A State Of The Art Embedding System With Microprocessor Regulated Bench Top Tissue Embedding System With Touch Pad Control To Adjust The Wax-Dispensing Unit, Cooling, Heating And Pre-Warming Unit. Each Module Should Have Display And Independent Control	No Change
			The Paraffin Melting Reservoir Should Have Temperature Range Between 50 Oc To 70 Oc, Or Better With ± 1 Oc Steps. The Paraffin Reservoir Should Have At Least 3 Liters Or Better Capacity To Hold Melted Wax.	No Change

			Cold Plate Module Should Have Sufficient Space To Accommodate At Least 50-60 Blocks.	No Change
			Refrigerated Spot Should Be Integrated In Cold Plate For Tissue Orientation.	No Change
			Appropriate Cassette Bath Store.	No Change
			Mold Warmer And Work Surface Temperature Should Be Programmable In The Range Of 50 Oc To 70 Oc, Or Better With ± 1 Oc Steps.	No Change
			Modules For Cold Spot Should Have Temperature 4 Oc, While The Cold Plate Should Have -5 Oc Or Better.	No Change
			Each Module (Wax Reservoir, Heating Plate, Cold Spot, Cold Plate Etc.) Should Have Temperature Adjustment Via Touch Display Independently.	No Change
			Flow Of Wax From Reservoir Should Be Adjustable Using Foot Peddle Or By Knob.	No Change
			Embedding System Should Have Programmable Work Flow With Automatic Start Up And Switch Off Time.	No Change
			Forceps Warmer Along With 1Mm, 2Mm And 4Mm Tip.	No Change
			The System Should Be Equipped With All Accessories For Proper & Effective Functioning (Such As Power Supply Cords, Dust Cover, Stabilizer Etc.) Any Up- Gradation Of The System Accessories And Software Within A Year From The Time Of Installation Should Be Provided Free Of Cost.	No Change
			Supply 40 Kg Of Paraplast Tissue Embedding Grade And 40 Liter Of Histo-clear/ Xylene Free Clearing Reagent.	No Change
			Vibration Free Table For Accommodating The Embedding System.	No Change

			Staining Racks Ten In Number Lxwxh Mm (85X60X45) Of Glass Or Metal, With Wire Handle.	No Change
			Metal Base Molds At Least 60 In Numbers With Depression Of 7X7X5Mm Size.	No Change
			Embedding Cassettes 2000 Fitting On The Above Metal Base Molds.	No Change
			should be ISO 13485 certified	No Change
			Model should be USFDA/European-CE (Issued by notified body)/ISO13485 certified	No Change
			Warranty- 3 Years	No Change
21	Automated Tissue Processor	1	Should Be A Low Throughput Staining Machine For Multiple Staining Operations.	No Change
			Should Have Atleast 30 Or More Nos Of Slides Per Rack.	No Change
			Specimen Slide Throughput Should Be Atleast 150-200 Slides Per Hour.	No Change
			Should Have Load Capacity Of Atleast 60 Slides With Minimum 2 Loading Stations.	No Change
			Should Have Minimum 15 Reagent Stations And 3 Water Stations.	No Change
			Should Have Integrated 1 Drying Stations/ Oven With Temperature Settings From 40°C To 65°C Should Be Available.	No Change
			Minimum 2 Programs Should Be Available.	No Change
			Should Have Simultaneous Staining Of Various Different Staining Protocols.	No Change
			Continuous And Slow Agitation Facility Should Be Available.	No Change
			Gentle Vibration To Slide Rack During Lifting To Teducer Any Carry Over Contamination.	No Change
			Should Have Keypad Control For Programming And Setting The Parameters	No Change
			Should Have Continuous Loading And Unloading Of Slides Via Rack Entry And Exit Door.	No Change
			Programmable Up And Down Movement Of Robotic Arm.	No Change

			Should Have Fume Hood With Filter To Remove Hazardous Fumes.	No Change
			Timer For Adjusting Time For Each Station.	No Change
			Alarm System Should Be Available For Completion Of Each Program.	No Change
			Warning Alarm In Case Of Any Error During Operation.	No Change
			Ups Of Adequate Capacity To Be Provided If Required/ Should Have Inbuilt Battery Backup.	No Change
			Power Supply- 100-240Vac, 50-60Hz	No Change
			Model should be USFDA/European-CE (Issued by notified body)approved	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			General Terms:	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning ; If Desired By The End User	No Change
			Warranty- 3 Years	No Change
22	Hot Air oven	1	Specification: Table Top.	No Change
			Volume Capacity: Approximately 170 Litres.	No Change
			Temp: Ambient To More Than 250 Deg C.	No Change
			Display: Led/Lcd/Touchscreen Display With Temperature Monitoring.	No Change
			Inner Chamber: Stainless Steel, Grade 304.	No Change
			Number Of Shelves: 3.	No Change
			Tray: Chromium Plated Steel.	No Change
			Door Seal: Seasoned Silicon Rubber.	No Change
			Display Accuracy: $\leq \pm 5$ Deg C.	No Change
			Main Body: Electrogalvanised Steel With White Oven Baked Epoxy-Polyster Powder Coated Finish.	No Change
			Input Power Requirements: 230 Volts +/- 10% , 50 Hz.	No Change
			Electrical Power Consumption Should Not Exceed 3000 W.	No Change

			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning ; If Desired By The End User.	No Change
			Model should beUSFDA/European-CE (Issued by notified body)/ISO13485 certified	No Change
			Warranty :3 Years	No Change
23	Centrifuge	1	Max. Achievable Speed: Not Less Than 20000 Rpm And 32000 X G	No Change
			Noise Level: <60Db	No Change
			It Should Be With Brushless, Maintenance Free Drive Motor.	No Change
			Microprocessor Controlled Operation With Digital/LCD Display For Speed, Temperature And Time.	No Change
			Should Have Ability To Spin For A Time Of 1Min To 99 Min.	No Change
			Should Have Viewing Port In The Lid.	No Change
			Should Have Powered Lid Locking.	No Change
			Should Have Quick And Easy Operation With The Keypad	No Change
			Should Be Able To Store 4 Or More Programs.	No Change
			Rotors And Lids Should Be Autocleavable At 121°C For 20 Mins.	No Change
			Should Have Emergency Lid Lock Release Function.	No Change
			Should Provide Lid Dropping Protection.	No Change
			"Door Interlock" Safety Feature Is Essential.	No Change
			It Should Be Possible To Set Rpm As Well As Rcf.	No Change
			Should Have Imbalance Switch-Off Function.	No Change
			Automatic Rotor Recognition	No Change
			Parameters/ Programs To Be Changed With The Help Of Keypad.	No Change
			Easy Entry Of Parameters	No Change
			Rotor Should Be Aerosol Tight.	No Change
			Need rotor head of 24*15ml(with RPM of 4000 or More)	No Change

			Power Supply- 100-240Vac, 50-60Hz.	No Change
			Should meet ISO 13485 certification for quality standards	The Unit Should Comply With International Standard Like European CE/USFDA/ ISO 13485
			The Unit Should Comply With International Standard Like CE or USFDA	
			Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air.	No Change
			Should Perform Calibration,Validation(Once) & Preventive Maintenance (Twice) Of The Equipment Yearly During Warranty/ Service Period. Testing & Measuring Equipment Used Should Be Traceable To Si Units Through National /International Standards (As Per Nabl Norms).	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning.	No Change
			Local Service Support: Should Have Local Office And Service Support/Service Engineer For Attending The Breakdown Calls.	No Change
			Max. Achievable Speed: Not Less Than 20000 Rpm And 32000 X G	No Change
			warranty- 2 year	No Change
			Noise Level: <60Db	No Change
24	Cyto centrifuge	1	The Equipment Should Be A Bench-Top Centrifuge For Cytology Specimens And Should Be Capable Of Thin-Layer Cell Preparation For Retrieving Cells From Various Body Fluids And Preserving Their Morphology.	No Change
			Should Be Capable Of Processing Up To 12 Specimens At One Time.	No Change
			Should Be Provided With Standard Accessories Such As Cytoclips To Hold Reusable Sample Chamber Against Microscope Slides For Preperation.	No Change
			Clips Should Be Autoclavable And Reusable Of Ss.	No Change

			Should Be Resistant To Fluid Spillage On The Electronic Components With Capped Disposable Sample Compartments/ Chambers For Elimination Of Aerosol.	No Change
			Safety Alarms For Any Abnormal Operation Should Be Available.	No Change
			Microprocessor Based Controls And Programming For Time And Speed.	No Change
			Should Be Compliant With International Standards For Electrical Equipment Requirements For Laboratory Use.	No Change
			Power Input: Voltage Requirement: 220 V, 50Hz	No Change
			Rpm Should Be 200 To 2,000 Atleast.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning	No Change
			Model should be US-FDA/European-CE (Issued by notified body)/ISO13485 certified.	No Change
			Warranty :3 Years	No Change
25	Refrigerator 200 to 300 litre	2	Capacity Of Storage: 400 ltr	No Change
			Temp Range-Should Have Adjustable Temperature Control Range From +1 Degree To +8 Degree C, Factory Preset At 4 Degree C.	No Change
			Refrigerator System-	No Change
			A) The System Should Have High Density CFC –Free Urethane Foam Insulation To Protect Cabinet From Ambient Temperature Fluctuation.	No Change
			B)The System Should Have Positive, Forced, Air Circulation To Maintain Temperature Uniformity At All Shelf Levels, With Quick Recovery +/- 1 Degree C.	No Change
			C) The System Should Have Sensors For Activating Automatic Defrost Cycle To Minimize The Frost Build Up.	No Change

			D) The System Should Have Automatic Condensate Removal With No Requirement For Separate Drainage Lines.	No Change
			Internal Construction Should Be Made Up Of High Grade Stainless Steel (Min 22 G) External Construction Corrosion Resistant Sheet At Least 1 Mm Thickness.	No Change
			Internal Temp Control	No Change
			A) System Should Have Temperature Control Range From +1 Degree C To +8 Degree C.	No Change
			B) Temperature Control Resolution Should Be Better Than 0.1 Degree C.	No Change
			C)Cooling Down Time Of Max Of 150 Min On Half Load	No Change
			External Ambient Temp Should Perform In Ambient Temp Up To +43 Degree C.	No Change
			Door System Should Lockable Double Glass Doors For Better Safety	No Change
			Safety System:	No Change
			A. System Should Have Large And Clear Digital Displays For The Set/Run Parameters.	No Change
			B. The System Should Have Key Operated Set Point For The Added Security	No Change
			Alarms.	No Change
			System Should Have Audible/Visual Warnings For Over-Temperature Under Temperature And Power Failure With Visual Status Reports On Critical Functions.	No Change
			Should Have Adjustments For Uneven Bases. The Adjustments Should Be Easy To Use Like Rotating A Screw At The Legs In The Base.	No Change
			Scratch Resistant Internal Lining Of The Cabinet (Stainless Steel Or Aluminium)	No Change
			The Unit Shall Be Capable Of Being Stored Continuously In	No Change

			Ambient Temperature Of 0 -50 Deg C And Relative Humidity Of 15-90%	
			The Unit Shall Be Capable Of Operating Continuously In Ambient Temperature Of 10 - 40Deg C And Relative Humidity Of 15-90%	No Change
			Power Input To Be 220-240Vac, 50Hz Fitted With Indian Plug	No Change
			Voltage Corrector/Stabilizer Of Appropriate Ratings Meeting Isi Specifications.(Input 160-260 V And Output 220-240 V And 50 Hz)	No Change
			Equipment should be 4star/5star	No Change
			Manufacturer/Supplier Should Have ISO Certification For Quality Standards.	No Change
			Electrical Safety Conforms To Standards For Electrical Safety IEC standard	No Change
			Warranty- 3 Years	No Change
26	Slide fling cabinate	2	Should Have Convenient Storage And Retrieval Of Glass Slides.	No Change
			Should Have Constructed From Steel Material With High Durability.	No Change
			Should Be Stackable.	No Change
			Each Drawer Should Have A Back Stop	No Change
			Capacity Should Be 90,000 Slides In One Cabinet Having Multiple Drawer Filing Section	No Change
			Width Of Each Drawer/ Compartment Should Be 1 Inch(Minimum)	No Change
			Should Have Writable Socket/ Stripes On The Drawer For Labeling	No Change
			Drawers Of The Cabinet Should Be Lockable For Protection And Security With Key.	No Change
			Warranty: 3 Years	No Change
			Manufacturer should have ISO 13485	No Change
27	Block filing cabinate	2	Should Have Convenient Storage And Retrieval Of Paraffin Blocks	No Change

			Should Be Constructed From Stainless Steel With High Durability	No Change
			Should Be Stackable	No Change
			Each Drawer Should Have A Back Stop	No Change
			Each Cabinet Should Have 7 Drawers and Each Drawer Should Have Capacity Of 700 Blocks, Likewise Each Cabinet Should Have 7 Drawers Accomodating 4900 Blocks Of The Block.	No Change
			Width Of Each Drawer/ Compartment Should Be 1 Inch	No Change
			Should Have Writable Socket/Stripes On Drawer For Labelling.	No Change
			Drawers Of The Cabinet Should Be Lockable For Protection and Security With 1	No Change
			Master Key For All 35 Cabinets	No Change
			Multiple Models: If More Than One Model Is Offered, Then They Are To Be	No Change
			Separately Filled And Submitted According To The Given Format.	No Change
			Warranty-3 Year	No Change
			Manufacturer should have ISO 13485	No Change
29	PH meter	1	Bench top PH meter with two electrode and buffer.	No Change
			One electrode for measuring pH for reagents.	No Change
			One electrode for measuring PH for QC sample (min volume 500 micro litre to 1000 micro litre).	No Change
			3 point calibration is required(pH 4.0, 7.0 & 10.00)	No Change
			pH range from 0-14.	No Change
			Temp. range 0°C to 100°C	No Change
			Temp. display on screen as well as Ph reading.	No Change
			Calibration certificate to be provided.	No Change
			Automated Ph meter preferable.	No Change
			Performance certificate of IQ, OQ, PQ tests to be sub,itted at the time	No Change

30	Tissue floatation bath	1	of installation/ comissioning, if desired by the end user	
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warranty- 3 year	No Change
			Should Have A Rectangular Design With Atleast One Side Broad Enough To Keep The Glass Slide.	No Change
			Should Have A Capacity Of Minimum 2 Litres.	No Change
			Jet Black Inner Surface Of The Chamber With Removable Glass Tray And Illumination Light Source Which Provides Better Contrast To Identify Sections And Easy To Clean Surface.	No Change
			Electronic Temperature Control For Exact Temperature Regulation.	No Change
			Temperature Indication By Digital Display.	No Change
			Temperature Range : +30 To +80 Deg C.	No Change
			Temperature Should Be Adjustable By Membrane Keypad Which Should Be Less Sensitive To Water Spillage, Paraffin Contamination.	No Change
			Should Be Supplied With 2 Nos. Of Glass Trays As Standard.	No Change
			Should Have Place For Slide Draining / Drying.	No Change
			Should Have Illumination From The Side And Provide Exceptional Viewing Of The Tissue Sections.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning ; If Desired By The End User	No Change
			Electrical powerrequirements 220-230 Vac, 50-60Hz.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/ISO13485 certified	No Change
			Warranty :3 Years	No Change

31	Cooling plate	1	Should Be An Independent Cooling Plate With Temperature Range From Ambient To -10	No Change
			Should Be Able To Use As Independent Or With Tissue Embedding Station	No Change
			Should Have Digital Display Of Temperature	No Change
			Capacity To Keep At Least 100 Blocks At A Time.	No Change
			It Should Have Environment Friendly Refrigerant. Outer Body Must Be Made Up Of Ss304 Or Powder Coated To Prevent Rusting.	No Change
			Please Specify Footprint Size & Its Weight	No Change
			Power Supply- 100-240Vac, 50-60Hz.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/ISO13485 certified	No Change
			Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning.	No Change
			Warranty - 3 Years	No Change
32	Magnetic stirrer	1	Table Top Model, Ergonomic, Light Weight.	No Change
			Broad Speed Range.	No Change
			Silent, Durable Motor.	No Change
			Mixing Speed Control Range Rpm 100 To 1250.	No Change
			Maximum Stirring Volume (H ₂ O) In Litres-10.	No Change
			Temperature Setting Range : 30°C To 330°C	No Change
			Temperature Uniformity: ±3°C	No Change
			Working Plate Heating Time Till 11 Mins.	No Change
			Maximum Stirring Liquid Viscosity Mpa.S- Upto 1170	No Change
			Plate Diameter- 160Mm.	No Change
			Plate Material- Aluminium Alloy, Stainless Steel.	No Change

			Retort Stand Height- 320Mm.	No Change
			Length Of Magnetic Stirring Element- 20-70 Mm.	No Change
			Heating Power- 550W.	No Change
			External Power Supply Input- 120-230V Ac, 50-60 Hz.	No Change
			Nominal Operating Voltage- 120-230V, 50-60Hz Heating.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning .	No Change
			Electrical power requirements 220-230 V, 50-60Hz.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/ISO13485 certified	No Change
			Local Service Support: Should Have Local Office And Service Support/Service Engineer For Attending The Breakdown Calls.	No Change
			Response Time: Should Not Be More Than 12 Hrs. From Lodging A Breakdown Complaint On Toll Free Or By Email.	No Change
			Warranty :3 Years	No Change
33	Bone Saw Electrical	1	Should Be Completely Made Up Of Heavy Duty Stainless Steel Of SS 304	No Change
			Should Be Suitable For Cutting Of All Types Of Bones	No Change
			Cutting Speed Of Minimum 10Mm Per Second Or More	No Change
			Cut Height-250 To 300 Mm Or Better	No Change
			Cut Deepness-Minimum 160Mm Or Better	No Change
			Bone Pusher Portioning Plate And Blade Cover In Stainless Steel	No Change
			Smooth Surfaces Without Dirt Traps	No Change
			Detachable Waste Collecting Pan	No Change
			Removable Top Pulley And Blade Scraper	No Change
			High Speed Self Ventilating Motor Housing Of SS For Prolonged Operation	No Change

