Good Neighbors International

Terms of Reference (ToR)

Supply, Delivery, Installation, Commissioning and Testing of Medical Equipment and Furniture

Project Title	Health System Recovery Project, Nuwakot
Type of service	Supply, Delivery, Installation, Commissioning and testing of Medical Equipment and Furniture
Location	District (Trishuli) Hospital, Nuwakot
Name of the company/firm	External company/firm/supplier
Deadline of ITB submission	17 January 2021
Anticipated completion of project	31 March 2021

1. General Background

Good Neighbors International (GNI) Nepal has been working in Nepal since 2002 with the objective of improving lives of the poor people especially children through education, child protection, and income generating activities, health, WASH, and disaster risk reduction. GNI Nepal has been operating its interventions in 19 districts.

2. Project Description and Rationale

Good Neighbors International with funding from the Korea International Cooperation Agency (KOICA) is implementing Health System Recovery Project (HSRP) in Nuwakot District since December 2015 with an objective of improving the health status and psychosocial well-being of community members through post-disaster recovery. HSRP covers 2 municipalities and 5 rural municipalities. The Health System Recovery Project aims:

a. To improve Maternal and Child Health (MCH) status in target communities

b. To improve services of Adolescent Sexual and Reproductive Health (ASRH)

c. To improve students, psycho-social status

d. To improve Health Facility with Functional Equipment

One of the main objectives of HSRP project is to make functional health facilities equipped with necessary medical equipment and furniture. KOICA has constructed 10 health posts and a district hospital in Nuwakot district. GNI Nepal is planning to supply all the necessary medical equipment and furniture to those Health Posts and hospital constructed by KOICA.

3. Supply of Medical Equipment & Furniture

Most of the health facilities in Nuwakot district were destroyed by the 2015 earthquake. HSRP has been working to re-vitalize services at health facilities. Additionally, Nepal government plans to provide basic maternity services including delivery services by establishing birthing centres at each health posts. Therefore, this Project is committed to supply medical equipment and furniture to Trishuli District Hospital, Nuwakot as per the government standard.

4. Scope of the work

Under this assignment, complete equipment and furniture will be placed in newly constructed district (Trishuli) hospital. In this phase, District (Trishuli) Hospital will be supported with Medical Equipment & Furniture. The list of medical equipment and furniture is mentioned in ***Annex I.***

The bidder shall supply either all the equipment or furniture or individual item.

5. Quantity and specification of supply items

The quantity and technical specification of the required Medical Equipment & Furniture is mentioned in technical specification form ***Annex II***.

6. Expected Deliverables

Followings deliverables are the expected from the supplier;

- Supply of Medical Equipment & Furniture as per the specification.
- Transportation of commodities in good condition to District (Trishuli) hospital in Nuwakot.
- Proper installation and commissioning of Medical Equipment & Furniture in hospital
- Orientation on operating/handling procedure and safety measures to concerned staffs.
- Maintenance or replacement of the Medical Equipment & Furniture, in case of problems after sales as per warranty.

7. Duration

After the signing of the agreement, it is expected that the delivery, installation, commissioning, testing and orientation should be executed within 45 days from receiving the purchase order.

The project shall be completed by 31 March 2021.

8. Budget and Payment Procedure

The supplier/firm should submit a complete budget with detailed breakdown including applicable taxes at the time of submission of **ITB**. The bidding form is given in the ***Annex-III.*** The budget covers the price of the commodity, transportation cost, cost of installation of equipment/furniture and orientation to concerned staffs and any other applicable costs.

The supplier/firm shall bear all the tariffs, duties and applicable taxes or charges levied at any stage during the execution of the work. Any loss and/or damage of supplied commodity during packaging, transportation, and installation will be the responsibility of supplier/firm, no compensation will be provided by GNI regarding this loss/damage.

Mode of Payment

The payment shall be made in instalment basis.

1. **Advance 25% along with** PO
2. **Final payment 75%** after completion and verification of the tasks

9. Acceptance of Proposal

All rights to accept or reject the proposal without giving any notice and reason shall be reserved with GNI Nepal. If deemed necessary, the firm/supplier shall be asked for modification and presentation of the proposal before approval.