			Safety Device With Start, Emergency Stop And Safety Limit Switch And Low Tension Controls	No Change
			Blade Tensioning Automatic Adjustments	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning	No Change
			Electrical power requirements 220-230 V, 50-60Hz.	No Change
			Warranty-3 Years	No Change
			Model should be USFDA/European-CE (Issued by notified body)/ISO13485 certified	No Change
34	Bone decalcifier	1	Should have body made of Acid resistant material construction.	No Change
			Should have rotor Basket of at least 20-30 cassettes capacity	No Change
			Should have beaker capacity of minimum 2 litres or more decalcifier solution.	No Change
			Temperature range room temp to 40 deg or more	No Change
			Should have electric motor for agitation by rotational movement.	No Change
			Integrated Digital temperature controller.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Performance certificates of IQ,OQ,PQ tests to be submitted at the time of installation/commissioning; if desired by the end user.	No Change
			Specify pre installation requirements [electrical, HVAC, Compressed air (please specify required air pressure), water requirement (RO/DI/Distilled water with its pressure, flow rate per hour) ; if any of the above is essential]	No Change
			System should be operative, single phase, 220 V+/- 10% AC, 50 Hz.	No Change
			Warranty :3 years	No Change

35	Auto-stainer	1	Should Be A High Throughput Steiner	No Change
			Slide Rack Capacity Should Be 20 Or More.	No Change
			Should Have Various Staining Protocols.	No Change
			Should Have Minimum 20 Reagent Stations Including Minimum 3 Water Stations.	No Change
			Continuous And Slow Agitation Facility Should Be Available.	No Change
			Gentle Vibration To Slide Rack During Lifting To Reduce Any Carry Over Contamination.	No Change
			Minimum 3 Programs Should Be Available.	No Change
			Should Have Fume Hood With Filter To Remove Hazardous Fumes.	No Change
			Timer For Adjusting Time For Each Station.	No Change
			Alarm System Should Be Available For Completion Of Each Program.	No Change
			Warning Alarm In Case Of Any Error During Operation.	No Change
			Power Supply- 100-240Vac, 50-60Hz	No Change
			Model should be USFDA/European CE (Issued by notified body)/ISO13485 certified.	No Change
			Should Be Supplied With Standard Make Ups With Atleast 30 Mins Backup.	No Change
			Performance Certificates Of Iq,Oq,Pq Tests To Be Submitted At The Time Of Installation/Commissioning ;If Desired The End User.	No Change
			Should beoperative,singlephase,220V+-10% AC,50Hz.	No Change
			Warranty :3 Years	No Change
36	Grossing table	1	should have Right and left work stations	No Change
			Grid Plates should be provided	No Change
			working area should have drainage	No Change
			CENTRAL SINK	No Change

			should have Hydro-aspirator with reverse flow	No Change
			should have hot/ cold water fixtures	No Change
			fixtures should have wrist blade handles	No Change
			fixtures should have gooseneck faucet	No Change
			sink rinse with hose fittings and hose hanger should be provided	No Change
			vacuum breaker should be provided	No Change
			INSTRUMENT	No Change
			DRAWER	No Change
			under both workstations	No Change
			FLUORESCENT	No Change
			LIGHT	No Change
			over both workstations	No Change
			ELECTRICAL	No Change
			GFCI type 220/240 Volts AC 50 Hz	No Change
			DISPOSER UNIT	No Change
			should have Solenoid valve, Vacuum breaker, Water tight on/off switch, internal overload protector, motor ½ to ¾ HP	No Change
			FABRICATION	No Change
			Stainless Steel Type 304 with satin finish	No Change
			DIMENSIONS	No Change
			Length – 280-290 cm	No Change
			Width – 65-75 cm	No Change
			Height- 180-190 cm	No Change
			Power input to be 220-240VAC, 50Hz fitted with Indian plug	No Change
			Should be FDA, CE, UL or BIS approved product	No Change
			Comprehensive training for lab staff and support services till familiarity with the system	No Change
			Warranty 3 year	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
C	Sub total			No Change
IV	Image Diagnostics			No Change

37	X- ray 300 mA	1	X-Ray Generator :	No Change
			The high power R/F system should have high frequency (50000 pulses or more) inverter type generator.	No Change
			30kW or more High voltage generator with inverter	No Change
			frequency and Maximum output of 30kW or more..	No Change
			Radiographic kV range : 40-125 kV.	No Change
			Maximum mA : 300mA or higher.	No Change
			Radiographic exposure time range : 5msec to 1 Sec.	No Change
			LED readout for exposure parameter display.	No Change
			Microprocessor controlled with automatic exposure control.	No Change
			Two point radiographic technique – Selection of kV and mAs only.	No Change
			Anatomical programming up to 216 pre-programmed functions in which automatic selection of Technical Factors is done according to the Body part Selection for healthy and wider participation	No Change
			Radiographic table.	No Change
			5 Position manual operation patient table.	No Change
			Table tilt : (+) 90 degree – (-) 12 degree.	No Change
			Cassette / Film size : 8 × 10 inch, 14 × 17 inch, 12 × 15 inch.	No Change
			X-Ray Grid : 8:1, 100 lines/inch.	No Change
			Dual slot collimator.	No Change
			It should have a Bucky system which can accommodate standard radiographic cassettes.	No Change
			X-Ray Tube.	No Change
			Min 115 KHU – BHEL / Toshiba / Varian Tube.	No Change
			High speed rotating anode tube of 2700 rpm or better. For health and wider participation	No Change
			Short term rating – 20 kW / 40kW or better.	No Change
			HT Cable pair 8m or more.	No Change

			Accessories :	No Change
			Lead aprons, thyroid & pelvic guards with each unit.	No Change
			Both stand required.	No Change
			The unit should be provided with vertical Bucky.	No Change
			It should be provided with a removable GRID of 8:1 ratio (minimum) & focus distance of 180cm.	No Change
			Each unit to be provided with dark room tanks (4Nos), Safe light (One), Dryer (One), Hangers for X-ray films.	No Change
			Two sets of grid based high speed cassettes of 12" × 15", 10" × 12", 8" × 10" with one set of spare screens of each supplied cassette.	No Change
			Lead alphabets & numbers 3 sets.	No Change
			Lead partition 6" × 3" with lead glass window mounted on wheels.	No Change
			Power Requirements.	No Change
			3 Phase AC Supply, 50 Hz, Line Resistance $\leq 0.3 \Omega$.	No Change
			Power Consumption not more than 45 kVA.	No Change
			AERB type approval is mandatory.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Dual focal spot.	No Change
			warranty- 3 year	warranty- 3 year
38	Portable USG	1	Types Of Probes & Features	No Change
			Applications-Abdomen, Abdominal Vascular, Cardiac, Vascular Access And Lung	No Change
			High Density More Than 125 Element Probes In Convex, Tv & Linear	No Change
			Flat Linear Array	No Change
			Convex Array	No Change
			Transducer Temp-Detection	No Change
			Biplane Trans Rectal	No Change
			Biopsy Guide	No Change
			Scanning Depth	No Change
			Frame Per Second In B Mode	No Change
			Frame Per Second In Colour Mode	No Change

			Scan Modes	No Change
			Dual Imaging	No Change
			Quad Imaging	No Change
			Steer M Mode	No Change
			M Mode Colour	No Change
			Power Doppler	No Change
			Directional Power Doppler	No Change
			Pw	No Change
			Sample Volume	No Change
			Cw	No Change
			Hprf	No Change
			Tdi-Tissue Doppler Imaging	No Change
			Surface 3D Rendering	No Change
			Digital Beam Forming	No Change
			B-Steer	No Change
			Thi	No Change
			Duplex	No Change
			Triplex	No Change
			Speckle Reduction Imaging	No Change
			Compounding Imaging	No Change
			Imt-Internal Median Thickness Sw	No Change
			Autotrace & Measurement	No Change
			Panoramic Imaging	No Change
			Trapezoidal Imaging	No Change
			Gray Scale	No Change
			Real-Time And Frozen Zoom	No Change
			Dynamic Range	No Change
			Gain	No Change
			Imaging Display And Processing	No Change
			Monitor Type	No Change
			Monitor Size,Inch	No Change
			Backlit Keyboard	No Change
			Discom 3 Compliant	No Change
			Adjustable Transmin Focus	No Change
			Automated B-Mode (2-D) Image	No Change
			Grayscale Levels	No Change
			Image Magnification (Zoom)	No Change
			Real Time Image	No Change
			Frozen Image	No Change
			Transducer Socket	No Change
			Gel Warmer	No Change
			Dvd/Cd Writer	No Change
			Flash Memory	No Change
			Usb Connector	No Change
			"Facility For High Definition Digital Acquisition,Review And	No Change

			Editing Pf Complete Patient Studies.	
			Digital Storage Hard Drive Size	No Change
			Weight ,Kg (Lb) Without Trolley	No Change
			Type Of Processor	No Change
			Discom Interfacebility Dicom To Pacs	No Change
			Interfacebility Dicom To Ris	No Change
			Cart/Trolley From Oem With Gel & Transducer Holder	No Change
			Probe To Be Supplied With Unit As Follows-1 Cardiac Probe (1-5 Mhz With Scan Depth Upto 30 Cm And Capable Of Full Transthoracic Echo Imaging Including Tdi, Color And Spectral Doppler)2.Linear Probe (5-10 Mhz Scan Depth Upto 10 Cm)3.Linear Probe(6-13 Mhz For Vascular Access) With Small Profile And Capable Of Supporting Vascular Access/Lung Application 4.Convex Probe(205 Mhz For Abdominal, Deep Tissue, Biopsy etc With Scanning Depth Upto 30 Cms)	No Change
			USG System Supplied Should Be Upgradable To Next Generation System On Site	No Change
			Electrical power requirements 220-230 Vac, 50-60Hz	No Change
			should have 30minitues	No Change
			Miscellaneous Parameters	No Change
			User/Technical/Maintenance Manuals To Be Supplied In English In Hard And Soft Copy	No Change
			Demonstration Of Equipment And Training To Be Provided After Completing Supplies & Installation Before Acceptance	No Change
			The Principal Manufacturer Must Have Direct Presence/Approved Service Center In India	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty -3 Years	No Change
39	Mammaogram	1	Description Of Function	No Change

			Mammography System To Replace Conventional Film/Screen Based Mammography Studies With Digital Images Instant Reviewing And Analysis Capability With Stereotactic Biopsy Facility.	No Change
			Operational Requirements	No Change
			Full Digital Mammography System Consisting Of Exposure Stand With/ Iso centric "C" Attached Swivel System, Separate Console With Radiation Shield, Automatic Exposure Control And Mammography X-Ray Tube.	No Change
			An Integrated Direct-To-Digital Flat Detector Based On Amaorphous Silicon Technology.	No Change
			A Separate Workstation For Image Positioning And Patient Demographic Data Is Required.	No Change
			The Workstation Should Be Able To Send, Receive And Print According To Dicom Standards.	No Change
			The Workstation Should Also Be Able To Obtain Dicom Modality, Work List From Connected Information System And Send Information About Performed Procedure To The Connected Information System	No Change
			Read And Write In Cd/Dvd For Data Storage And Review.	No Change
			Technical Specifications	No Change
			Mammography System	No Change
			The System Should Cocnsist Of A Tube Head And Detector Assemblythat Has Isocentric Rotation For Every Positioning.	No Change
			The Iscentric Movements Should Be Motorized. The Patient Compresion Device should Have Automatic/ Motorized Multispeed / dualspeed Variable Compression System Which Senses The Breast Density And Adjust The Compression Force.	No Change
			The Maximum Compression Thickness Should Be 18 Cm Or	No Change

		More. The Patient Table Should Have Motorised Grid Movement.	
		Magnification Devices Of Ratio 1.5 And 1.8 Should Offered.	No Change
		Digital Display Of Compression Force And Compression Thickness Should Be Available.	No Change
		X-Ray Generator And Tube	No Change
		The X-Ray Generator Should Be High Frequency With The Following Parameters:	No Change
		Kv Range: At Least 25-35 Kv In Steps Of 1 Kv	No Change
		Mas Range: 0-750 Mas Or More	No Change
		Exposure Time: 0-700Ms	No Change
		Maximum Ma: 180Ma Or More	No Change
		X-Ray Tube Unit:	No Change
		Dual Focus Rotating Anode Tube With The Following Parameters:	No Change
		Focal Spot Size: 0.1Mm And 0.3Mm	No Change
		Anode Heat Storage: 150 Khu Or More	No Change
		Tube Heat Storage: 1.3Mhu Or More	No Change
		Anode Material: Molybdenum And Tungsten Preferred	No Change
		Please Mention The Filter Material Used In The Tube	No Change
		Flat Panel Detector:	No Change
		Type Of Detector: Amorphour Selenium /amorphour silicon Preferred	No Change
		Detector Size: 24Cmx29Cm Or More With Two Image Formats	No Change
		Pixel Size: 70µ Or Less	No Change
		Image Matrix In Pixels: Large Size- 3Kx 4K Or More Small Size: 2Kx 3K Or More	No Change
		Workstation For Image Acquisition:	No Change
		The Workstation Should Enable Immediate Image Display For General Survey For Patient Positioning. It Should Be Able To Store Around 10000 Images the Networking Should On Tcpip Protocol.	No Change

			The Following Image Processing Should Be Possible On The Workstation:	No Change
			Image Display:	No Change
			Freely Selectable Screen Layout	No Change
			Windows Settings (Contrast And Brightness Setting)	No Change
			Magnification, Stepped And Dynamic Zoom	No Change
			Image Inversion (Black/White)	No Change
			Annotation:	No Change
			Left/Right Marking	No Change
			Text Additions	No Change
			Lines	No Change
			Rectangles And Circles	No Change
			Measurements:	No Change
			Distance	No Change
			Angle	No Change
			Density	No Change
			Image Evaluation:	No Change
			Contrast Enhancement(With Table)	No Change
			Display Of Histogram	No Change
			Length Measurements	No Change
			Before /After Comparison	No Change
			Filter	No Change
			Administration:	No Change
			The Demographic Patient Data Should Be Retrieved Directly From A His/Ris System	No Change
			The Demographic Patient Data Can Be Entered Manually	No Change
			Retrieval Of Images From Cd, Dvd Or Pacs	No Change
			Printing Of Images On Dicom – Compatible Printers	No Change
			The Workstation Should Be Fully Dicom Compatible	No Change
			High Contrast 1Kx 1K Tft Monitor Should Be Provided With Workstation.	No Change
			Biopsy:	No Change
			Please Quote For Stereo Tactic Biopsy System Which Is Fully Compatible With Ffdm.	No Change

		A High Resolution Image Of 20 1P/Mm Should Be Possible With The Stereo Tactic Biopsy System.	No Change
		System Configuration Accessories, Spares And Consumables	No Change
		Mainframe System - 01	No Change
		X-Ray Tube Unit&Tube - 01	No Change
		Flat Panel Detector - 01	No Change
		Image Acquisition Workstation-01	No Change
		Stereotactic Biopsy System - 01	No Change
		Dicom Printer	No Change
		Archiving System - 01	No Change
		Environmental Factors	No Change
		The Unit Shall Be Capable Of Operating Continuously In Ambient Temperature Of 10C to 35C And Relative Humidity Of 80%	No Change
		Proper X-Ray Shielding Should Be Provided For The Main Equipment.	No Change
		Pre Requisites Should Be Clearly Spelt Out In Terms Of Mammography Room Requirements.	No Change
		Power Supply	No Change
		Suitable Power Input To Be 220-240Vac, 50Hz Or 440 V 3 Phase, Fitted With Indian Plug	No Change
		Resettable Overcurrent Breaker Shall Be Fitted For Protection	No Change
		Spike Protector Of Appropriate Rating Should Be Provided	No Change
		Standards And Safety	No Change
		Model should be USFDA/European-CE (Issued by notified body)/BIS approved.	No Change
		Electrical Safety Conforms To Standards For Electrical Safety Iec-60601 / Is-13450	No Change
		Safety Aspects Of Radiation Dosage Leakage Should Be Spelt Out	No Change
		Phantom For Calibration Should Be Provided.	No Change
		Warranty 3Years	No Change
		Should Comply With AERB Guidelines For Radiation Leakage	No Change

			Documentation	No Change
			User Manual In English	No Change
			Service Manual In English	No Change
			List Of Important Spare Parts And Accessories With Their Part Number And Costing.	No Change
			The Job Description Of The Hospital Technician And Company Service Engineer Should Be Clearly Spelt Out	No Change
D	Sub total			No Change
V	Major OT (3)			No Change
40	Aneasthesia workstaion	2	Durable With A Sturdy Kit.	No Change
			Antistatic Wheels With Brakes	No Change
			Shelves For Monitors	No Change
			The Anesthesia Workstation Should Have In Built Ventilator With Min. 7" TFT Display.	No Change
			Gas Delivery System:	No Change
			Gas Specific High Pressure Blocks.	No Change
			Non Inter changable Gas Supply Inlet For Cylinders With Step Down Regulators	No Change
			Pressure Reducing Valves.	No Change
			Color Coded Indexed Gas Supply Hoses.	No Change
			Provision Of Additional O2 Port For Powering A Ventury Device	No Change
			Provision For Manual As Well As Mechanical Ventilation.	No Change
			Provision For Both Open As Well As Closed Circuit.	No Change
			Provision For Attachement Of 2 Cylinders One Of O2 And N2O Cylinders.	No Change
			Provision To Monitor The Expired Gas Volume, O2 Monitor Sensor Probe Along With All The Tubings And Connections With Alarms.	No Change
			Ability To Monitor The Expired Tv/Minute Volume,Respiratoy Rate And Fio2	No Change
			Quick Change Over Form Open Circuit To Closed Cicuit And Vice Versa.	No Change
			Ability To Bypass The Soda Lime Canister And Convert To An Open Circuit.	No Change