10. Management of the supply

The selected company/firm will be responsible to supply the commodity and be accountable for the timely delivery of the expected quality and quantity of commodities.

11. Bid Security

- The bidder shall furnish, as part of its bid, a bid security amounting 5% should be made through bank Guarantee letter in the name Good Neighbors International with six month's validity.
- Unsuccessful bidders' bid security will be discharged as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity. The successful bidder's bid security will be discharged after signing the agreement.

The bid security may be forfeited:

(a) if the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form; or

(b) in the case of a successful Bidder, if the Bidder fails to sign the contract

12. Late Bids

Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, will be declared "Late" or "Rejected" and returned unopened to the Bidder.

13. Modification and Withdrawal of Bids

The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

14. Responsibilities

a. Supplier/firm

The supplier/firm will be responsible to accomplish the task outlined by this ToR and ensure the delivery of commodities stated above within the agreed budget and timeline.

b. GNI Nepal

- GNI Nepal guided by its policies and practices will assist the supplier/firm to achieve the objective of this ToR.
- Make physical verification and approve each equipment/ furniture by a person assigned by GNI before and after dispatching of commodities.

15. Termination of the contract

GNI Nepal will terminate the contract if the supplier/firm commits a breach in the performance or observance of its obligation under this ToR. The supplier/firm shall be notified in writing a week prior to the termination of the agreement.

16. Confidentiality

During the performance of the assignment or any time after expiry or termination of the agreement, the supplier/firm shall not disclose to any person or otherwise make use of any confidential information which the company/firm has obtained or may obtain in the course of the work relating to GNI Nepal and other stakeholders.

17. Documents to be submitted

The bid shall contain following documents:

A. Detailed financial proposal: The proposal should include the price of commodities (including tax), transportation cost, installation cost, and any other applicable costs. Prices of commodities can be quoted for different qualities/standard of the same item mentioning specifications of each quality.

   A complete list of proposed commodities with their clear photographs (colored)/ catalogue, technical datasheet, Quality and standard certificates Like: CE, ISO, SFDA, etc., valid authorization letter from the manufacturer should be included with the bid.

B. In addition, the following documents shall be submitted by the bidder.
   a. Copy of company/firm registration
   b. Profile of firm with relevant experiences
   c. A copy of Tax clearance certificate
   d. VAT/ PAN registration
   e. Audit report
   f. Any other relevant documents

18. How submit the bid

The EOI should reach the address below via courier or hand delivery by **17:00 hrs., 17 January 2021.** Please, enclose the bid in an envelope, do seal and mark it with **"Bid to supply Medical Equipment & Furniture"**

and send to:

Good Neighbors International Nepal

Ekantakuna-13, Lalitpur

GPO Box 8975, EPC 1605

Kathmandu, Nepal

Annex-I

List of Equipment and Furniture for District (Trishuli) Hospital, Nuwakot

S.N.	Name of Equipment/ Furniture	Unit	Required Quantity
1.	Color Doppler USG machine with following probe(Linear, Deep,TVS)	Pcs	1
2.	Endososcopy machine	Pcs	1
3.	Orthopedic brokenscrew removal set	Pcs	1
4.	Bain circuit	Pcs	3
5.	Jackson rees circuit	Pcs	2
6.	Capnograph	Pcs	2
7.	Patient monitor(5 parameter)	Pcs	1
8.	Patient monitor(7 parameter)	Pcs	1
9.	Cautry machine with accessories	Pcs	1
10.	Glucometer	Pcs	3
11.	Crotherapy machine(Indian)	Pcs	1
12.	Tile/Floor cleaner	Pcs	1
13.	Sodium potassium(Electrolyte analyzer)	Set	1
14.	PT/INR	Pcs	1
15.	Fully automatic biochemistry analyser	Set	1
16.	Microscope	Pcs	2
17.	Petriplate	Pcs	1
18.	Autoclave machine	Pcs	1
19.	Centrifuse	Pcs	1
20.	Dry bath incubator	Pcs	2
21.	Hot plate	Pcs	1
22.	Fluid warmer	Pcs	2
23.	Digital thermometer	Pcs	2
24.	Refrigerator	Pcs	2
25.	ESR rack	Pcs	3

Annex –II
Technical Specification Form

1. Color Doppler USG machine with following probe (Linear, Deep,TVS)

S.N.	Purchaser's Specifications	Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer			
	Brand			
	Type/Mode			
	Country of Origin			
1	**Description of Functions**			
1.1	A fully digital Colour Doppler ultrasound DICOM compatible imaging system for Radiology, OB Gyn, vascular, Cardiac, small parts applications.			
2	**Operational Requirements**			
2.1	It shall operate on mains AC power supply.			
3	**System Configurations**			
3.1	Digital colour Doppler ultrasound machine, 1 unit			
3.2	2-6 MHz. broadband curved array transducer, 1 unit			
3.3	3-12 MHz. broadband linear array transducer, 1 unit			
3.4	4-8 MHz. broadband endocavity (TV/TR) transducer, 1 unit			
3.5	B/W Video Thermal printer, 1 unit.			
3.6	Bidder shall indicate brand and model information here and provide technical data document for major components specified above.			
4	**Technical Specifications**			
4.1	System shall provide all-digital broadband beam forming with maximum display depth shall be at least 30 cm.			
4.2	The system must be capable of supporting special technique that performs analysis at the pixel level eliminating speckle noise artefact and dynamically enhancing tissue textures, margins and borders.			
4.3	The system shall have minimum 80000 digitally processed channels per image frame.			
4.4	The system must support broadband Phased array, Convex and Linear array transducers.			
4.5	System shall have at least 3 active ports.			
4.6	System shall provide 256 dB fulltime input dynamic range.			
4.7	Digitally controlled, 17-inch or bigger size Flat Panel monitor with tilt & swivel facility.			
4.8	Full alphanumeric keyboard.			
4.9	Slide pot TGC & LGC gain controls with pre-defined curves.			
4.10	System must be a new generation ergonomically designed to curb minimum injury to sonographer/ physician with keyboard platform rotatable and moveable (up/down).			
4.11	System must support Tissue Harmonic Imaging in Linear Array and convex array transducers.			

S.N.	Purchaser's Specifications	Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
4.12	The system shall support full screen display of all 3D views including individual A, B and C MPR views and simultaneous display of thumbnail views on the same system display monitor.			
4.13	The system must have in-built image management system with 1TB HDD or higher or better memory like solid state memory, CD/DVD- Writing facility and direct paper printout of images.			
4.14	System must have 256 grey shades.			
4.15	Cine memory of 250 frames for cine loop playback.			
4.16	Frame rate: not less than 500fps.			
4.17	The system must have 2D, CW, PW, Colour Doppler, THI, Colour Power Doppler, M-Mode, full Colour Doppler echocardiography system, 2D Duplex, colour Power Angio, Directional power angio.			
4.18	Power Doppler for small flow shall be available along with latest technology			
4.19	Colour coded tissue Doppler must be available with quantification for Myocardiac thickness and strain rate imaging as option.			
4.20	ECG triggers facility.			
4.21	Shall have built in gel warmers			
4.22	System Shall offer Contrast harmonic imaging and must have optimization settings to detect contrast agents. Please specify other advanced technologies to perform better contrast harmonic imaging			
4.23	System must be DICOM ready and capable of being interfaced with HIS/RIS/PACS.			
4.24	Following transducers or similar frequency range to be quoted as standard: • 2-6 MHz. broadband curved array transducer. • 3-12 MHz. broadband linear array transducer. • 4-8 MHz. broadband endocavity (TV/TR) transducer.			
4.25	To ensure maximum clinical utility, the manufacturer must demonstrate the capability of the system to successfully perform in the following types of applications: • Abdominal • Small parts and superficial • Paediatric • Musculoskeletal • Obstetrical • Gynaecological and fertility • Cardiac • Prostate • Vascular (Peripheral, Cerebrovascular, and Intraoperative)			