		Provision For Emergency Flow Of 100% O2 Under High Pressure Through Both Circuits.	No Change
		Audible And Visual Alarms For Airway Pressure, Disconnection, Oxygen Failure.	No Change
		Flow Meters:	No Change
		For Oxygen, Nitrous Oxide And Air With Safety Feature	No Change
		Oxygen Failure Alarm, Audible And Visible	No Change
		Anti-Hypoxia Safety Mechanism To Ensure That O2	No Change
		Concentration Doesn'T Fall Below Minimum 25% At Any Time..	No Change
		Should Have Provision To Connect Two Selectatec Mount Vaporisers.	No Change
		Vaporiser Safety Lock.	No Change
		Vendor Should Provide Vaporisers- 2Nos (Isoflurane- 1No, Sevoflurane- 1 No)	No Change
		Ventilators:	No Change
		Ventilators For Controlled Ventilation Of Adults As Well As Children	No Change
		Volume Contorlled/Pressure Controlled/ Pressure Support.	No Change
		Inbuilt Peep Administration.	No Change
		Provision For Manual And Mechanical Ventilation	No Change
		Monitoring For Airway Prsesure- Peak And Peep	No Change
		Provision To Monitor Expired Gas Volume, O2 Monitor Sensor Probe Along With All The Tubings And Connections With Alarms.	No Change
		Ability To Monitor The Expired Tv/Minute Volume, Tidal Volume, Respiratoy Rate And Fio2	No Change
		Tidal Volume shouldrange from 20ml to1500ml	No Change
		Respiration Rate: 4-60 Bpm (Or More)	No Change
		Peep Setting: Upto 20 Cmh20	No Change
		Peak Pressure Setting Upto 50Cmh20	No Change
		Breathing System:	No Change

			Should Have Integrated Co2 Absorber With Easy Removal And Refitting During The Operation.	No Change
			Should Be Autoclavable At 134 Deg C.	No Change
			Should Have Apl Valve, Inspiratory Valve, Expiratory Valve.	No Change
			Should Have Mechanism To Prevent Moisture Condensation (Eg. Heating Circuit Or Equivalent)	No Change
			Should Work On Mains Power And With Battery Backup Of 45 Minutes Minimum With Fully Charged Batteries	No Change
			Accessories	No Change
			Should Provide All Standard Accessories	No Change
			Should Provide Co2 Absorber Canister - 2 Nos.	No Change
			Open And Closed Circuit For Both Adult And Pediatric	No Change
			Adult Breathing Circuit- 1 Nos.	No Change
			Pediatric Breathing Circuit -3 Nos.	No Change
			Face Mask Pediatric Complete Set- 3 Nos.	No Change
			Face Mask Adult Size 3 & 4- One Nos.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Warranty :3 Years	No Change
			Anesthesia machine should be 3 gas supply system (O2 ,N2O and air) with pipe line connection and reserve cylinder yokes	No Change
41	Cautery machine	4	Anesthesia machine should be 3 gas supply system (O2 ,N2O and air) with pipe line connection and reserve cylinder yokes	No Change
			Microcontroller Based Isolated Electrosurgical Generator Having Both Mono polar And Bipolar Outputs Designed For All Surgical Procedures.	No Change
			Smart Generator Should Be Able To Monitor Changes In Tissue	No Change

			Impedance Continuously And Adjusts Power.	
			Monopolar Outputs Should Have Three Cutting Modes:	No Change
			Low Cut For Delicate Tissue Or Laproscopic Cases	No Change
			Having Maximum Power Of 300 W or more	No Change
			Pure Cut For Clean, Precise Cut In General Surgery Having Maximum Power Of 200W	No Change
			Blend Mode For Cutting With Homeostasis Having Maximum Power Of 200W	No Change
			All Cut Modes Should Be Able To Adjust Output Power Depending	No Change
			On Tissue Density By Less Than 15% Or 5W, Whichever Is Greater.	No Change
			It Should Have Three Coag Modes With Maximum Power Of 120W	No Change
			A. Desiccate Mode For Low Voltage Contact Coagulation Suitable For Laproscopic And Delicate Tissue Work.	No Change
			B. Fulgurate Mode For Efficient Non-Contact Coagulation In Most Applications.	No Change
			C. Spray Mode Should Have Randomized Spray Effect Of Varying Amplitude And Frequency For Coagulating Large	No Change
			Tissue Areas With Minimum Depth Of Necrosis.	No Change
			It Should Have Three Bipolar Modes With Maximum Power Of 70W or more	No Change
			A. Precise Mode Have Fine Control Of Desiccation In Delicate Tissue.	No Change
			B. Standard Mode For Applications At Low Voltage To Prevent Sparking.	No Change
			C. Macro Mode For Applications On Tissue With High Resistance	No Change
			It Should Have Patient Plate Monitoring Facility And Should Give Audiovisual Alarm And Deactivate Output If Contact Between Patient And Patient Plate	No Change

			Is Not Proper To Eliminate The Risk Of Patient Burns.	
			The Unit Should Have Two Hand Switching And Two Footswitch Monopolar Outputs And One Hand Switching And Foots witching Bipolar Output.	No Change
			It Should Have Membrane Keyboard For Power Settings.	No Change
			The Unit Should Have Individual Digital Display Of Power For Bipolar, Monopolar Cut And Monopolar Coag.	No Change
			The Unit Should Not Have RF Leakage Current More Than 150Ma	No Change
			Accessories:-	No Change
			A. Monopolar Footswitch:- 02 No.	No Change
			B. Bipolar Footswitch:- 01 No.	No Change
			C. Reusable Hand Switching Pencil: - 02 Nos.	No Change
			D. Reusable Patient Plate : - 02Nos.	No Change
			E. Bipolar Forceps: - 01No.	No Change
			F. Forceps Cord:- 02Nos.	No Change
			G. Universal Adaptor: - 01No.	No Change
			Should have USFDA/European CE from notified	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			body. Should have IEC 60606-1-1/60606-1- 2/60606-2-2	No Change
			Operating And Service Manual Should Be Supplied.	No Change
			Operating Temp. Upto 40Deg. C;	No Change
			Warranty 3 Years	No Change
42	Cardiac monitor with AGM	2	Should Be High End Advanced Modular Hemodynamic Monitor To Measure All Vital Parameters Of Patients In Major And Minor Ots, Where Modules Can Be Separated And Should Be Interchangeable Across Ot, Icu And Recovery Room Monitors.	No Change
			Should Have Non Glaze Display With Wide Viewing Angle And High Resolution (Medical Grade) Touch Screen.	No Change

			Should Have Screen Size Of 12 Inches Or More	No Change
			Should Display Minimum 8 Waveforms Simultaneously	No Change
			Should Be Able To Used For Adult And Pediatric Application.	No Change
			Standard Server Should Include Ecg, Spo2, Nibp, Agm, Temp., Dual Ibp And Any Additional Parameters Pls Specify. Standard Server Should Be Removable From Main Monitor.	No Change
			Ecg: 5 Lead Ecg Should Be Standard. Should Detect Atleast 20 Different Types Of Arrhythmias.	No Change
			Spo2: Adult And Pediatric Mode Should Be Available With Monitor.	No Change
			Respiration: Through ECG Or Equivalent.	No Change
			Dual Ibp Should Be Standard With Monitor, Compatible Cable To Be Supplied As Standard.	No Change
			Should Measure And Display Pulse Pressure Variation Value (Ppv) As Standard.	No Change
			Should Have Knob Along With Touch Screen Option For Access And Input.	No Change
			Should Have Shelf Mount Facility, Accessories Required Should Be Supplied.	No Change
			Ability To Connect To Clinical Informatics Solutions, Hospital Network, Serial Interface, Printer And Should Be Hl7 Ready Etc. Vendor/Company Is Responsible For Integration With His.	No Change
			Audio/Visual Alarms With Priority Should Be Available.	No Change
			Equipment Should Be Able To Withstand The Temperature And Humidity Fluctuations In Case Of Failure Of Air Conditioning.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Standard Supply:	No Change

			Monitor With Standard Basic Server As Mentioned Above - 01 Nos	No Change
			Anesthesia Gas Module - 1 Nos Should Display O2, N2O, Co2 Parameters And Should Have Auto Detection Of Anesthetic Agents.	No Change
			Accessories Supply:	No Change
			Should Be Supplied With All Standard Accessories For Standard Server And Modules For All Abover Features/Parameters To Be Functional For Both Adult And Pediatric Applications With Standard Accessories With Each Monitor As:	No Change
			Standard Accessories:	No Change
			5 Lead Ecg Cable - One	No Change
			Peadiaric Nibp Cuff-One	No Change
			Adult Nibp Cuff - One	No Change
			Adult And Pediatric Spo2 Probe - One	No Change
			Ibp Cable - 2 Nos	No Change
			Nasopharangeal Temp Probe - One	No Change
			Agm Water Traps - 1 Box Per Module	No Change
			warranty 3 year	No Change
43	Patient warmer	2	Should Have Temperature Settings Range From 35Deg C To 40Deg C Or More That Allows To Select The Temperature Appropriate For Every Patient.	No Change
			Should Have Hose-End Temperature Control And High Air Flow Which Facilitate Consistent And Controlled Temperature Of Air Delivered Regardless Of Ambient Temperature.	No Change
			Should Have Following Alarms: Over Temperature, Under Temperature, And Disconnect/ Occlusion Alarm.	No Change
			Should Be Provided With Standard Accessories Such As Trolley, Adult Blankets, Etc.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change

			Warranty :3 Years	No Change
44	Blood fluid warmer	2	The System Should Deliver Normothermic Blood And Fluids At Routine.	No Change
			Should Have Both Audio And Visual Alarms, Actively Alerting The User If Adverse Conditions Occur.	No Change
			System Should Have Temperature Range Between 37°-39°C Or Better.	No Change
			Should Be Able To Withstand Temperature And Humidity Fluctuations In Case Of Failure Of Air Conditioning.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty :3 Years	No Change
45	ABG machine	1	Fully Automatic, Upgradeable, Fast Electrolyte & Blood Gas Analyzer.	No Change
			Essential Measured Parameters; Ph, Pco2, Po2, Hematocrit Lactate, Glucose, Na+, K+, Ca++. All These Parameters Should Be Measured Simultaneously	No Change
			Calculated Parameters Should Include Hemoglobin –Chgb, Actual Bicarbonate – Chco2, Total Carbon Dioxide – Ctco3, Base Excess Of Extra Cellular Fluid.- Be(Ecf), Base Excess In Blood -- Be(B), Oxygen Saturation – Cso2.	No Change
			Fast Analysis Time –Less Than 120 Sec.	No Change
			Fast Analysis Time – Less Than 60 Sec.	No Change
			Data Display Should Be On Well-Illuminated, Adequate Size Screen Display.	No Change
			Connectivity – Via Blue Tooth And Wifi For His And Lis .	No Change
			Data Storage For Atleast 1000 Patients.	No Change
			Calibration – Auto Calibration Before Every Sample Is Inserted.	No Change
			Operating The Machine- User Friendly Touch Screen.	No Change

			Ambient Working Temperature – 15 To 30 Degrees.	No Change
			Test Cards Storage – At Room Temperature	No Change
			Upgradeable To Future Parameters Like Cl-, Creatinine On The Same Card.	No Change
			System Should Come Along With A Windows Based Personal Digital Assistant To Control The Entire System & Printer.	No Change
			Stand By Blood Gas Cum Electrolyte Analyzer In Case Of Breakdown.	No Change
			Should Have Local Service Facility	No Change
			warranty-3 year	No Change
			Model should be USFDA/European-CE (Issued by notified body)approved	No Change
			Power 220-230Vac, 50Hz	No Change
46	PCA pump	2	The Unit Should Consists Of Ambulatory With A Patient Controlled Analgesia (PCA) Remote Dose Cord And Should Be Powered By Disposable Batteries.	No Change
			It Should Have Various Drug Delivery Modes Like, Continuous, Demand Dose, Clinician Bolus Etc.	No Change
			It Should Be Compatible To Be Used In Intravenous, Intra-Arterial, Subcutaneous, Intra peritoneal, Epidural And Intrathecal Delivery Routes.	No Change
			It Should Have Air In Line Detection Technology, Which Can Be Changed To Off/Low/High Sensitivity Depending On The Need Of The Department.	No Change
			It Should Offer Programmable Demand Dose Volume, Demand Dose Range Of 1-12 Demands/Hour Or More, With A Demand Dose Lockout Period Of 5Min-24 Hours Or More.	No Change
			Accuracy Level Should Be+ 6% Or Better.	No Change

			50Ml, 100Ml And 250Ml Medication Reservoirs That Should Be Compatible With The Pump.	No Change
			Infusion Pressure Should Be Of 40 Psi Or More.	No Change
			It Should Have Safety Alarms –	No Change
			Low Battery	No Change
			Depleted Battery	No Change
			Low Reservoir Volume	No Change
			Remote Dose Cord Removed	No Change
			High Delivery Pressure	No Change
			Medication Cassette Reservoir – 50Ml/100Ml	No Change
			Available In 50Ml And 100Ml Volumes	No Change
			Polypropylene Outer Casing	No Change
			Fluid Path Materials Made Of Medical Grade PVC Plastic	No Change
			Medication Cassette Reservoir – 250Ml	No Change
			Integrated Free-Flow Protection	No Change
			Polypropylene Outer Casing	No Change
			Fluid Path Materials Made Of Medical Grade PVC Plastic	No Change
			Administration Set	No Change
			Used With Cadd Medication Cassette Reservoirs	No Change
			Male Luer Connector With Integrated Anti-Syphon Valves	No Change
			Integrated 0.2 µ Filter	No Change
			Fluid Path Materials Made Of Medical Grade PVC Plastic	No Change
			Model should be USFDA/European-CE (Issued by notified body)/ISO13485 certified.	No Change
			Warranty: 3Years	No Change
47	Tourniquet machine	1	Should Be An Electronic Automatic Tourniquet.	No Change
			Should Have Facility To Use Single Cuff Tourniquet.	No Change
			Should Have Display For Actual Cuff Pressure, Set Pressure And Time.	No Change
			Should Be Possible To Increase And Decrease The Set Cuff Pressure Online	No Change

			Should Have Facility To Release Cuff Pressure Without Disconnecting The Cuffs From The Machine	No Change
			Should Have A Cuff Pressure From 100 To 400 mmHg Or Better	No Change
			Should Have A Timer Setting From 10 Minute To 3 Hours Or Better	No Change
			Should Have Audible And Visual Alarm For Pressure Increase And Decrease From The Set Value.	No Change
			Should Have Audible And Visual Alarm For Reaching The Set Time	No Change
			Should Be Supplied With Two Sets Of Good Quality Cuffs (Upperlimb-2, Lower Limb- 2) For Pediatric And Adult Size	No Change
			Unit Should Function With 200-240Vac, 50/60 Hz Input Power Supply.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty :3 Years	No Change
48	Portable suction machine	3	Should be fitted with oil immersed noiseless motorized vacuum pump.	No Change
			Cabinet made from stainless steel.	No Change
			Two glass jars on the top of having minimum capacity of 2 Ltrs fitted with rubber air tight lids and overflow safety device.	No Change
			Should be supplied with adequately long pressure tubing providing required pressure.	No Change
			Should have vacuum control by knob.	No Change
			Should be mounted on four caster wheels.	No Change
			Should have motor of 1/4 HP capacity and power consumption not more than 250 Watts.	No Change
			Should have vacuum at least between 100 mm Hg to at least 575 mm Hg (-75 KPa).	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty: 3 Years	No Change

49	Video laryngoscope	2	Should be handheld video laryngoscope with min 3 inches LCD/ LED monitor attached to handle for visualization of images in real time.	No Change
			Should have resolution of 640 * 480 or better	No Change
			Should have facility for image transfer through USB or any other port.	No Change
			Should have inbuilt rechargeable battery with capacity of min 2 hrs.	No Change
			Should have CMOS camera of at least 2 MP and with white LED light source for high performance visualization.	No Change
			Should be supplied with disposable blades.	No Change
			Blades should be supplied as sterile, vacuum packed which connects securely to the video laryngoscope handle with a lock.	No Change
			Should be light weight.	No Change
			Following different types of blades to be provided as per quantity mentioned below:	No Change
			Macintosh blade (MAC - 3) adult - 50 nos.	No Change
			Macintosh blade (MAC - 4) - 15 nos.	No Change
			Macintosh blade (MAC - 2) - 15 nos.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty-3 years	No Change
50	Micro drill saw system	1	It should be a multispecialty console with provision to attach multiple hand pieces such as Micro drill, Small bone Micro Saws, Micro debrider & Heavy Duty bone power tools, Bone mill etc.	No Change
			Should have the provision to attach 3 hand pieces simultaneously and should be able to select any one hand piece by a click of the footswitch.	No Change

			The console should have the provision to use 2 hand pieces simultaneously with two separate foot switches	No Change
			Power Supply should be 220-240V.	No Change
			It should identify different hand pieces with display on console It should be programmable as per surgeon preference, which can be saved	No Change
			It should have function of controlling brightness, contrast and alarms on the console	No Change
			It should have the option of controlling the speeds and features of the different types of hand pieces from the same unit.	No Change
			Console should offer change from variable/fixed mode, forward/reverse/oscillation mode.	No Change
			Integrated irrigation pump should be available for drill & saw system	No Change
			Should have option to save surgeon preferred setting inside the console with name	No Change
			Should have torque adjustment software to deliver desired torque as per surgeon preference	No Change
			Should be bi-directional footswitch with two pads	No Change
			Should have fully programmable footswitch as per user needs	No Change
			User should be able to control following functions via footswitch: Forward/Reverse/Oscillation, Increase/Decrease the speed, Enable/Disable the hand piece	No Change
			Should have identification marks for ease of use	No Change
			MICRO DRILL HANDPIECE – qty-1	No Change
			Should run at RPM up to 50000	No Change
			Weight of the handpiece should not be more than 150 gm. Should be made of durable material.	No Change
			Should have torque in range of 4.5-4.8 in oz.	No Change