S.N.	Purchaser's Specifications	Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
4.26	The system architecture shall be designed to simultaneously process the entire bandwidth of broadband transducer received frequencies from 1 to 15 MHz			
5	**Accessories, Spare Parts and Consumables**			
5.1	**Accessories:** • Black and white video thermal printer with 10 rolls of high density recording paper: 01 no. • MO Disc: 10 pcs • Ultrasound gels: 02 bottles.			
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system 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.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
6.3	Shall provide UPS of suitable rating with voltage regulation and spike protection for 30 minutes back-up.			
7	**Standards & Safety Requirements**			
7.1	Must submit ISO 13485:2003/AC: 2007 **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the basic safety and essential performance of ultrasonic medical diagnostic and monitoring equipment.			
8	**User Training**			
8.1	The Supplier shall conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			

S.N.	Purchaser's Specifications	Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	List of important spare parts and accessories with their part numbers and costing.			
12.4	Certificate of calibration and inspection from factory.			

2. Endoscopy machine

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	High definition endoscopy and optical diagnosis have become the new standard in clinical care.				
2.0	**Operational Requirements**				
2.1	The flexible HD Video Endoscopy system shall be used for diagnostic procedures for visualization of epithelial micro-surface pattern and micro-vascular pattern. It shall have Flexible Spectral Imaging Color Enhancement imaging technology.				
3.0	**System Configuration**				
3.1	Video Endoscope with complete sets of accessories.				
4.0	**Technical Specification**				
4.1	**HD Video Processor with inbuilt Xenon light source**				
4.1.1	The processor shall be High end and shall be able to process HD signal from HD scope.				
4.1.2	It shall have capability to enhance image for identification of pit patterns to classic colorectal polyps and tumors.				
4.1.3	It shall have at least one among digital and optical Enhancement technology.				
4.1.4	Its Optical Digital endoscopy Platform shall be capable for visualization and characterization of mucosal and vascular pattern morphology				
4.1.5	There shall be able a provision to record HD video. It shall have color adjustment setting of Brightness, Red, Blue, Green, R-Hue, Chroma, 9 steps				

4.1.6	It shall consist of electronic shutter, Average/Peak selectable and Auto/Manual selectable for light control system			
4.1.7	It shall have Air pump level up to different steps.			
4.1.8	It shall have RGBS connectors, Y/C Connectors, and Composite video connector for input and output			
4.1.9	Control panel shall consists of feather touch.			
4.1.10	The system shall have inbuilt light source or separate light source. In case the system may have standalone light source; the model of light should be same of the processor. Different Combination and manufacturer of processor and light source shall not be allowed.			
4.1.11	It shall have Flexible Spectral Imaging Color Enhancement: FICE technology with three Presets (FICE 0,1,8)			
4.2	**Light Source.**			
4.2.1	300W Xenon light technology with emergency halogen lamp of 75W must be available			
4.2.2	It shall have Xenon light source having life span of approx. 500 hours.			
4.2.3	It shall have automatic light control			
4.3	**HD Video Gastroscope**			
4.3.1	It shall have Super CCD chip scope for digital transmission of the signals, thus providing outstanding high-resolution imaging. It shall have FICE technology for image enhancement.			
4.3.2	It shall have minimum 4-100mm or better observation range& viewing direction of 00 forward.			
4.3.3	It shall have Tip Deflection Up: 210° Down: 900, Right:1000& Left : 1000			
4.3.4	Distal End Diameter shall be approx.9.2mm-9.5mm			
4.3.5	Insertion Tube Diameter shall be approx. 9.2mm-9.5mm			
4.3.6	Minimum Instrument channel shall be approx. 2.8mmm			
4.3.7	It shall have Working length of approx. 1050mm-1100mm			
4.3.8	Total length shall be approx. 1350-1400 mm.			
4.3.9	The whole unit shall be supplied with the standard Trolley.Additionally the trolley shall be equipped with the hanger for holding scopes.			
4.3.10	Reporting software with permanent licence and branded desktop PC with hardware configuration like:i5 processor,4GB RAM,1TB HDD,CD/DVD-RW ,21 inches monitor and color printer should be provided with the system.			
4.4	**Monitor**			
4.4.1	It shall be Medical Grade LED/LCD Monitor.			
4.4.2	It shall be HD monitor for display.			
4.4.3	It shall have resolution of 1920 X 1080 (full HD)			
4.4.4	It shall have output of DVI, HD-SDI, RGB, S-Video			
4.4.5	It shall be 26” or more in size.			
5.0	**Accessories, Spares and Consumables**			
5.1	Leakage Tester- 1 nos.			
5.2	Silicone oil- 1 pcs			