			Sterilizable through steam/ ETO/flash autoclavable	No Change
			MICRO DRILL ATTACHMENTS	No Change
			Medium Straight attachment (Qty: 1)	No Change
			Medium Angled attachment (Qty: 1)	No Change
			MICRO SAWS:	No Change
			Sagittal Saw- Qty 01	No Change
			a) Should run at CPM of 25000 cpm	No Change
			b) Weight of the hand piece should not be more than 180 gm.	No Change
			Oscillating saw- Qty 01	No Change
			a) Should run at CPM of 20000 cpm	No Change
			Weight of the handpiece should not be more than 220 gm	No Change
			Reciprocating saw- Qty 01	No Change
			a) Should run at CPM of 14000 cpm	No Change
			Weight of the handpiece should not be more than 250 gm	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	Model should be USFDA/European-CE (Issued by notified body)/BIS/ISO 13485
			warranty- 3 year	No Change
51	Crash Cart	5	Technical Specifications will be as per s.n 89	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
E	Sub total			No Change
VI	Minor OT (1)			No Change
52	Cautery machine	1	Microcontroller Based Isolated Electrosurgical Generator Having Both Monopolar And Bipolar Outputs Designed For All Surgical Procedures.	No Change
			Smart Generator Should Be Able To Monitor Changes In Tissue Impedance Continuously And Adjusts Power.	No Change
			Monopolar Outputs Should Have Three Cutting Modes:	No Change
			Low Cut For Delicate Tissue Or Laproscopic Cases	No Change

			Having Maximum Power Of 300 W or more	No Change
			Pure Cut For Clean, Precise Cut In General Surgery Having Maximum Power Of 200W	No Change
			Blend Mode For Cutting With Homeostasis Having Maximum Power Of 200W	No Change
			All Cut Modes Should Be Able To Adjust Output Power Depending	No Change
			On Tissue Density By Less Than 15% Or 5W, Whichever Is Greater.	No Change
			It Should Have Three Coag Modes With Maximum Power Of 120W	No Change
			A. Desiccate Mode For Low Voltage Contact Coagulation Suitable For Laproscopic And Delicate Tissue Work.	No Change
			B. Fulgurate Mode For Efficient Non-Contact Coagulation In Most Applications.	No Change
			C. Spray Mode Should Have Randomized Spray Effect Of Varying Amplitude And Frequency For Coagulating Large	No Change
			Tissue Areas With Minimum Depth Of Necrosis.	No Change
			It Should Have Three Bipolar Modes With Maximum Power Of 70W or more	No Change
			A. Precise Mode Have Fine Control Of Desiccation In Delicate Tissue.	No Change
			B. Standard Mode For Applications At Low Voltage To Prevent Sparking.	No Change
			C. Macro Mode For Applications On Tissue With High Resistance	No Change
			It Should Have Patient Plate Monitoring Facility And Should Give Audiovisual Alarm And Deactivate Output If Contact Between Patient And Patient Plate Is Not Proper To Eliminate The Risk Of Patient Burns.	No Change
			The Unit Should Have Two Hand Switching And Two Footswitch Monopolar Outputs And One Hand	No Change

			Switching And Foots witching Bipolar Output.	
			It Should Have Membrane Keyboard For Power Settings.	No Change
			The Unit Should Have Individual Digital Display Of Power For Bipolar, Monopolar Cut And Monopolar Coag.	No Change
			The Unit Should Not Have Rf Leakage Current More Than 150Ma	No Change
			Accessories:-	No Change
			A. Monopolar Footswitch:- 02 No.	No Change
			B. Bipolar Footswitch:- 01 No.	No Change
			C. Reusable Hand Switching Pencil: - 02 Nos.	No Change
			D. Reusable Patient Plate : - 02Nos.	No Change
			E. Bipolar Forceps: - 01No.	No Change
			F. Forceps Cord:- 02Nos.	No Change
			G. Universal Adaptor: - 01No.	No Change
			Should have USFDA/European CE from notified body. Should have IEC 60606-1-1/60606-1-2/60606-2-2	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Operating And Service Manual Should Be Supplied.	No Change
			Operating Temp. Upto 40Deg. C;	No Change
			Warranty 3 Years	No Change
53	Multiparamonitor monitor	1	GENERAL DESCRIPTION	No Change
			Modular & Suitable for Adult/Paediatric monitoring	No Change
			Minimum 15 inches multicolor TET display screen	No Change
			Eight Channel digital and waveforms/ traces display	No Change
			Capability of storage of patient data and printing of patients report	No Change
			PARAMETERS	No Change
			Eight digital and waveforms/traces display	No Change
			Facility to monitor and display – ECG, Respiration, NIBP, SpO2, EtCO2, Temp. Dual IBP	No Change
			ECG	No Change
			Multichannel (up to 12 lead) ST segment analysis	No Change
			3 or 5 lead with cascade waveform facility.	No Change

		HR range 20-350 BPM	No Change
		HR/PR Source selection facility from Automatic,	No Change
		Spo2 IBP and NIBP.	No Change
		Automatic arrhythmia detection & alarm for standard & lethal arrhythmia	No Change
		standard & lethal arrhythmia	No Change
		PULSE OXYMETRY	No Change
		Nellcor or Masimo technology.	No Change
		Display of Plethysmograph with Pulse Strength	No Change
		indicator & SpO2 values & perfusion index.	No Change
		SpO2 Range – 1-100%	No Change
		PR Range – 20 to 230 BPM	No Change
		ETCO2 **	No Change
		Should be Main Stream capnography with display of CO2 and digital Values of EtCO2, FiCO2 & RR	No Change
		EtCO2 Range – 0-99 mmHg	No Change
		FiCO2 0 to 20 mmHg.	No Change
		Flow rate – 50ml/min	No Change
		Units – mmHg, KPA/Vol%	No Change
		NIBP	No Change
		Measurement and display of systolic diastolic and mean pressure values of NIBP measurement for adult ,child& neonate	No Change
		User selectable alarm settings,	No Change
		Mode : Manual, STAT (continuous 5 minute operation)	No Change
		and automatic (selectable time interval 2-90 minutes).	No Change
		Range 20-250 mmHg.	No Change
		TEMPERATURE	No Change
		Two channels and with two units (°c and °F) selectable	No Change
		Temp. Range – 0- 50 Deg C.	No Change
		Option for differential temperature should be provided.	No Change
		RESPIRATION	No Change
		RR range 1-150bpm,	No Change
		Sourced through ECG cable or CO2. Priority to co2.	No Change
		Apnea alarms should be provided.	No Change

		TRENDS & ALARMS	No Change
		72 Hrs. non-volatile graphical/tabular trends with	No Change
		zoom facility and separate dedicated trend for storing min 200 NIBP readings	No Change
		Should have multiple patient data storage facility	No Change
		Auto-setting of alarm limits depending on present	No Change
		patient condition for all the parameters	No Change
		Should have Alarm recall facility for last 24	No Change
		Alarm events with date, time and Message	No Change
		Should have facility to print Graphical trend,	No Change
		tabular trend and alarm recall.	No Change
		OTHERS	No Change
		Should work on Mains as well as battery (backup for 2Hrs.)	No Change
		Should have facility to download trend data on USB and SD Card.	No Change
		ACCESSORIES	No Change
		Lead ECG with clips – 2 sets	No Change
		NIBP Cuffs for Adult – 2, Child – 2 Nos.	No Change
		EtCO2 module with all accessories.	No Change
		Esophageal/Rectal Temperature probe – 2 Nos.	No Change
		skin temperature probe- 1 Nos.	No Change
		Dual IBP cable-2 Nos.	No Change
		Reusable SPO2 probes adult 2 Nos. and paediatric 2 Nos.	No Change
		ENVIRONMENTAL& DEPARTMENTAL CONSIDERATIONS	No Change
		The unit shall be capable of operating continuously in ambient temperature of 10-40 deg c and relative humidity of 15-90%	No Change
		The unit shall be capable of being stored continuously in ambient temperature of 0-50 deg C	No Change
		and relative humidity of 15-90%	No Change
		POWER SUPPLY	No Change

			Power input to be 220-240 VAC, 50Hz fitted with indian plug	No Change
			meeting ISI Specifications. (Input 160-260 V and output 220-240V and 50 Hz)	No Change
			STANDARDS, SAFETY & TRAINING	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Shall meet the safety requirements as per IEC	No Change
			Comprehensive warranty for 3 years and	No Change
54	Pedestal light	2	Should be a Mobile Surgical Light incorporating the latest LED technology only for Homogenous and shadow less operating light field.	No Change
			Should have mains cable and integrated ON/OFF switch on the light-head.	No Change
			It should have continuous height adjustment, weight balance in joint, no tilting, asymmetric stand, lockable castors.	No Change
			Should have Single Color LED's with lifetime of 50000 hrs or more.	No Change
			The mobile light should have the following specifications :	No Change
			Light Intensity 50000 lux or more	No Change
			should have LEDs in the light head	No Change
			Light Field diameter should be 20cm or better	No Change
			Fixed Color temperature 4300 K or more	No Change
			Color rendering index 95	No Change
			Depth of Illumination 110 cm or better	No Change
			Should be provided with unique sterilisable (autoclavable) handle - 2 nos	No Change
			Should have stable illumination through out the life period of the light.	No Change
			Model should be USFDA/European-CE (issued by	Model should be USFDA/European-CE (issued by notified body)/ISO 13485

			notified body)/ISO 13485 Accredited by NABCB/IAF	
			notified body)/BIS approved.	No Change
			Electrical power requirements 220-230 VAC, 50-60Hz .	No Change
			Warranty :3 years	No Change
55	Laryngoscope with all blades	2	Miller Blade	No Change
			Type: Conventional.	No Change
			Blade Type: Straight.	No Change
			Number of Blades: 7.	No Change
			Size of Blade: 000,00,0,1,2,3,4.	No Change
			Light Source: LED.	No Change
			Working Length: Good.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
56	Video Bronchoscope	1	Adult video bronchoscope	No Change
			Should have the facility of simultaneous suction and application of medication via removable suction valve.	No Change
			It should be high definition, waterproof, fully immersible for cleaning and disinfection and Sterilizable.	No Change
			Tip deflection should be 180 UP/130 Down deg or more.	No Change
			Angle of view should be more than or equal to 120 degrees.	No Change
			Working length should be more than or equal to 60 cm.	No Change
			Working channel diameter should be of size from 2.8 mm to 3.5mm.	No Change
			Outer diameter of the distal end should be of size from 5.8 mm to 6.5 mm.	No Change
			Insertion tube outer diameter should be of size from 5.8 mm to 6.4mm.	No Change
			It should include the standard accessories as Carrying case, leakage tester, bite protector, cleaning brush.	No Change
			Two or more no. of remote control switches on control body.	No Change

			Scope should be fiber less with CCD on tip, compatible with video processor.	No Change
			Pediatric video bronchoscope	No Change
			Should have the facility of simultaneous suction and application of medication via removable suction valve.	No Change
			It should be high definition, waterproof, fully immersible for cleaning and disinfection and Sterilizable.	No Change
			Tip deflection should be 180 UP/130 Down deg or more.	No Change
			Angle of view should be more than or equal to 120 degrees.	No Change
			Working length should be more than or equal to 60 cm.	No Change
			Working channel diameter should be of size from 1.2 to 2.2mm.	No Change
			Outer diameter of the distal end should be of size from 3.2 mm to 4.5 mm.	No Change
			Insertion tube outer diameter should be of size from 3.2 mm to 4.5mm.	No Change
			It should include the standard accessories as Carrying case, leakage tester, bite protector, cleaning brush.	No Change
			Two or more no. of remote control switches on control body.	No Change
			Scope should be fiber less with CCD on tip, compatible with video processor.	No Change
			Video OGD scope	No Change
			Should have the facility of simultaneous suction and application of medication via removable suction valve.	No Change
			It should be high definition, waterproof, fully immersible for cleaning and disinfection and Sterilizable.	No Change
			Tip deflection should be 210 UP/90 Down deg or more.	No Change

		Tip deflection should be Right/ Left 100deg or more.	No Change
		Angle of view should be more than or equal to 120 degrees.	No Change
		Working length should be more than or equal to 103 cm.	No Change
		Working channel diameter should be of size from 2.5 to 3.0mm.	No Change
		Outer diameter of the distal end should be of size from 9.0mm to 10 mm.	No Change
		Insertion tube outer diameter should be of size from 9.0mm to 10mm.	No Change
		Depth of field should be of size from 4-100mm or better.	No Change
		Direction of viewing should be forward Viewing	No Change
		It should include the standard accessories as Carrying case, leakage tester, bite protector, cleaning brush, Biopsy Forceps.	No Change
		Two or more no. of remote control switches on control body.	No Change
		Scope should be CCD on tip, compatible with video processor.	No Change
		Specs for video Processor	No Change
		Compatible with Analog and Digital (Y/C, RGB, COMPOSITE, DVI) to reproduce high definition (1080p/i) images / video.	No Change
		White balance adjustment should be available	No Change
		Colour adjustment (Red, Green, Blue) should be available	No Change
		Specs for Light Source	No Change
		It should be a 300W Xenon light source	No Change
		Lamp life should be 500hrs	No Change
		At least 24" Medical grade monitor to be provided with complete system for visualization.	No Change
		Image management and recording software with 1TB capacity (PC based or built in) to supplied, along with necessary hardware.	No Change
		Should be supplied with cart/trolley.	No Change

			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty: 3 years	No Change
			Electrical power requirements 220-230 V ac, 50-60Hz	No Change
F	Sub total			No Change
VII	Recovery (5 beds)			No Change
57	Bed side monitor	5	Bed side monitor should be portable and light weight and should monitor vital parameters of patients.	No Change
			Capability of storage of patient data and printing of patient reports.	No Change
			Capability to integrate with the HIS and transfer the data through LAN / Wireless LAN to any other monitoring room / doctors desk. Should be HL-7 compatible for transmitting and receiving data to/fro LAN/HIS(OPTIONAL)	No Change
			Portable and Light weight preferably <10kg	No Change
			Modular with 12 inch multi colour TFT display	No Change
			Monitoring parameters;- ECG, respiration, NIBP, SpO2 and temperature	No Change
			Digital and 6 waves / traces display	No Change
			Monitor should have audible and visual alarms capability. Alarms should have three distinct audible alarm tones to distinguish alarm levels as under. Also monitor should permit automatic viewing of alarming parameter waveform and numeric from any bedside in alarm as and when connected in a network.	No Change
			3. Should be upgradeable.	No Change
			Accessories	No Change
			ECG cables(5lead) -01Each monitor	No Change
			Adult NIBP Cuff - 01Each monitor	No Change
			Paediatric NIBP Cuff -01Each monitor	No Change

			Adult SPO2 probe -02Each monitor	No Change
			Skin Temp Probe -02Each monitor	No Change
			The unit shall be capable of operating continuously in ambient temperature of 10 -45 deg C and relative humidity of 15-90%	No Change
			Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electrical safety.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Manufacturer should have ISO certification for quality standards.	No Change
			power supply 220-30 VAC , 50HZ fitted with Indian plug	No Change
			warranty –3 year	No Change
58	laryngoscope for all blade	2	Miller Blade	No Change
			Type: Conventional.	No Change
			Blade Type: Straight.	No Change
			Number of Blades: 7.	No Change
			Size of Blade: 000,00,0,1,2,3,4.	No Change
			Light Source: LED.	No Change
			Working Length: Good.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
59	Nebulizer	2	Compact, light weight, low noise	No Change
			Durable long life compressor. Suitable for heavy duty/ institutional (hospital) use, should be able to run uninterruptedly for one hour, Max Press= 2.0-2.5 bars	No Change
			Should produce particle of size 1-5 micron	No Change
			should be Aluminum cabinet painted with epoxy powder	No Change
			Should be Piston-type electric aspirator that offers high performance and great durability.	No Change
			should be Protective thermal cut out relay	No Change
			Air delivery rate should be app.15 L/min.	No Change

			Able to 24 hours continuous work for hospital use	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	Model should be USFDA/European-CE (Issued by notified body)/BIS/ISO 13485
			Manufacturer should have ISO certification for quality standards.	No Change
			warranty 3 year	No Change
60	Cardiac table	5	Overall approx size of top should be 960 mm L x 420 mm W from handle to base (± 10 mm Engineering Variation)	No Change
			Top size is 810 mm x 355 mm. (± 10 mm Engineering Variation)	No Change
			M.S. Tubular telescopic stem made from MS CRCA sheet 2.0 mm (14 G) with hardened EN grade material gear and SS handle with HDP bush for grip for height adjustment from approx.: minimum 715 mm to maximum 1080 mm. (± 10 mm Engineering Variation)	No Change
			MS flat size 100 mm L x 50 mm W x 5 mm thick is welded at the bottom of the base at telescopic stem area for strength.	No Change
			Two sections top shall be fixed on frame work made from 19 mm Square ERW tube and MS HR flat 20 mm x 5 mm and 170 mm L x 50 mm W x 6 mm thickness. (± 10 mm Engineering Variation)	No Change
			Size of Fixed section is 200 mm x 355 mm. Size of adjustable section is 610 mm x 355 mm (± 10 mm Engineering Variation)	No Change
			Bigger section of the table top should be hinged & could be inclined to three raised position options. The raised position is achieved by three slot provided in MS flat size 265 mm x 6 mm and lever made from MS rod diameter 6 mm. The one end of the rod is covered with red colour PVC sleeve.	No Change

			PVC Extrusion on one side of bigger section.	No Change
			Railing S.S (304 grade) on small section covering three corner.	No Change
			Small section is mounted on the telescopic stem with help of MS "U" shape external size 120 mm x 96 mm x 6 mm with 19 mm square tube.	No Change
			Weighing bearing capacity should be 20 kg or more	No Change
			Base of the adjustable table made from M.S rectangular tube of size 60 mm x 30 mm x 1.6 mm and 40 mm x 20 mm x 1.6 mm and fitted with four castor wheel dia 50 mm without brake made from anti rusting material.	No Change
			Pre-treatment and powder coating should be an inhouse process of the manufacturer.	No Change
			Pre-treatment should be done with Zirconium coating	No Change
			Antimicrobial Epoxy Powder should be used. A test certificate should be enclosed	No Change
			Dry film thickness- minimum 50 micron	No Change
			A test report for impact test and dry film thickness by a NABL accredited lab	No Change
			Mandatory Standards and Conformations	No Change
			European CE, Central Drugs Standard Control Organisation registration, ISO 13485: 2016, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001: 2018	European CE/Central Drugs Standard Control Organization registration /ISO 13485
			Warranty: 3 years	No Change
G	Sub total			
VIII	IPD (50 beds)			
61	Ventilator	1	Should have facility for Invasive and Non-Invasive ventilation	No Change
			Microprocessor Control suitable for Adult and Pediatric ventilation;	No Change
			Should have modes of ventilation equipped with newer modes of ventilation:	No Change

		3.1) Assist/ Control	No Change
		3.2) Volume control	No Change
		3.3) Pressure control	No Change
		3.4) Pressure support	No Change
		3.5) SIMV with pressure support (Pressure and volume control)	No Change
		3.6) PEEP	No Change
		3.7) Inverse ratio Ventilation	No Change
		3.8) Noninvasive ventilation-BIPAP, CPAP	No Change
		3.9) Apnea ventilation, user selectable, volume & pressure control;	No Change
		Should have built in color screen TFT/LCD display of minimum 8''	No Change
		(inch) for display of waveforms and monitored value;	No Change
		Should have inbuilt facility to upgrade with EtcO2.	No Change
		Should have facility to measure and display of the following parameters:	No Change
		6.1) Airway Pressure (Peak & Mean)	No Change
		6.2) Tidal volume (Inspired & Expired)	No Change
		6.3) Minute volume (Inspired & Expired)	No Change
		6.4) Respiratory mechanics	No Change
		6.5) Spontaneous Minute Volume	No Change
		6.6) Total Frequency	No Change
		6.7) FiO2 dynamic	No Change
		6.8) Intrinsic PEEP	No Change
		6.9) Plateau Pressure	No Change
		6.10)Resistance& Compliance	No Change
		6.11)Use selector Alarms for all measured & monitored parameters	No Change
		6.12)Occlusion Pressure	No Change
		6.13)Pressure Flow & Volume curves;	No Change
		Automatic compliance and leakage compensation for circuit and ET tube;	No Change
		Should have facility of log book, for events and alarms with date & Time	No Change
		Should have following setting;	No Change

		9.1) Tidal volume(Minimum 20ml, Maximum up to2000ml); pre-setrange for both adult & pediatric modes tobe provided	No Change
		9.2) Inspiratory pressure (up to 80cm of H2O);	No Change
		9.3) Respiratory rate 1 to 80 bpm;	No Change
		9.4) Apnea back up rate;	No Change
		9.5) CPAP/PEEP;	No Change
		9.6) Pressure support;	No Change
		9.7) FiO2 setting range between 21% and 100%;	No Change
		9.8) Pause time;	No Change
		9.9) Pressure/flow Trigger; 9.10)Inspiratory flow up to 120 Lpm;	No Change
		Oxygen cylinder/central pipeline connector/(to be supplied along with machine) should be compatilble with ventilator	No Change
		Disposable Heat Moisture Exchanger, Qty 100 to be supplied with unit.	No Change
		User's interface: Manual and Automatic.	No Change
		Software and/or standard of communication(where ever required) :	No Change
		1) Inbuilt software;	No Change
		2) Convenient and quick USB interface;	No Change
		Configuration :	No Change
		1) Compatible hanged arm for holding the circuit;	No Change
		2) Should have caster with braking system;	No Change
		Noise (in dBA), heat dissipation :	No Change
		1) Noise of device operation max-50dbA;	No Change
		2) Should have audio visual alarm for battery low, source gas low and high/low pressure in the breathing circuit or source gas inlet;	No Change
		3) Should maintain nominal Temp of the control unit and the heat should be disbursed through an cooling mechanism;	No Change

		4) Alarm volume - min. 65dB	No Change
		Mobility, portability : Yes.	No Change
		ENERGY SOURCE (electricity, UPS)	No Change
		Power Requirements: Input voltage 220, VAC, 50Hz;	No Change
		Battery operated:	No Change
		1) Battery powered, silenceable alarm for power failure.	No Change
		2) Battery charger to be integral to mains power supply, and to charge battery during mains power operation of unit.	No Change
		3) Internal, replaceable, rechargeable battery allows operation for at least four hour in the event of power failure.	No Change
		Tolerance (to variations, shutdowns): Voltage corrector / stabilizer	No Change
		to allow operation at $\pm 10\%$ of 220V AC. Use of SMPS to correct voltage.	No Change
		Protection :	No Change
		1) Electrical protection, resettable over current breakers or replaceable fuses (fitted in both live and neutral lines);	No Change
		2) Leakage.	No Change
		Power consumption: To be declared by the supplier.	No Change
		ACCESSORIES, SPARE PARTS.	No Change
		Accessories & Spares : 1) Full face mask- 5 Nos each of 0,1 and 3	No Change
		2) Reusable breathing circuit of silicone material (5Nos) Disposable breathing circuit (50No.s)	No Change
		3) Air & oxygen hose- 1 each	No Change
		ENVIRONMENTAL AND DEPARTMENTAL	No Change
		CONSIDERATIONS.	No Change
		Atmosphere / Ambiance (air conditioning, humidity, dust ...) :	No Change
		1) Operating condition: Capable of operating continuously in ambient Temperature of 10 to 40 deg C and relative humidity of 15 to 90% in ideal circumstances.	No Change

			2) Storage condition: Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%.	No Change
			User's care, Cleaning, Disinfection & Sterility issues : Complete unit to be easily washable and serializable using alcohol and other	No Change
			Chemical agents.	No Change
			STANDARDS AND SAFETY.	
			Certifications :	No Change
			Model should be USFDA/European-CE (Issued by notified body)approved	No Change
			TRAINING AND INSTALLATION.	
			Training of staff (medical, paramedical, technicians):	No Change
			1) Training of users in operation and basic maintenance shall be provided;	No Change
			2) Advanced maintenance tasks required shall be documented	No Change
			WARRANTY AND MAINTENANCE	
			Warranty: 3 Years.	No Change
			Maintenance tasks:	
			1) Maintenance manual detailing;	No Change
			2) Complete maintenance schedule;	No Change
			Service contract clauses, including prices :	No Change
			1) The spare, accessories & consumables list required for maintenance and repairs in future after guarantee / warranty period should be attached;	No Change
			2) Free servicing during warranty period;	No Change
			DOCUMENTATION.	No Change
			Operating manuals, service manuals, other manuals : Should provide 2 sets(hardcopy) of:-	No Change
			1) User, technical, maintenance and service manuals to be supplied along with machine diagrams;	No Change

62	Bedside monitor	10	Technical Specifications will be as per s.n 57	No Change
			Bed side monitor should be portable and light weight and should monitor vital parameters of patients.	No Change
			Capability of storage of patient data and printing of patient reports.	No Change
			Capability to integrate with the HIS and transfer the	No Change
			data through LAN /Wireless LAN to any other monitoring room / doctors desk. Should be HL-7	No Change
			compatible for transmitting and receiving data to/fro	No Change
			LAN/HIS(OPTIONAL)	No Change
			Portable and Lightweight preferably<10kg	No Change
			Modular with 12inch multi colour TFT display	No Change
			Monitoring parameters;- ECG, respiration, NIBP, SP O2 and temperature	No Change
			Digital and 6 waves /traces display	No Change
			Monitor should have audible and visual alarms capability. Alarms should have three distinct audible	No Change
			Alarm tones to distinguish alarm levels as under. Also monitor should permit automatic viewing of alarming parameter wave form and numeric from	No Change
			any bedside in alarm as and when	No Change
			connected in a network.	No Change
			3. Should be upgradeable.	No Change
			Accessories	
			ECG cables(5lead) -01-for each monitor	No Change
			Adult NIBP Cuff -01 for each monitor	No Change
			Pediatric NIBP Cuff-01-for each monitor	No Change
			Adult SPO2 probe -02-for each monitor	No Change
			Skin Temp Probe -02-for each monitor	No Change
			The unit shall be Page 91 of 2capable of operating	No Change

			continuously in ambient temperature of 10 -45 deg C and relative humidity of15-90%	No Change
			Shall meet IEC-60601-1-2 :2001 (Or Equivalent BIS) General Requirements of Safety for Electrical	No Change
			safety.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Manufacturer should have ISO certification for quality standards.	No Change
			power supply 220-30VAC, 50HZ fitted with Indian plug	No Change
			Warranty 3 year	No Change
63	Laryngoscope with all blade	5	Technical Specifications will be as per s.n 55	No Change
			Miller Blade	No Change
			Type: Conventional.	No Change
			Blade Type: Straight.	No Change
			Number of Blades:7.	No Change
			Size of Blade:000,00,0,1,2,3,4.	No Change
			Light Source: LED.	No Change
			Working Length: Good.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warrenty-3 years	No Change
64	Nebulizer	10	Technical Specifications will be as per s.n 59	No Change
			Compact, lightweight, low noise	No Change
			Durable long life compressor. Suitable for heavy duty/institutional(hospital) use, should be able to run uninterruptedly for one hour, Max Press= 2.0-2.5 bars	No Change
			Should produce particle of size 1-5micron	No Change
			should be Aluminium cabinet painted with epoxy	No Change
			powder	No Change
			should be Piston-type electric aspirator that offers	No Change

			high performance and great durability.	No Change
			should be Protective thermal cut out relay	No Change
			Air delivery rate should be app.15L/min.	No Change
			Able to 24 hours continuous work for hospital use	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	Model should be USFDA/European-CE (Issued by notified body)/BIS approved /ISO 13485
			Manufacturer should have ISO certification for quality standards.	
			warranty 3 year	No Change
65	Patient warmer	4	Technical Specifications will be as per s.n 43	No Change
			Should Have Temperature Settings Range From	No Change
			35Deg C To 40DegC Or More That Allows To Select The Temperature Appropriate For Every Patient.	No Change
			Should Have Hose-End Temperature Control And High Air Flow Which Facilitate Consistent	No Change
			And Controlled Temperature Of Air Delivered Regardless Of Ambient Temperature.	No Change
			Should Have Following Alarms:Over Temperature,	No Change
			Under Temperature, And Disconnect/Occlusion Alarm.	No Change
			Should Be Provided With Standard	No Change
			Accessories Such As Trolley, Adult Blankets ,Etc.	No Change
			Model should be USFDA/European-CE (Issued by notified body)approved	No Change
			warranty 3 year	No Change
66	DVT Pump	2	The System should provide complete solution to meet all Intermittent Pneumatic Compression requirements.	No Change
			One pump should deliver uniform &/or sequential, Gradient and Circumferential Compression therapy options at the press of a button.	No Change

			The system cycle for leg sleeves compression is 12-14 second and foot cuff is 6 second. Decompression time is 48-52 second for leg sleeves and 24 second for foot sleeves	No Change
			The system should be compatible to 3 cuff/sleeves styles like knee length, thigh length and foot garment.	No Change
			Sleeve should be connected to system via single tube only, permanently fixed to the systems.	No Change
			The system should have auto sleeve recognition feature to automatically identify the type of sleeve connected and adjusts the compression therapy cycle accordingly	No Change
			When knee and/or thigh sequential garment is attached, system should deliver gradient sequential compression the pressures for leg sleeves at 45 mmHg for ankle chamber, 35 mmHg for mid chamber and 25 mmHg for thigh chamber. Chambers inflate sequentially from the ankle upward, and then deflate through two outlets at the top and bottom of the garment	No Change
			When foot garment is attached, system should deliver single pulse uniform foot compression at 130 mmHg	No Change
			When single chamber knee and or thigh length garment is attached, system should deliver single pulse uniform compression at 40 mmHg.	No Change
			The system should show real time pressure delivered in the sleeves	No Change
			The system should have Patient Hours Meter which on selection should show the total therapy time in hours.	No Change

			While in use, in case if one garment is accidentally get disconnected from pump, then after two inflation cycles, system should give visual alarm indication of display and after 10 inflation cycles, should give audio alarm indication also	No Change
			The system should have LCD display of minimum 8 cm (width) x minimum 5cm (Length) (approx.)	No Change
			Sleeve's construction should be lightweight mesh outer fabric helps prevent buildup of heat, to keep the patient's skin cool and dry. Cushioning interior fibers aid patient comfort. Soft and breathable inner fabric transfers heat and moisture away from the skin through small micro vents.	No Change
			Sleeves material should be certified at an accredited independent laboratory to assess heat, air and water vapour characteristics following internationally recognized test standards for 76.1% for Water Vapour Permeability WVP Index BS7209:1990 (1997), 5.6 score for Ret Water Vapour Resistance EN31092, 0.76 score for Thermal Resistance (TOG) BS4745	No Change
			For Calf and thigh length sleeves, for minimum 12 second in one minute, the sleeves' bottom air chamber should able to hold pressure of 45 mmHg, middle air chamber should able to hold pressure of 35 mmHg and top air chamber should able to hold pressure of 25 mmHg .	No Change
			For foot sleeve, for minimum 6 second in 30 second, the air chamber should able to hold pressure of 130 mmHg	No Change
			The pump should incorporate an internal battery pack, which is a secondary power source to back up the pump in the event of failure or disconnection accidentally or	No Change

			deliberately from the mains power supply.	
			The system power requirement is 100-240 VAC, 50 VA, 50/60 Hz	No Change
			Sequential calf sleeves up to 43cm circumference	No Change
			Sequential calf sleeves up to 58cm circumference	No Change
			Sequential thigh sleeves up to 71cm thigh circumference	No Change
			Sequential thigh sleeves up to 89cm thigh circumference	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty 3 years	No Change
H	Sub total			No Change
IX	HDU (5 Beds)			No Change
67	Ventilator	1	Should have facility for Invasive and Non-Invasive ventilation	No Change
			Microprocessor Control suitable for Adult and Pediatric ventilation;	No Change
			Should have modes of ventilation equipped with newer modes of ventilation:	No Change
			3.1) Assist/ Control	No Change
			3.2) Volume control	No Change
			3.3) Pressure control	No Change
			3.4) Pressure support	No Change
			3.5) SIMV with pressure support (Pressure and volume control)	No Change
			3.6) PEEP	No Change
			3.7) Inverse ratio Ventilation	No Change
			3.8) Noninvasive ventilation-BIPAP, CPAP	No Change
			3.9) Apnea ventilation, user selectable, volume & pressure control;	No Change
			Should have built in color screen TFT/LCD display of minimum 8''	No Change
			(inch) for display of waveforms and monitored value;	No Change
			Should have inbuilt facility to upgrade with EtcO2.	No Change
			Should have facility to measure and display of the following parameters:	No Change

		6.1) Airway Pressure (Peak & Mean)	No Change
		6.2) Tidal volume (Inspired & Expired)	No Change
		6.3) Minute volume (Inspired & Expired)	No Change
		6.4) Respiratory mechanics	No Change
		6.5) Spontaneous Minute Volume	No Change
		6.6) Total Frequency	No Change
		6.7) FiO2 dynamic	No Change
		6.8) Intrinsic PEEP	No Change
		6.9) Plateau Pressure	No Change
		6.10) Resistance & Compliance	No Change
		6.11) Use selector Alarms for all measured & monitored parameters	No Change
		6.12) Occlusion Pressure	No Change
		6.13) Pressure Flow & Volume curves;	No Change
		Automatic compliance and leakage compensation for circuit and ET tube;	No Change
		Should have facility of log book, for events and alarms with date & Time	No Change
		Should have following setting;	No Change
		9.1) Tidal volume (Minimum 20ml, Maximum up to 2000ml); pre-set range for both adult & pediatric modes to be provided	No Change
		9.2) Inspiratory pressure (up to 80cm of H2O);	No Change
		9.3) Respiratory rate 1 to 80 bpm;	No Change
		9.4) Apnea back up rate;	No Change
		9.5) CPAP/PEEP;	No Change
		9.6) Pressure support;	No Change
		9.7) FiO2 setting range between 21% and 100%;	No Change
		9.8) Pause time;	No Change
		9.9) Pressure/flow Trigger;	No Change
		9.10) Inspiratory flow up to 120 Lpm;	No Change
		Oxygen cylinder/central pipeline connector/(to be supplied along with machine) should be compatible with ventilator	No Change

			Disposable Heat Moisture Exchanger, Qty 100 to be supplied with unit.	No Change
			User's interface: Manual and Automatic.	No Change
			Software and/or standard of communication (where ever required) :	No Change
			1) Inbuilt software;	No Change
			2) Convenient and quick USB interface;	No Change
			Configuration :	No Change
			1) Compatible hanged arm for holding the circuit;	No Change
			2) Should have caster with braking system;	No Change
			Noise (in dBA), heat dissipation :	No Change
			1) Noise of device operation max-50dbA;	No Change
			2) Should have audio visual alarm for battery low, source gas low and high/low pressure in the breathing circuit or source gas inlet;	No Change
			3) Should maintain nominal Temp of the control unit and the heat should be disbursed through an cooling mechanism;	No Change
			4) Alarm volume - min. 65dB	No Change
			Mobility, portability : Yes.	No Change
			ENERGY SOURCE (electricity, UPS)	No Change
			Power Requirements: Input voltage 220, VAC, 50Hz;	No Change
			Battery operated:	No Change
			1) Battery powered, silence able alarm for power failure.	No Change
			2) Battery charger to be integral to mains power supply, and to charge battery during mains power operation of unit.	No Change
			3) Internal, replaceable, rechargeable battery allows operation for at least four hour in the event of power failure.	No Change
			Tolerance (to variations, shutdowns): Voltage corrector / stabilizer	No Change

		to allow operation at $\pm 10\%$ of 220V AC. Use of SMPS to correct voltage.	No Change
		Protection :	No Change
		1) Electrical protection, resettable over current breakers or replaceable fuses (fitted in both live and neutral lines);	No Change
		2) Leakage.	No Change
		Power consumption: To be declared by the supplier.	No Change
		ACCESSORIES, SPARE PARTS.	No Change
		Accessories & Spares : 1) Full face mask- 5 Nos each of 0,1 and 3	No Change
		2) Reusable breathing circuit of silicone material (5Nos) Disposable breathing circuit (50Nos)	No Change
		3) Air & oxygen hose- 1 each	No Change
		ENVIRONMENTAL AND DEPARTMENTAL	No Change
		CONSIDERATIONS.	No Change
		Atmosphere / Ambiance (air conditioning, humidity, dust ...) :	No Change
		1) Operating condition: Capable of operating continuously in ambient Temperature of 10 to 40 deg C and relative humidity of 15 to 90% in ideal circumstances.	No Change
		2) Storage condition: Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%.	No Change
		User's care, Cleaning, Disinfection & Sterility issues : Complete unit to be easily washable and serializable using alcohol and other	No Change
		Chemical agents.	No Change
		STANDARDS AND SAFETY.	No Change
		Certifications :	No Change
		Model should be USFDA/European-CE (Issued by notified body) approved	No Change
		TRAINING AND INSTALLATION.	No Change
		Training of staff (medical, paramedical, technicians):	No Change