5.3	Biopsy Forceps- 5 pcs each			
5.4	Mouth piece- 1 pcs			
5.5	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be atleast 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Shall meet IEC 60601-2-18 Medical Electrical Equipment PART 2: Particular Requirements for the Safety of ENDOSCOPIC Equipment.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English(Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			

12.4	Bidder should provide certificate of calibration and inspection from the manufacturer during installation.			

3. Orthopaedic broken screw removal set

Technical Specifications of Orthopedic broken screw removing set

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Broken screw removing instruments are used to extract the broken orthopedic implants like: screws, nails and so on.				
2.0	**Operational Requirements**				
2.1	It shall be made up of Medical Graded Stainless Steel (SS316)				
3.0	**System Configuration**				
3.1	Orthopedic broken screw-complete set				
4.0	**Technical Specification**				
4.1	The set should have screwdrivers & screwdriver shafts, forceps for screw removal, conical extraction screws with T handle, hollow reamers & extraction bolts with T handle.				
4.2	The instrument set shall contain				
4.3	Hollow Reamer for 3.5/4.0mm Screws				
4.4	Spare Reamer Tube				
4.5	Extraction Bolt for 3.5/4.0/4.5mm Screws				
4.6	Extraction Screw, conical, for 2.7mm, 3.5mm and 4.0mm Screws				
4.7	Hollow Reamer for 4.5mm Screws				
4.8	Extraction Screw, conical, for 4.5/6.5mm Screws				
4.9	Hollow Reamer for 5.0/6.0/6.5/7.0mm Screws				
4.10	Extraction Bolt, for 5.0/6.0/6.5/7.0mm Screws				
4.11	Anodized Aluminium Plate				
4.12	Sharp Hook of length 155mm				
4.13	Forceps for Screw Removal, L 205mm				
4.14	T-Handle with quick coupling of length 80mm				
5.0	**Accessories, Spares and Consumables**				
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
7.0	**Certifications And Standards.**				
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**				

7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			

4. Bain circuit

Technical Specifications of Bain Circuit

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Bain circuit is the medical device used to deliver respiratory gases to the patient during anesthesia.				
2.0	**Operational Requirements**				
2.1	Bain circuit is the coaxial system in which fresh gas flows through a narrow inner tube within outer corrugated tubing.				
3.0	**System Configuration**				
3.1	Bain Circuit-complete set.				
4.0	**Technical Specification**				
4.1	Length shall be 1.8 metres				
4.2	Diameter of the outer tube shall be 22mm which shall be transparent and carries expiratory gases.				
4.3	Diameter of inner tube shall be 7 mm that carries inspiratory gases.				
4.4	Resistance shall be less than 0.7 cmH2O				
5.0	**Accessories, Spares and Consumables**				
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
7.0	**Certifications And Standards.**				
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**				
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.				

5. Jackson rees circuit

Technical Specifications of Jackson Rees Circuit

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Bain circuit is the medical device used to deliver respiratory gases to the patient during anesthesia.				
2.0	**Operational Requirements**				
2.1	It shall be latex free				
3.0	**System Configuration**				
3.1	Jackson rees Circuit-complete set.				
4.0	**Technical Specification**				
4.1	It shall be made from latex free synthetic rubber				
4.2	It could be used to Pediatric and adult patients.				
4.3	Mask and fresh gas oxygen tubing shall be provided				
4.4	Breathing bag of 500ml,1L,2Land 3L shall be provided				
5.0	**Accessories, Spares and Consumables**				
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
7.0	**Certifications And Standards.**				
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**				
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.				