			1) Training of users in operation and basic maintenance shall be provided;	No Change
			2) Advanced maintenance tasks required shall be documented	No Change
			WARRANTY AND MAINTENANCE	No Change
			Warranty: 2 Years.	No Change
			Maintenance tasks:	No Change
			1) Maintenance manual detailing;	No Change
			2) Complete maintenance schedule;	No Change
			Service contract clauses, including prices :	No Change
			1) The spare, accessories & consumables list required for maintenance and repairs in future after guarantee / warranty period should be attached;	No Change
			2) Free servicing during warranty period;	No Change
			DOCUMENTATION.	No Change
			Operating manuals, service manuals, other manuals : Should provide 2 sets(hardcopy) of:-	No Change
			1) User, technical, maintenance and service manuals to be supplied along with machine diagrams;	No Change
68	Laryngoscope for all blade	2	technical specifications will be same as s.n-55	No Change
			Miller Blade	No Change
			Type: Conventional.	No Change
			Blade Type: Straight.	No Change
			Number of Blades: 7.	No Change
			Size of Blade: 000, 00, 0, 1, 2, 3, 4.	No Change
			Light Source: LED.	No Change
			Working Length: Good.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warranty-3 years	No Change
69	DVT pump	1	technical specifications will be same as s.n-66	No Change
			The System should provide complete solution to meet all	No Change

			Intermittent Pneumatic Compression	
			requirements.	No Change
			One pump should deliver uniform &or sequential, Gradient and Circumferential	No Change
			Compression therapy options at the press of a button.	No Change
			The system cycle for leg sleeves compression is 12-	No Change
			14 second and foot cuff is 6 second.	No Change
			Decompression time is 48-52 second for leg sleeves and 24second for foot sleeves	No Change
			The system should be compatible to 3cuff/sleeves style like knee length, thigh length and foot garment.	No Change
			Sleeve should be connected to system via single tube only, permanently fixed to the systems.	No Change
			The system should have auto sleeve recognition feature to automatically identify the type of	No Change
			sleeve connected and adjusts the compression therapy cycle accordingly	No Change
			When knee and/or thigh sequential garment is attached, system should deliver gradient	No Change
			Sequential compression the pressures for leg sleeves at 45 mm Hg for ankle chamber, 35 mmHg for mid	No Change
			chamber and 25mmHg for thigh chamber. Chamber inflates sequentially from the ankle	No Change
			upward, and then deflate through two outlets at the top and bottom of the garment	No Change
			When foot garment is attached, system should deliver single pulse uniform foot compression at 130	No Change
			mmHg	No Change
			When single chamber knee and or thigh length garment is attached, system should deliver single pulse uniform compression at 40mmHg.	No Change

			The system should show real time pressure delivered in the sleeves	No Change
			The system should have Patient Hours Meter which on selection should show the total therapy time in hours.	No Change
			While in use, in case if one garment is accidentally get disconnected from pump, then after two	No Change
			inflation cycles, system should give visual alarm	No Change
			indication of display and after 10 inflation	No Change
			cycles, should give audio alarm indication also	No Change
			The system should have LCD display of minimum 8 cm(width) x minimum5cm (Length)(approx.)	No Change
			Sleeve;s construction should be light weight mesh outer fabric helps prevent buildup of heat, to keep the patient & skin cool and dry. Cushioninginterior fibers aid patient comfort. Soft	No Change
			and breathable inner fabric transfers heat and moisture away from the skin through small micro	No Change
			vents.	No Change
			Sleeves material should be certified at an accredited	No Change
			In dependent laboratory to assess heat, air and water	No Change
			Vap our characteristics following internationally	No Change
			recognized test standards for 76.1%for Water Vap our Permeability WVP Index BS7209:1990	No Change
			(1997), 5.6 score for Ret Water Vap our Resistance	No Change
			EN31092, 0.76 score for Thermal Resistance (TOG)	No Change
			BS4745	No Change
			For Calf and thigh length sleeves, for minimum 12 second in one minute, the sleeves & bottom air	No Change
			chamber should able to hold pressure of45 mmHg, middle air	No Change

			chamber should able to hold pressure	
			of 35 mmHg and to pair chamber should able to hold pressure of 25 mmHg .	No Change
			For foot sleeve, for minimum 6 second in 30 second, the air chamber should able to hold pressure of 130 mmHg	No Change
			The pump should incorporate an internal battery pack, which is a secondary power source to back up the pump in the event of failure or disconnection	No Change
			accidentally or deliberately from the mains power supply.	No Change
			The system power requirement is 100-240 VAC, 50 VA, 50/60 Hz	No Change
			Sequential calf sleeves up to 43cm circumference	No Change
			Sequential calf sleeves up to 58cm circumference	No Change
			Sequential thigh sleeves up to 71cm thigh circumference	No Change
			Sequential thigh sleeves up to 89cm thigh circumference	No Change
			Model should be USFDA/European- CE (Issued by notified body)/BIS approved	No Change
			warranty 3 year	No Change
70	B.P apparatus manual(adult)	2	technical specifications will be same as s.n-76	No Change
			Measuring device mechanical	No Change
			should be Portable	No Change
			should be Auscultatory method	No Change
			inflation should be manual	No Change
			deflation should be manual	No Change
			cut off range medium should be (22-32)cm.	No Change
			AA size chargeable battery set, Either Chargeable Battery Set .	No Change
71	Stethoscope	3	Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Listening to sounds from the heart, lungs, and/or gastrointestinal tract.	No Change
				No Change

			Stethoscope of standard size, chromium plated	No Change
			metal binaural, V rubber tube in one piece. Rotating piper fitting for both flip functions.	No Change
			Diaphragm approx:20 mm.	No Change
			1 x spare set of earpiece, 1 x sparediaphram	No Change
			Capable of being stored continuously in ambient	No Change
			temperature of 0 to50 deg C and relative humidity of15 to 90%. Capable of operating continuously in	No Change
			ambient temperature of 10 to 40 deg C and relative humidity of 15 to90%. cutt of range medium 22 to 32 cm	No Change
			Model should be USFDA/European CE (Issued by notified body)/ISO13485 approved	No Change
I	Sub total			
X	Emergency Bed (5)			
72	Multiparamonitor monitor	3		
73	Stretcher	10	Overall approx. size: 2020mm-2030mm L x 550mm-	No Change
			560mm W x 810mm-820mm H.	No Change
			Frame work should be of ERW tubular welded with vertical upright of 31.75mm OD×18G ERW tubes.	No Change
			Trolley should be provided with 200mm dia. Swivels castors wheels.	No Change
			All horizontal stays should be of 25.4mm OD x 18G tube.	No Change
			Stretcher should be made of SS304 18G sheet dished horizontally in the middle. Stretcher should be removable from trolley.	No Change
			Three additional 31.7 x 6mm flat supports that should be welded to main frame to support SS sheet top from	No Change
			underneath width wise.	No Change

			Pushing handle at both ends shall be made of 25.4mm x 18G SS tubes.	No Change
			FINISH: All components shall be thoroughly pre-treated chemically to remove rust and foreign matter like grease, oil etc. by dip tank processes, including separate Degreasing, Derusting, phosphating each followed by water rinsing and hot air drying to give phosphate coating conforming IS 3618-1966 Class 'C'. The treated metal surface should then be coated with epoxy polyester powder with paint film thickness of 60microns and oven baked at 180 and 200 centigrade. This finish should exclude stainless parts, some hardware, ebonite rubber, PVC, castor wheel if any.	No Change
			The company should have ISO 9001:2008 & ISO 13485 certification.	No Change
			All steel section should have powder coating.	No Change
			Pushing handles at both ends should be covered with PVC sleeves.	No Change
			Two section tops should be smooth edges and burr free.	No Change
			All SS used should be of 304 grade.	No Change
			Warranty- 1 year	No Change

74	Wheel chair	10	1. Overall approx size: 670mm W x 1120mm D x 920mm H. 2. Welded frame construction of round tubes. 3. Two solid rubber tyred bicycle wheels with brakes & self propelling stainless steel hoops. 4. Minimum frames size of round steel 22.2 x 18 G tubes and 19.05 x 18 G tubes. 5. Mild steel tubular construction fitted with cushion seat and back. 6. Wheel chair is fitted with minimum 24'' dia rim of bicycle wheel fitted on specially developed and heat treated axle with solid tyre in the rear. 7. In the front minimum 150mm dia castor wheels are fitted. In front of castor wheels, aluminum foot paddles are provided on adjustable brackets. 8. Two handles are provided with hand grips. Brakes are provided on rear wheel to hold the chair to stop in 5 degree ramp. 9. All mild steel components should be thoroughly pre-treated chemically to remove rust and foreign matter like grease, oil etc. by dip tank process pretreatment system. 10. The treated metal surface should have coating of epoxy polyester powder and oven baked at 180 degree to 200 degree centigrade to avoid contamination of the clean metal surface from dust particles.	No Change
			The company should have ISO 9001:2008 & ISO 13485 certification.	No Change
J	Sub total			No Change
XI	OPD (5)			No Change
75	B.P apparatus manual	1	technical specifications will be same as per s.n-76	No Change
			Measuring device mechanical	No Change
			should be Portable	No Change
			should be Auscultatory method	No Change
			inflation should be manual	No Change
			deflation should be manual	No Change
			cut off range medium should be(22-32)cm.	No Change

			AA size chargeable battery set, Either Chargeable Battery Set.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
76	Stethoscope (Adult)	2	Stethoscope should be standard size, chromium plated metal binaural, V rubber tube in one piece. Rotating piper fitting for both flip functions.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Warranty- 3 year	No Change
77	Colposcopy	1	Should be digital colposcope with 1-50X magnification minimum.	No Change
			Should have variable light intensity	No Change
			Should have features like facility to choose 5 color images, fast focusing, zooming and image freezing.	No Change
			Should have facility for green filter and blue filter	No Change
			Should have bright LED light for true color production and Color temperature 7000° k, average LED lamp life is > 20000 hrs	No Change
			Control panel has feather touch and water proof button	No Change
			Should have inbuilt live video recording with inbuilt recording facility of 1000 images	No Change
			USB foot switch for capturing and saving images	No Change
			Should have feature of comparison of reports, multiple formats of reporting should be available	No Change
			Should be supplied with remote control set to operate important functions from distance.	No Change
			Should be supplied with Image, Video & Patient Data Management Software with following features:	No Change
			Colposcopy, Auto analysis, Statistical data representation with graph, Marking and highlighting	No Change

			Hysteroscopy Including USB dongle and video Grabber Card.	
			Should be supplied with latest PC configuration (4GB/1TB/NO DVD/WIN10/WIRED+21.5" monitor) and inj Jet printer	No Change
			Model should be USFDA/ European CE (issued by notified body) approved.	No Change
			Warranty- 3 years	No Change
			Electrical power requirements 220-230 Vac, 50-60Hz	No Change
78	X-ray view box	10	single chamber	No Change
			Light frequency should be 50KHz	No Change
			thickness should be approx 4.5cm	No Change
			input voltage should be 220-230 VAC,50-60 Hz	No Change
			brightness should be 4000 lux	No Change
			Manufacturer should have ISO-13485 certification	No Change
79	Height Scale	5		No Change
K	Sub total			
XII	Day Care (25 beds)			
80	Bed side monitor	10	technical specifications will be same as per s.n-57	No Change
			Bed side monitor should be portable and light weight and should monitor vital parameters of patients.	No Change
			Capability of storage of patient data and printing of patient reports.	No Change
			Capability to integrate with the HIS and transfer the data through LAN /Wireless LAN to any other monitoring room / doctors desk.	No Change
			Should be HL-7 compatible for transmitting and receiving data to/from LAN/HIS (OPTIONAL)	No Change
			Portable and Lightweight preferably < 10kg	No Change
			Modular with 12 inch multi colour TFT display	No Change
			Monitoring parameters;- ECG, respiration, NIBP, Sp	No Change
			O2 and temperature	No Change
			Digital and 6 waves /traces display	No Change

			Monitor should have audible and visual	No Change
			alarms capability. Alarms should have	No Change
			three distinct audible alarm tones to distinguish alarm levels as under. Also monitor should	No Change
			permit automatic viewing of alarming parameter wave form and numeric from any bedside in alarm	No Change
			as and when connected in a network.	No Change
			3. Should be upgradeable.	No Change
			Accessories	No Change
			ECG cables(5lead) -01-for each monitor	No Change
			Adult NIBP Cuff -01 for each monitor	No Change
			Paediatric NIBP Cuff -01-for each monitor	No Change
			Adult SPO2 probe -02-for each monitor	No Change
			Skin Temp Probe -02-for each monitor	No Change
			The unit shall be capable of operating	No Change
			continuously in ambient temperature	No Change
			of 10 -45 deg C and relative humidity of15-90%	No Change
			Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of	No Change
			Safety for Electrical safety.	No Change
			Model should be USFDA/European- CE (Issued by notified body)/BIS approved	No Change
			Manufacturer should have ISO certification for quality standards.	No Change
			power supply 220-30VAC , 50HZ fitted with Indian plug	No Change
			Warranty 3 year	No Change
L	Sub total			
XIII	Blood Bank Storage Unit			
81	Blood Bank Refrigerator	2	Volume capacity approx : 400 ltr Standard Blood bags of 450 ml.	No Change

		It should be made from durable white epoxy painted/stainless steel finish SS304/SS316, these feature inner shelves made of SS304/SS316 using epoxy plastic coated steel rod.	No Change
		Set Temperature 4°C. Temperature Range: 2°C to 8°C, accuracy: $\pm 0.1^{\circ}\text{C}$, uniformity: $\pm 1^{\circ}\text{C}$.	No Change
		Refrigerator must have Positive forced-air circulation.	No Change
		Refrigerator must have hinged glass/ transparent double glazed glass doors with full length illumination (self-closing) with 90° stop to assist with inventory loads.	No Change
		Refrigerator must have Mercury-free LED interior lighting.	No Change
		Refrigerator must have a 1 minute door opening recovery of less than or equal to 4 minutes.	No Change
		Refrigerator must have standard set of four casters with brake option and installed in factory.	No Change
		Refrigerator must have adjustable cold and warm alarms. Refrigerator must have both audible and visual alarms indicating unsafe temperatures. Refrigerator must have door open alarm.	No Change
		Refrigerator must have a keyed on/off power switch	No Change
		Refrigerator must have service alarm and icon. Refrigerator must have low battery alarm	No Change
		Digital temperature Indicator with 7 days circular chart recorder with 100 additional charts. Digital temperature display (LED) with 0.1° C graduation on temperature recording device.	No Change
		The PT-100 sensor for control and display of accurate temperature recording. Addition port for placing central monitoring system sensor.	No Change
		Audio visual alarm for temperature variations and utility failure. Electrical circuit breaker. Overload	No Change

			cut off relay for compressor. Time delay for compressor switch on.	
			Electrical power requirements: 230 volts +/- 10%, 50 Hz. Equipment should meet standard for electrical safety.	No Change
			Refrigerator must be Energy Star rated and certified to the laboratory refrigeration standard	No Change
			Refrigerator must use environmentally friendly SNAP and EU F-Gas compliant HC refrigerants (Green Gas and Natural Gas) as per current Global Norms.	No Change
			Refrigerator must operate at less than or equal to 52 dba	No Change
			Inbuilt Battery Backup for control Panel during power failure for 48 Hours or more.	No Change
			Temperature holding time during power failure is 240 Minutes (4 hours) or better from 4° C to 10° C.	No Change
			Overall cool down time to +4° C should be faster than 50 Minutes.	No Change
			Heat-free defrost Technology for maximum uniformity to avoid Temperature fluctuation during Defrost cycle.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Unit should be Class 2 MDD certified from International Notified Body.	No Change
			Performance certificates of IQ,OQ,PQ tests to be submitted at the time of installation/commissioning.	No Change
			Should be supplied with standard make stabilizer.	No Change
82	Platelet Incubator with agitator	1	Warranty- 3 years	No Change
			Should have a provision to store the agitator.	No Change
			Should have a single transparent outer door for clear visibility.	No Change

			Should be able to maintain a temperature off $22 \pm 2^{\circ}\text{C}$, Set temperature of 22°C .	No Change
			Should have a digital temperature indicator.	No Change
			Seven day inkless chart recorder with battery back-up for minimum of 2 hours for continuous operation during power failure.	No Change
			Single digital temperature sensor for both recording and controlling	No Change
			Should have audible visual high/low alarm for temperature control, battery on/low, sensor failure, agitator off, power failure, compressor and system.	No Change
			Should have forced air circulation method for the uniformity of the temperature at all sides of the incubator.	No Change
			Chamber mounted electrical outlet for agitator should be available.	No Change
			Facility to connect with central (temperature) monitoring system.	No Change
			Platelet Agitator :	No Change
			Should have Internal body of SS304 grade	No Change
			Should have External body of corrosion resistant at least 1 mm thickness	No Change
			Should have the capacity to hold random platelet packs or SDP packs or a mixture of both type (Provision for storage of 96 to 100 RDPs or 25 to 30 SDP bags)	No Change
			Should have transparent door	No Change
			Design of shelves should have non-slip, corrosion resistant material, coated with bacteria resistant material, perforated to ensure air circulation and with sufficient clearance to minimize noise.	No Change
			Should have Gentle side to side agitation at 3.6 – 4 cm with side to side 60 – 70 stroke/ minute.	No Change
			Should have heavy duty ball bearing gear motor for noise less	No Change

			and continuous operation for 24 hours a day throughout the year.	
			Should have motor with internal fan.	No Change
			Should have 7-day chart recorder capability	No Change
			Should have temperature controller with sensor.	No Change
			Should have Non –CFC air cooled refrigeration.	No Change
			Should have audio alarm for temperature fluctuation.	No Change
			Should have auto stop function for agitation when the door is opened.	No Change
			Should have power failure alarm.	No Change
			Should have 'Push buttons switch' with pause function for temporary stoppage of the motion.	No Change
			Should provide free chart till warranty period	No Change
			Power supply- 100-240VAC, 50-60Hz.	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	Model should be USFDA/European-CE (Issued by notified body)/BIS/ISO 13485
			Should be able to withstand temperature and humidity fluctuations in case of failure of air.	No Change
			Performance certificates of IQ,OQ,PQ tests to be submitted at the time of installation/commissioning.	No Change
			Warranty: 3 years	No Change
M	Sub total			
	Common Equipment			
83	Weight Machine	5	Should be digital display	No Change
			Should be portable	No Change
			Weighing capacity should be min. 3kg or less and maximum 180kg or more	No Change
			Readability should be 0.05kg	No Change
			width should be 28-30cm (+/-2)	No Change
			length should be 28-30cm(+/-2)	No Change
			Depth should be 2-3 cm(+/-2)	No Change
			Warranty 3 year	No Change

			Manufacturer should be ISO certified for quality standards.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
84	Infusion pump	15	Comprehensive alarm system for following parameters or similar should be available:	No Change
			Occlusion,	No Change
			end of infusion,	No Change
			lock mode,	No Change
			air in line,	No Change
			door open,	No Change
			low battery,	No Change
			system malfunction, etc	No Change
			Intended for use on adult/pediatric.	No Change
			Easy dose rate calculation, easy loading and operation process.	No Change
			Should have drug library.	No Change
			Should have volume and drop control.	No Change
			Equipment should fit on IV stand, should be compact.	No Change
			Universal plugging system and should fit in the present electric board.	No Change
			Equipment should be compatible with all standard IV sets including paediatric IV sets	No Change
			Battery charging time should be less than 8 hours for depleted battery.	No Change
			Battery back up should be up to 4 hrs at 25 ml/hr	No Change
			Pole clamp material should be of metal or hard teflon.	No Change
			Should have drip sensor.	No Change
			Should have purge function.	No Change
			Infusion Volume limit should be upto 999.9ml	No Change
			Over all accuracy of flow should be $\pm 10\%$ or better.	No Change
			Should have bright LED/LCD display showing infusion parameters.	No Change
			Air bubble sensor should be available	No Change

			Equipment should be capable for preventing free flow and back flow.	No Change
			Should be light weight	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved	No Change
			Warranty :3 years	No Change
			Electrical power requirements 220-230 Vac, 50-60Hz	No Change
85	Pulse oxymeter	5	spo2	No Change
			measurement range should be 70%-100%	No Change
			Resolution should be 1%	No Change
			Pulse rate	No Change
			measurement range should be 30 - 235 bpm	No Change
			Resolution should be 1bpm	No Change
			Display	No Change
			should be Dual color OLED display	No Change
			parameters spo2,PR,PI	No Change
			Should be ISO /CE certified	No Change
86	Glucometer	5	The unit should automatically power ON when the strip is inserted in to the port.	No Change
			The Glucometer should guide the user by talking through the blood glucose testing steps.	No Change
			It should provide the test result on the LCD display in few seconds.	No Change
			Measuring range: 10 – 600 mg/dL with $\pm 2\%$ accuracy Blood Volume: not more than 1 -2 microliter	No Change
			A storage facility for not less than 300 test results with date and time should be available.	No Change
			Glucometer should be supplied with lancing device and universal needle set.	No Change
			ISO,CE Certificates for goods manufacturing	No Change
			Warranty 1 year	No Change
87	Portable suction	5		Model should be USFDA/European-CE (issued by notified body)/ISO 13485

88	Defibrillator	2	Defibrillator should be easy to use, having facility for AED (Automated External Defibrillation) and Manual mode defibrillation based on latest Biphasic technology.	No Change
			It should be able to deliver shock from 2 J to 200 Joules (or more) in Manual Mode and AED mode for pediatric & adult patient.	No Change
			It should have 5 Lead ECG Monitoring.	No Change
			Should have CPR Metronome for CPR assist during AED Mode operation.	No Change
			It should have 7 inch (or more) diagonal color LCD/TFT/LED screen facility to view color and black & white mode display in brighter sunny field environment.	No Change
			Should work on A.C. and D.C. and on latest rechargeable Lithium-Ion batteries with fully charged Battery capacity to monitor min 4 hours of operation and 100 (± 20) shocks of 200 Joules discharges.	No Change
			Should have inbuilt printer / recorder.	No Change
			Should have vital sign monitoring of SpO ₂ , NIBP.	No Change
			Should have facility for external pacemaker (with Demand and Fixed/Non demand mode) and Synchronous Cardioversion.	No Change
			Should supply along with standard accessories:	No Change
			Reusable Hard Paddles-1 Set, Multipurpose Electrode (AED cum Pacing Pads)-3 No.s Adult and 2 No.s Pediatric Pads, SpO ₂ Probe-1 Qty. Adult & 1 Qty. Pediatric, NIBP Hose & Cuff 1Qty. Adult & 1Qty. Pediatric along with Operating manuals.	No Change
			Quoted item should be USFDA/ European CE with 4 digit notified body approved and Manufacturer should be ISO 13485 certified	No Change

			Warranty :3 years	No Change
89	Crash cart	5	Overall Size: 1030 mm L x 595 mm W. • Platform Dimension (Top Polymer Molded Panel) -: 560 mm L X 370 mm W. • Height (Floor To Top Polymer Molded Panel) : 950 mm. • Maximum height (Floor to eye level detachable fully S.S top shelf) : 1610 mm. • Four Drawers with centralized locking. • Upper Drawer ABS tray: 560 mm L X 340 mm W X 65 mm H. • Middle Drawer ABS tray 2 nos : 560 mm L X 340 mm W X 145 mm H. • Cardiac Massage Board: 710 mm X 390 mm X 6 mm thick. • Lower Drawer ABS tray : 550 mmx 330 mm x 230 mm. • Poly Carbonate Partition plates for top and second drawer. • Integrated with Chart / File holder, 2 nos of Catheter Holder, 1 no of Trash bin. • Crash cart mounted on twin wheel 125 mm dia non-rusting castor two with brakes and two without. Castor made from high grade non floor-staining synthetic materials with integrated thread guards. Wheel centre having precision ball bearing to run smoothly • Base structure provided with rubber buffer, one on either sides. • Frame work is made from tube size: 25.4 mm x 1.2 mm (18 G). • Pull out cardiac massage board made of MDF of minimum size 710 mm x 390 mm x 6 mm laminated on top and bottom of laminate of 1 mm and 0.6 mm respectively. MDF shall have water resistance property and it should be made from ecofriendly material. • Safe Working Load & Patient bearing capacity - 50 kg. • Oxygen cylinder stand epoxy powder coated, on one side. • All stainless steel wherever used should be 304 grade. S.S parts finished with Matt Polish.	Model should be USFDA/European-CE (issued by notified body)/ISO 13485 for crash cart, other parameters will remain be same.

			. • M.S. tubular parts, linkages, flats aluminum base are to be In-house, pretreated / shot blasted and Epoxy powder coated with coating thickness 50 to 100 microns. • All Process Parameters to be as per documented IMS Procedures for Quality Assurance (ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 & ISO 13485:2003 Quality Management System Company should be European CE Certified. Dealers participating should enclose certificate from their Parent manufacturer company. • Cardiac Massage Board: 710 mm X 390 mm X 6 mm thick. • Defib tray holder platform of 300 mm X 200 mm. • S.S detachable top shelves one without lid and one with 5 polycarbonate partition and cover lid at eye level. • Poly Carbonate Partition plates. • Scissor Holder • I.V Rod S.S with two hooks	No Change
			Warranty :-3 years	No Change
90	Syringe pump	15	Should have flow rate range from 0.1 to 500 ml/hr. depending on syringe capacity.	No Change
			Should have purge and bolus facility.	No Change
			Should have occlusion pressure detection.	No Change
			Should have rechargeable Battery with backup of at least 4 hours from fully charged	No Change
			Battery capacity indicator.	No Change
			Should have various Alarms such as near empty, end, occlusion, low battery, etc.	No Change
			Volume Infused Display	No Change
			Should be portable and easy to carry.	No Change
			Should be provided with pole clamp to fix on IV stand.	No Change
			Should perform yearly calibration and preventive maintenance (2nos) during warranty & if entered into	No Change

			AMC (includes unlimited breakdown calls) /CMC (which will include spare replacement, consumable spares, breakdown calls) Testing & measuring equipment used should be traceable to SI units through National/international standards (As per NABH norms). To submit SOPs for PMS at the time of installation/ commissioning.	
			Please specify footprint size & weight	No Change
			Should Be CE or USFDA Approved Product.	No Change
			Please specify power consumption.	No Change
			Local Service Support: Should have local office and service support/service engineer for attending the breakdown calls.	No Change
			Response Time: Should not be more than 12hrs from lodging a breakdown complaint on toll free or by email.	No Change
			Warranty: 2 years	Warranty: 3 years
91	BIPAP	2	Operational Requirements	No Change
			The system should meet all the numerical values given in the technical specifications within a tolerance of +/- 10 %.	No Change
			IPAP 4 to 30 cm	No Change
			2. EPAP 4 to 25 cm	No Change
			3. Breach rate 0 to 30 BPM with spontaneous for time mode	No Change
			4. Timed inspiration 0.5 to 3.0 sec	No Change
			5. Rise Time 100 to 600 msec	No Change
			6. Machine should be based on the solenoid valve technology and should offer preferably auto track sensitivity and adjustable risetime.	No Change
			7 System Configuration Accessories, spares and consumables	No Change
			System should be supplied with all reusable accessories	No Change
			Environmental factors	No Change
			The unit shall be capable of operating continuously in ambient	No Change

			temperature of 20-30 deg C and relative humidity of 15-90%	
			The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%	No Change
			Power Supply	No Change
			Power input to be 220-240VAC, 50Hz	No Change
			Standards, Safety and Training	No Change
			Model should be USFDA/European-CE (Issued by notified body)approved	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warranty-3 years	No Change
			Manufacturer should have ISO certification for quality standards.	No Change
			Documentation	No Change
			User/Technical/Maintenance manuals to be supplied in English.	No Change
			List of Equipment available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.	No Change
			Certificate of calibration and inspection.	No Change
			Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.	No Change
			Mode of operation CPAP, S, ST,PS,T	No Change
92	ECG machine(12-Channel)	3	Description of function	No Change
			ECG Machine is primary equipment to record ECG Signal in various configuration. 12 channels with interpretation is required for recording and analyzing the waveforms with a special software.	No Change
			operational requirements	No Change
			The ECG Machine should be able to acquire all 12 Leads simultaneously and interpret them	No Change

			Should acquire simultaneous 12 lead ECG for both adult and pediatric patients	No Change
			Should have Real time Colour display of ECG waveforms with signal quality indication for each lead	No Change
			Should have ArtIAFct, AC, and low and high pass frequency filters.	No Change
			Should have a storage memory of at least 100 ECGs with easy transfer by optional modem and data card.	No Change
			Should have full screen preview of ECG report for quality assessment checks prior to print.	No Change
			Should have interpretation facility of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for adult and pediatric patients	No Change
			Should have alphanumeric Keyboard for patient data Entry.(virtual or hard keys)	No Change
			Should have High resolution (200 dpix500dpi on 25 mm/sec speed) digital array A4 size printer	No Change
			Should have report formats of 3 x4; 6 x2, Rhythm for up to 12 selected leads; 12 Lead Extended measurements, 1 minute of continuous waveform data for 1 selected lead.	No Change
			Should have battery capacity of at least 30 ECGs or 30 minutes of continuous rhythm recording on single charge	No Change
			Should be able to be connected to HIS /LAN/Wireless LAN (OPTIONAL)	No Change
			Should display ECG on LCD/TFT Display of 640x480 pixel resolution.	No Change
			USB Support for Storage on external portable memories.	No Change
			“Multimode of ECG Storage capability on USB pen drive, 1500ECG on Internal Memory”	No Change

			System Configuration Accessories, spares and consumables	No Change
			Patient Cable -01each ECG machine	No Change
			Chest Electrodes Adult-(set of six) -01sets each ECG	No Change
			Chest Electrodes Paediatric-(set of six) -01sets Each	No Change
			ECG	No Change
			Limb Electrodes (set of 4)- 01 sets Each ECG	No Change
			Thermal Paper A4 Size for 500 patients	No Change
			Environmental factors	No Change
			The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%	No Change
			The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%	No Change
			Power Supply	No Change
			Power input to be 220-240VAC, 50Hz	No Change
			Standards, Safety and Training	No Change
			Model should be USFDA/European-CE (Issued by notified body)/BIS approved.	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Documentation	No Change
			Warranty-3 years	No Change
			User Manual in English	No Change
93	CR system	1	Radiography System To Replace Conventional Film/Screen Based X- Ray Processing Techniques With Photostimulable Phosphor Plate Technology To Obtain Digital X-Ray Images.	No Change
			Operational Requirements	No Change
			System Configuration	No Change
			Computed Radiology Must Be A State Of The Art System Manufactured By A Reputed Brand Or Manufacturer Adhering To Following Specifications. Cr System Should Broadly Comprise Of Following Modules/ Components.	No Change

		I. Image Reading System (Reader/ Digitizer)	No Change
		Ii. Image Processing Workstation	No Change
		Iii. Dry Image Printer (Film Printer) And Other Standard Accessories Listed Below.	No Change
		Technical Specifications	No Change
		The System Shall Be Able To Record X-Ray Images On Imaging Plates (Ip).	No Change
		Operationally And Functionally Equivalent To And Better Than The Present Film Based System.	No Change
		Must Record Patient Identification Data And Anotation On The Image.	No Change
		Retrieve And Reproduce Accurate, High Quality High Resolution Images From Stored Data Without Loss Of Image Quality.	No Change
		Shall Have Read And Write Facility In Cd/Dvd For Data Storage And Review.	No Change
		Image Reader (Cr Reader/ Digitizer)	No Change
		Should Have Automatic Scanning Mechanism To Read, Erase And Process The Images From The Imaging Plate. (Ip)	No Change
		The Cr Reader / Digitizer Should Be Able To Process 60 Image Plates/Hr Or More Of 14X17 Inch Size.	No Change
		Gray Scale Resolution: Cr Reader / Digitizer Should Have A Minimum Resolution Of 12Bits/ Pixel For Images Sent To Cr Processing Station.	No Change
		Mechanism For Accepting Exposed Imaging Plates Without Patient Demographics, For Hospital Workflow Requirement.	No Change
		Mechanism For Re-Routing The Newly Acquired Images To The Preconfigured Cr Workstation.	No Change
		Capability Of Retrieving (Service Intervention) At Least Last 10 Scanned Images, As Part Of Contingency Plan.	No Change

		Cr Workstation:	No Change
		Accept Images Form Cr Reader Without Any Loss Of Data.	No Change
		Capable Of Archiving & Printing Selected Image To A Standard Dicom Destination.	No Change
		Multi-Function Console With Quality Assurance (Main Workstation)	No Change
		High Resolution 17" Or More Lcd Monitor	No Change
		Image Manipulation/Post Processing Software.	No Change
		Multi Patient Viewing And Printing	No Change
		Pip (Picture In Picture) Option For Viewing Each Part In A Conventional Way.	No Change
		Exporting Images In Bmp, Jpeg, And Avi Formats On Dicom & Non-Dicom.	No Change
		Cd/Dvd Burning Facility.	No Change
		Should Have Following Special Features On Work Station Software	No Change
		A. Image Post Processing	No Change
		B.Windows Leveling	No Change
		C. Annotation	No Change
		D.Area Of Interest Zoom	No Change
		E.Magnification	No Change
		F. Flipping & Panning	No Change
		G. Automatic Exposure Correction	No Change
		H.Pre View Software	No Change
		I. Edge Enhancement Stepwise	No Change
		J.Contrast/ Brightness Adjustment	No Change
		L. The System Should Have Software To Perform Full Leg/Full Spine/Long Body Imaging/Imaging Stitching.	No Change
		Dry Imaging Printer.	No Change
		Single Tray Option And Should Be Capable Of Any Film Size Printing Option With Changing Tray.	No Change
		The System Must Have A Dry Imager.	No Change
		Pixel Size Less Than 100 Micron.	No Change
		The System Must Be Able To Print At Least 40 Films/ Hr Of The Largest Size.	No Change

			It Must Be Dicom Compatible Allowing Multiple Modalities To Be Connected At A Time.	No Change
			The Imager Should Support Daylight Loading Of Films.	No Change
			The Imager Must Have Minimum Spatial Resolution Of 500 Dpi.	No Change
			Accessories, Spares And Consumables	No Change
			All Standard Accessories, Consumables And Parts Required To Operate The Equipment, Including All Standard Tools And Cleaning And Lubrication Materials, To Be Included In The Offer.	No Change
			Cr Cassette & Image Plate: ·	No Change
			10" X 12" = 2 Pcs	No Change
			14" X 17" = 2 Pcs	No Change
			Mini Pacs System To Transfer The Image From Radiology Department To Doctors Room.	No Change
			Operating Environment	No Change
			The Product Offered Shall Be Designed To Be Stored And To Operate Normally Under The Conditions Of The Purchaser'S Country. The Conditions Include Power Supply, Climate, Temperature, Humidity, Etc.	No Change
			Power Supply: 220 - 240 Vac, 50Hz Fitted With Appropriate Plug.	No Change
			Standards And Safety Requirements	No Change
			Model should be USFDA/European-CE (Issued by notified body) approved	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			User Training	No Change
			Warranty 3 years	No Change
N	Sub total			
Xiv	Dental			
94	Dental Set (capital)	1		No Change
	Dental Chair	2	It should have double articulating headrest with seesaw movement.	No Change
			It should be provided with soft cervical support.	No Change