6. Capnograph

Technical Specifications of Capnograph monitor

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				

1.1	Capnography is the monitoring of the concentration or partial pressure of carbon dioxide (CO 2) in the respiratory gases.			
2.0	**Operational Requirements**			
2.1	It shall operate on AC power supply as well as built-in battery.			
3.0	**System Configuration**			
3.1	Capnograph monitors with complete set of accessories.			
4.0	**Technical Specification**			
4.1	It shall be portable and suitable for all patient categories neonatal, infant and adult.			
4.2	It shall have robust design allows for use in demanding environments.			
4.3	It shall have touch screen display measuring not less than 5 inches which provides easy and intuitive operation			
4.4	It shall have side stream EtCO2 sensor.			
4.6	It shall work on Non-dispersive infrared (NDIR) single beam optics and dual wavelength			
4.7	CO2 measurement shall ranges from 0 mmHg to 150 mmHg			
4.8	CO2 readability shall be 0.1mmHg			
4.9	CO2 accuracy shall be ± 5% or better			
4.12	It shall be upgradable to SPO2, temperature and NiBP monitoring.			
4.13	It shall be easily mounted on a pole or wall bracket.			
5.0	**Accessories, spares and consumables**			
5.1	**$EtCO_2$ accessories**			
5.1.1	Side stream $EtCO_2$ transducer.			
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be atleast 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.			

8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.4	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
11.2	Must supply preassembled unit, ready to use.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

7. Patient monitor (5 parameter)

Technical Specifications of 5 Parameter Patient Monitor

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	For monitoring vital signs of all patient categories, at bedside, OT or during transportation.				
2.0	**Operational Requirements**				
2.1	It shall operate on AC power supply as well as built-in battery.				
3.0	**System Configuration**				

3.1	Five parameters patient Monitor, portable with complete accessories.			
4.0	**Technical Specification**			
4.1	It shall be portable and suitable for all patient categories neonatal, infant and adult.			
4.2	It shall have robust design allows for use in demanding environments.			
4.3	It shall have touch screen display measuring not less than 10 inches which provides easy and intuitive operation			
4.4	It shall have soft-touch keys, durable and easy to clean.			
4.6	It shall be able to monitor ECG, Heart Rate (HR), Respiration Rate (RR), SpO2, $EtCO_2$,NIBP & IBP and Temperature measurements with ECG leads I, II, III.			
4.7	There should be availability of all accessories for the above mentioned parameters.			
4.8	The monitor should be able to configure automatically for new parameters as they are connected			
4.9	The system shall have provision for interbed monitoring.			
4.12	It shall have sweep, adjustable 12.5, 25 or 50mm/second.			
4.13	Sensitivity (amplitude) of all signals user adjustable.			
4.14	Standardizing marker, 1mV.			
4.15	Shall have user pre-set of high/low alarms on all monitored parameters.			
4.16	Audio visual alarm in case measurements are outside pre-set range.			
4.17	Shall have silencing feature for audio alarms.			
4.18	Real-time ST complex view and comparison			
4.19	Shall have defibrillator sync and protection during defibrillation.			
4.20	Shall have pacemaker detection/rejection.			
4.21	Display shall have facility to report system errors, leads and sensors failure and built-in battery status.			
4.22	Autonomy of built-in rechargeable battery approximately 3 hours, automatic recharge when connected to mains			
4.23	Automatic switch to batteries in case of power failure.			
4.24	The monitor should have the interfacing connectors like, 1 AC power connector, 1 RJ45 network connector, 2 USB 2.0 connector, 1 multi functional output connector (output ECG, nurse call, and defibrillation sync. Signal).			
	Measurement Range:			
	HR approximately 30 to 250bpm			
	NIBP approximately 20 to 290mmHg (systolic)			
	SpO2 approximately 40 to 100%			
	RR (ECG derived) approximately 6 to 180bpm			
	Temperature approximately 10 to 45C			
	IBP approximately 0 to 300mmHg			
	ETCO2 approximately 0 to 150 mmHg.			
5.0	**Accessories, spares and consumables**			