			Dental unit should have latest overhead delivery system.	No Change
			It should have two 3 way syringes (Tip autoclavable, with spare tips) one on unit side and other on the assistant side.	No Change
			It should have two high speed Air rotor terminals with two rotor hand pieces and accessories and one terminal for fiber optic. One for air motor/micro motor having straight and contra angle hand pieces and other for air rotor terminal with two air rotor hand pieces with two spare cartridges.	No Change
			It should have LED light cure unit with minimum intensity 1200 mW/cm ² .	No Change
			It should have infection control system with non-retraction valves (Bio system /equivalent).	No Change
			All hand pieces / terminals should be kept on Autoclavable pads. 8 spare autoclavable pads should be supplied. Arm of unit should be pneumatically locked.	No Change
			All air tubing of the delivery system can be disinfected internally after every dental procedure.	No Change
			It should have one in built piezo ultrasonic scalar (max frequency should be 36 KHZ)	No Change
			Removable auxiliary tray (autoclavable) shall be supplied – 10 sets. It should have integrated latest foot operated LED light (30000 - 50000 Lux).	No Change
			It should have rotatable water system with removable spittoon. It should have Medium Vacuum Suction and high suction (Motorized Suction).	No Change
			Should have following multiple programmes Two programmable working positions.	No Change
			Spitting and last working position with light ON and OFF automatically.	No Change

			Return to Zero position with light OFF automatically.	No Change
			It should have emergency stop control with luminous indication.	No Change
			Programmable bowl water and cup filler water.	No Change
			It should have LED based X-ray viewer (For I.P.G/O.P.G films).	No Change
			It should be provided with right arm.	No Change
			It should have multi functional foot control base.	No Change
			It should be provided with two stool with adjustable backrest tilt including an adjustable ring for foot rest	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warranty- 3 year	No Change
	Dental Chair Compressor	2	Medical grade, Oil free, Noise free at least 1 HP Compressor.	No Change
			The compressor should be fitted with	No Change
			Built in thermo cut off to save motor during excess of heat	No Change
			auto head air release valve,	No Change
			Automatic cut off	No Change
			Safety release valve	No Change
			Drain Valve	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warranty- 3 year	No Change
	Ultrasonic Scaler with scaler tip	1	Piezotronic Scaler with frequency of 28000-36000 Hz	No Change
			Autoclavable hand piece , Total control is Micro processor based	No Change
			Hand Pieces most sleek.	No Change
			warrant- 3 year	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485

			The scalar supplies with: Piezotronic scalar with 4 tips. FOOT	No Change
	Dental Micromotar - Clinic	1	It should have digital display of speed.	No Change
			High Torque Micro motor (Foot Controlled) with Speed range of 2000 -40000 RPM	No Change
			It should have reverse and forward speed along.	No Change
			It should have auto cut off system for over load.	No Change
			it should be supplied with	No Change
			Contangle Hand piece (Autoclavable) : Speed : 40000 RPM	No Change
			Straight Hand Piece (Autoclavable): Speed 40000 RPM.	No Change
			should be ISO 13485 approved product	No Change
			warranty- 1 year	No Change
	Dental Micromotar - Lab	1	It should have digital display of speed.	No Change
			High Torque Micro motor (Foot Controlled) with Speed range of 2000 -50000 RPM	No Change
			It should have reverse and for wardspeed along.	No Change
			It should have auto cut off system for over load.	No Change
			it should be supplied with	No Change
			Contangle Hand piece (Autoclavable) : Speed : 50000 RPM or more	No Change
			Straight Hand Piece (Autoclavable): Speed 50000 RPM.	No Change
			should be ISO 13485 approved product	No Change
			warranty- 3 year	No Change
	Straight Handpiece for Micromotor	2	straight handpice	No Change
	Dental Airotar	2	Air Rotor hand piece clean head with a speed of 350000 RPM	No Change
			Supplies with Titanium/ SS Air rotor torque hand piece.	No Change
			should be ISO certified product	No Change

			Ultra push type non retraction valve.	No Change
	Dental Airotar Bur Set	2	as per dental unit standard	No Change
	Composit Curing Light	1	as per dental unit standard	No Change
	Vacuum forming machine	1	as per dental unit standard	No Change
	Electric Induction Wax Knief heater	1	as per dental unit standard	No Change
	Lathe Machine	1	as per dental unit standard	No Change
	Acrylizer	1	as per dental unit standard	No Change
	Model Trimmer	1	as per dental unit standard	No Change
	Portable Suction machine	1	Should be fitted with oil immersed noiseless motorized vacuum pump.	No Change
			Cabinet made from stainless steel.	No Change
			Two glass jars on the top of having minimum capacity of 2 Ltrs fitted with rubber air tight lids and overflow safety device.	No Change
			Should be supplied with adequately long pressure tubing providing required pressure.	No Change
			Should have vacuum control by knob.	No Change
			Should be mounted on four caster wheels.	No Change
			Should have motor of 1/4 HP capacity and power consumption not more than 250 Watts.	No Change
			Should have vacuum at least between 100 mm Hg to at least 575 mm Hg (-75 kPa).	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			Warranty: 3 Years	No Change
	X-Smart Endomotor with Apex Locator	1	as per dental unit standard	No Change
	UV Sterilizer Chamber	1	as per dental unit standard	No Change
	Mini Autoclave	1	The autoclave should provide sterilization at 121o C and 134o C for both wrapped and unwrapped	No Change

			tools and also a flash cycle for rapid sterilization.	
			The autoclave should be equipped with a powerful vacuum pump to eject air pockets from the chamber at the beginning and at the end of cycle (Pre-vacuum and Post vacuum)	No Change
			It should have minimum four sterilization programs and two test programs.	No Change
			Minimum volume at least 20liters.	No Change
			It should be class B autoclave so that hollow bodied instruments, hand pieces, and turbines can be fully autoclaved	No Change
			warranty- 3 years	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Xray machine	1	Operation should be conventional as well as automatic.	No Change
			Completely micro controller based digital timer assuring the accuracy of the exposure time selected.	No Change
			Ease of operation as all the functions can be selected from the remote control as well as timer.	No Change
			Feather touch keypad and length of exposure cable should be 5 to 6 meters.	No Change
			Digital timer with the accuracy of 0.01 Sec (0.01 Sec to 4.00 Sec).	No Change
			Patient selection Switches (Thin, Normal and Obese) Film Speed selection switches (3 Speeds) RVG mode for RVG sensor.	No Change
			An excellent output of 65 kV to 70 kV, 7mAs to 10 mAs.	No Change
			Audible and Visual indication of “X-Ray On” (Radiation indications).	No Change
			Should provide compatible voltage stabilizer (Built in/External).	No Change
			Collimating device should be 20 cm in length and parallel/square in	No Change

			a lead shield should also be provided.	
			Excellent, Mechanical maneuverability, long reach scissor arm.	No Change
			Operating Condition: Capable of operating continuously in ambient temperature of 5 to 50 deg C and relative humidity of 15 to 80% in ideal circumstances.	No Change
			Storage condition: Capable of being stored continuously in ambient temperature of 0 to 50 deg C and relative humidity of 15 to 90%	No Change
			Manufacturer/Supplier should have ISO 13485 certificate for quality standard.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			The unit should be AERB approved	No Change
			power requirements 230V, AC, 50 Hz, 15 Amps	No Change
			protection-Suitable stabilizer to be provided.	No Change
			High voltage protection for X-ray tube.	No Change
			Should maintain nominal temp and the heat should be disbursed through a cooling mechanism	No Change
			Should provide a pedestal stand with freely movable round wheels with locking devices to prevent unusual and excessive movement/ System should be wall mounted. It has to be set as per the requirement of the facility.	No Change
			Warranty- 3 year	No Change
	Led Apron with Thyroid Collar	2	Two numbers of BARC approved whole body lead aprons with all attachments and thyroid collars.	No Change
	Hanger for Lead Apron	1	as per required	No Change
	view box	1	single chamber	No Change
		1	SUPER CMOS/CCD Technology	No Change

	RVG Sensor with sleeve		Sensor Size No.1 (universal)/ Size No.0 (pediatrics)/Size No.0 (optional).	No Change
			No. of Pixels 16 lp/mm – 24lp/mm (true solution).	No Change
			Pixel size is 18.5 x 18.5 micron.	No Change
			Should provide compatible software with Image capture, enhancement and manipulation tools.	No Change
			Sensor cable length should be 3 meters and reinforced for durability and reliability (Fiber optic and scintillator tech).	No Change
			RVG (with Software) should be supplied with adequate and compatible computer system with latest operating system i.e desktop of latest version with 500 GB or more Hard disk drive and RAM approx 4 GB) and suitable laser printer.	No Change
			Manufacturer/Supplier should have ISO 13485 certificate for quality standard.	No Change
			Model should be USFDA/European-CE (issued by notified body)/ISO 13485 accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
			warranty- 3 year	No Change
			Operating Condition: Capable of operating continuously in ambient temperature of 5 to 50 deg C and relative humidity of 15 to 80% in ideal circumstances.	No Change
	Deionized Water system with Accessories	1	as per standard dental unit setup	No Change
	Crown Remover	1 set	as per standard dental unit setup	No Change
	Electric Kettle	1	as per standard dental unit setup	No Change
	Eye Protection Glass	2	as per standard dental unit setup	No Change
	Hydraulic Clamp	1	as per standard dental unit setup	No Change

95	Instrument Dressing Trolley	1 pc	Model should be USFDA/European-CE (issued by notified body)/ISO 13485 Accredited by NABCB/IAF	Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Instrument Dressing Tray	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Dressing Drum	2 pc (Medium)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Dressing Drum	2 pc (Small)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Kidney Tray	6 pc (Medium)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Steel Bowl	6 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Non Tooth Forcep	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Suture cutting Scissor	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	BP Handle	6 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Conservative Instrument Kit	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Composite Polishing kit	1		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Endo Files - K file (15-85)	2 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Endo Files - H file (15-85)	2 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Endo Box	1		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Hand Scaling Kit/ Perio Scaler	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485

	Periosteal Elevator	10 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Extraction Forcep (Pediatric)	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Extraction Forcep	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Bone Curette	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Bone File	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Chisel - Mallet	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Gracy Curette	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Metallic Syringe	10 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Universal Plier	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Adams Plier	1 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Semicircle Orthodontic plier (Half-round)	1 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Orthodontic Wire Cutter	1 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Wax Knife	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Wax Carver	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Wax Spoon	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Lacron Carver	5 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485

	Hylin Carver	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Mettalic Scale	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	3-Way Syringe	4 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Perforated impression tray	2 set (plastic)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Perforated impression tray	2 set (stainless steel)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Sectional dentulous upper- lower perforated impression tray	2 set (stainless steel)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Sectional dentulous upper- lower perforated impression tray	2 set (plastic)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Micromotor Stone Bur/ Trimmer	2 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Micromotor Carbide Trimmer/ Bur	2 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Composite Polishing kit	1 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Articulator	2		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Clamp	2		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Flask	2 set		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Dental Cement Mixing Spatula (Straight)	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Dental Cement Mixing Spatula (Curve)	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485

	Hot Plate	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Cheek Retractor	10 pc (stainless steel)		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Blow Torch	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Spirit Lamp	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Chip Blower	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Eye Protection Glass	2		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Dappen Dish	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Glass Slab	2 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
	Rubber Mixing Bowl	4 pc		Model should be USFDA/European-CE (issued by notified body)/ISO 13485
96	Absorbable Gelatin Sponge (Gelostat)	10 packet	Absorbable Gelatin Sponge (Gelostat)	No Change
	Lignospan Cartridge (Septodent)	10 packet	Lignospan Cartridge (Septodent)	No Change
	Sterile Siliconized Dental Needle (Septojet)	6 packet	Sterile Siliconized Dental Needle (Septojet)	No Change
	Sand paper (Number- 320)	10 pc	Sand paper (Number- 320)	No Change
	Sand paper Mandrel	6 pc	Sand paper Mandrel	No Change
	Articulating paper	10 pc	Articulating paper	No Change
	Dental Cement Mixing Pad	5 pc	Dental Cement Mixing Pad	No Change
	Agate Spatula	2 pc	Agate Spatula	No Change
	Suction Tip	10 packet	Suction Tip	No Change
	Flouride Gel	6 bottle	Flouride Gel	No Change

Flouride gel Applicator Brush/ Tip	20 box Tip diameter- 2mm	Flouride gel Applicator Brush/ Tip	No Change
GIC - Luting	2 pc	GIC - Luting	No Change
GIC - Restorative	2 pc	GIC - Restorative	No Change
Zinc oxide eugenol (Sealer)	1 pc	Zinc oxide eugenol (Sealer)	No Change
Zinc oxide eugenol (Paste)	1 pc	Zinc oxide eugenol (Paste)	No Change
Formacresol	1 pc	Formacresol	No Change
Calcium Hydroxide Powder	1 box	Calcium Hydroxide Powder	No Change
Hydrogen Peroxide	1 bottle	Hydrogen Peroxide	No Change
Sodium Hypochlorite	1 bottle	Sodium Hypochlorite	No Change
EDTA Gel	1 tube	EDTA Gel	No Change
Paper Points	2 box	Paper Points	No Change
Gutta percha points	2 box	Gutta percha points	No Change
Alginate	25 kg	Alginate	No Change
Soft liners/ Tissue conditioner - MolloSil	1 box	Soft liners/ Tissue conditioner - MolloSil	No Change
Soft Putty impression material	1 set	Soft Putty impression material	No Change
Pumice Powder	1 packet	Pumice Powder	No Change
Cotton Polishing Buff	25 pc	Cotton Polishing Buff	No Change
Polishing Cake	2 pc	Polishing Cake	No Change
Soft Tray Ultradent (Night guard sheet)	6 packet	Soft Tray Ultradent (Night guard sheet)	No Change
Heat cure Powder & Liquid	1 box	Heat cure Powder & Liquid	No Change
Acrylic Repair Material Pink Colour	10 box (400gm each)	Acrylic Repair Material Pink Colour	No Change
Clear Acrylic (J.C. Acrylic)	3 box	Clear Acrylic (J.C. Acrylic)	No Change
Sticky wax	2 packet	Sticky wax	No Change
Green Stick	2 packet	Green Stick	No Change
Modelling Wax	6 packet	Modelling Wax	No Change

	Shelac Base plate	5 packet	Shelac Base plate	No Change
	Full Teeth Set	5 box	Full Teeth Set	No Change
	Complete Teeth Sets With Different Sizes, Shapes & Shades	5 box	Complete Teeth Sets With Different Sizes, Shapes & Shades	No Change
	Airotar Spray	2 file(Bottle)	Airotar Spray	No Change
	Dye Stone	5 kg	Dye Stone	No Change
	Plaster Gypsum (POP)	10 kg	Plaster Gypsum (POP)	No Change
	Plaster Stone	10 kg	Plaster Stone	No Change
	Remanium Clinical Coil 0.80MM Orthodontic Wire	6 pc (50gm)	Remanium Clinical Coil 0.80MM Orthodontic Wire	No Change
	Vaseline Green Apna	4 pc (400gm)	Vaseline Green Apna	No Change
97	Deca head Microscope with camera	1	Optical system: Infinity corrected system	No Change
			Focus : Vertical stage movement 25mm per coarse stroke	No Change
			Vertical stage movement 1micron per fine stroke	No Change
			Stage rotation of 200 degrees or better with Stage Lock	No Change
			Stage Tension adjustment	No Change
			Illuminator : Built-in-Koehler illumination for transmitted light LED bulb/100W Halogen with 15 no spare bulb (pre-centered).	No Change
			Revolving nosepiece : Interchangeable/Removable Reversed Coded Quintuple Nosepiece .	No Change
			Objectives : Plan 2/2.5x, 4/5x, 10X, 40X, & 100XOil	No Change
			FOV 22 or more	No Change
			Condenser: APPROPRIATE SWING OUT CONDENSER FOR 2X - 100X	No Change
			Digital Camera: Camera attachment capable of handling bright field, dark field images with 1/2.3" CMOS or 2/3" high density CCD Chip, more than 5 Million pixel resolution with 17" or better TFT LCD monitor White Balance	No Change

			adjustment, Image Adjustment (Gamma Correction, shading Adjustment, Black level adjustment Hue Wheel variation, colour saturation adjustment)	
			Software: Image analysis software that include length, width and circle measurements, comparison of images on PC. Branded PC with 4GB RAM, 500GB HDD, Win 8/10, Graphic card 1GB with 17" or better HD monitor, Printer.	No Change
			System should be European CE with notified body number or USFDA approved product	No Change
			LED pointer and oil should be supplied along	No Change
			warranty- 3 years	No Change
			Electrical power requirements 220-230 Vac, 50-60Hz	No Change
98	Binocular Microscope	5	Should be infinity- corrected optical system binocular microscope	No Change
			Should be supplied with tilting/adjustable ergonomic binocular tube.	No Change
			Should have high luminescent LED Light source.	No Change
			Manual single- axis coarse or fine motion handle system.	No Change
			Nosepiece: Sextuple nosepiece.	No Change
			Condensers: Phase condenser	No Change
			Eyepiece- 10X	No Change
			FOV-22mm or more	No Change
			Objectives- 10X, 20X, 40X, 100 X, 40 X for phase contrast.	No Change
			Both sides dioptre adjustment.	No Change
			Stage double slide holder.	No Change
			Should have smooth movements ceramic-coated coaxial stage rotating mechanism and torque adjustment mechanism.	No Change
			Power supply- 100-240VAC, 50-60Hz	No Change
			Model should be USFDA /European- CE (Issued by notified body) approved	No Change
			Warranty :3 years	No Change

			In bid document "Section i- Instruction to bidders (ITB)>> C. Preparation of Bid >> Eligible Bidders>>3.3 The sole bidder must have average annual turnover of Rs 12 Crores (average of any three years during the last 5 Years).	No Change
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