5.1	**NIBP accessories**			
5.1.3	1 x NIBP hose			
5.1.2	1 x Blood pressure cuff			
5.2	**ECG accessories**			
5.2.1	1 x Patient cable extremities (1 x adult)			
5.2.2	1 x Set of electrodes (1 x adult)			
5.3	**Temperature accessories**			
5.3.1	1 x Skin temperature probes (incl. connection cable)			
5.4	**Pulse oximetry (SpO2) sensors**			
5.4.1	1 x Adult size, reusable clip-on type			
5.5	**$EtCO_2$ accessories**			
5.5.1	Side stream $EtCO_2$ transducer.			
5.6	**IBP Accessories**			
5.6.1	1 x IBP cable and sensor			
5.70	**Wall mount: 1x Standard wall mount(as suggested by manufacturing company)**			
	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.			
7.4	Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			

10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.4	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
11.2	Must supply preassembled unit, ready to use.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English (Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.4	Bidder should provide certificate of calibration and inspection from the manufacturer during installation.			

8. Patient monitor (7 parameter)

Technical Specifications of 7 Parameter Patient Monitor

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	For monitoring vital signs of all patient categories, at bedside, OT or during transportation.				
2.0	**Operational Requirements**				
2.1	It shall operate on AC power supply as well as built-in battery.				
3.0	**System Configuration**				
3.1	Seven parameters patient Monitor, portable with complete accessories.				
4.0	**Technical Specification**				
4.1	It shall be portable and suitable for all patient categories neonatal, infant and adult.				
4.2	It shall have robust design allows for use in demanding environments.				

4.3	It shall have touch screen display measuring not less than 12 inches which provides easy and intuitive operation			
4.4	It shall have soft-touch keys, durable and easy to clean.			
4.6	It shall be able to monitor ECG, Heart Rate (HR), Respiration Rate (RR), SpO2,NiBP and temperature simultaneously.			
4.7	There should be availability of all accessories for the above mentioned parameters.			
4.8	The monitor should be able to configure automatically for new parameters as they are connected			
4.9	The system shall have provision for interbed monitoring.			
4.12	It shall have sweep, adjustable 12.5, 25 or 50mm/second.			
4.13	Sensitivity (amplitude) of all signals user adjustable.			
4.14	Standardizing marker, 1mV.			
4.15	Shall have user pre-set of high/low alarms on all monitored parameters.			
4.16	Audio visual alarm in case measurements are outside pre-set range.			
4.17	Shall have silencing feature for audio alarms.			
4.18	Real-time ST complex view and comparison			
4.19	Shall have defibrillator sync and protection during defibrillation.			
4.20	Shall have pacemaker detection/rejection.			
4.21	Display shall have facility to report system errors, leads and sensors failure and built-in battery status.			
4.22	Autonomy of built-in rechargeable battery approximately 3 hours, automatic recharge when connected to mains			
4.23	Automatic switch to batteries in case of power failure.			
4.24	The monitor should have the interfacing connectors like, 1 AC power connector, 1 RJ45 network connector, 2 USB 2.0 connector, 1 multi functional output connector (output ECG, nurse call, and defibrillation sync. Signal).			
	Measurement Range:			
	HR approximately 30 to 250bpm			
	NIBP approximately 20 to 290mmHg (systolic)			
	SpO2 approximately 40 to 100%			
	RR (ECG derived) approximately 6 to 180bpm			
	Temperature approximately 10 to 45C			
5.0	**Accessories, spares and consumables**			
5.1	**NIBP accessories**			
5.1.3	1 x NIBP hose			
5.1.2	1 x Blood pressure cuff			
5.2	**ECG accessories**			
5.2.1	1 x Patient cable extremities (1 x adult)			
5.2.2	1 x Set of electrodes (1 x adult)			
5.3	**Temperature accessories**			
5.3.1	1 x Skin temperature probes (incl. connection cable)			
5.4	**Pulse oximetry (SpO2) sensors**			

5.4.1	1 x Adult size, reusable clip-on type			
5.70	**Wall mount: 1x Standard wall mount(as suggested by manufacturing company)**			
	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.			
7.4	Shall meet the safety requirements as per IEC 60601-2-27:1994—Medical electrical equipment—Part 2: Particular requirements for the safety of electrocardiographic monitoring equipment.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.4	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
11.2	Must supply preassembled unit, ready to use.			

12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

9. Cautery machine with accessories

Technical Specifications of Cautery Machine

S.N.	Technical Specification		Bidder's Proposed Specifications	Pg.no in datasheet	Deviation(If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Electrosurgical Units are used for cutting and coagulating electrically during surgery. Sometimes called Surgical Diathermy or Cautery machine, Suitable for all under water, Laparoscopic & open surgeries				
2.0	**Operational Requirements**				
2.1	Microcontroller-based isolated Electro Surgical Generator				
3	**System Configuration**				
3.1	300Watt Electrosurgery Unit with complete accessories.				
4.0	**Technical Specification**				
4.1	Ergonomic Operator interface (Quick Step Control).				
4.2	It shall be able to maintain set power over wider range of tissue by Tissue Feedback Technology				
4.3	It shall have patient Return Electrode Monitoring for the safety against the Patient Return Electrode site burns.				
4.4	There shall be two Simultaneous coagulation output at a time with independent control.				
4.5	It shall ensure the ESU with accessories are safe for functioning & display Error Codes if any				
4.6	There shall be at least 30 Surgical Programs which helps in setting the system after system is powered ON.				
4.7	There shall be audio feedback after completion of Bipolar Coag, reduces charring and sticking.				
4.8	There shall be automatic Start & Stop of Bipolar current by tissue sensing without foot switch activation.				
4.9	Monopolar Cut: Pure - Continues output, 300 W at 300 Ω, CF 1.5 Blend - Bursts repeating at 29 kHz 55% ON cycle, 200 W at				

	300 Ω, CF 2.5			
4.10	Monopolar Coag : Damped Sine wave 460 kHz Soft - Repetition Frequency 62 kHz, 120 W at 500 Ω, CF 5.0 Fulgurate LCF - Repetition Frequency 42 kHz, 120 W at 500 Ω, CF 6.2 Fulgurate HCF- Repetition Frequency 34 kHz, 120 W at 500 Ω, CF 7.0 Spray - Randomized Repetition Frequency 34 kHz < f < 50 kHz, 120 W at 500 Ω, CF 8.0			
4.11	Bipolar : Pure Sine wave 390 kHz Micro - Lower output voltage, 70 W at 100 Ω, CF 1.5 Standard - Medium output voltage, 70 W at 100 Ω, CF 1.5 Macro - Higher output voltage, 70 W at 100 Ω, CF 1.5			
4.12	It shall come with standard dedicated cart trolley.			
5.0	**Accessories, spares and consumables**			
5.1	· Monopolar footswitch (Two Pedal) 100 % washable : 1 nos.			
5.2	· Bipolar footswitch (Single Pedal) 100 % washable : 1 nos.			
5.3	· Hand pencil Electrode with CUT and Coagulation : 2 nos. reusable			
5.4	· Bipolar forceps : 1 nos. Reusable			
5.4	· Bipolar cord : 1 nos. Reusable			
5.5	· Disposable gel based patient pad single and dual foil : 1 nos each			
5.6	· Universal adaptor for monopolar cable : 1 nos.			
6.0	**Operating Environment**			
6.1	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.			
6.2	Power supply: 220 – 240 VAC, 50Hz Single Phase fitted with appropriate plug. The power cable must be at least 3 metre in length.			
7.0	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Shall meet IEC 60601-2-2 Medical Electrical Equipment - PART 2-2: Particular Requirements for the Safety of High Frequency Surgical Equipment.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			

9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.4	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD)			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

10. Glucometer

Technical Specifications of Glucometer

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Glucometer is used to measure the glucose level in Blood.				
2.0	**Operational Requirements**				
2.1	It shall operate on battery.				
3.0	**System Configuration**				
3.1	Glucometer with 100 test strips.				
4.0	**Technical Specification**				
4.1	It shall give fast result in 5 seconds.				
4.2	It shall be easy and accurate testing				
4.3	It shall have easy to read display.				
4.4	Sample volume shall be less than 1µL.				
4.5	Sample shall be fresh capillary whole blood.				

5.0	**Accessories, Spares and Consumables**			
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It shall be operated through battery.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	Bidder shall replace the unit if it is damaged or malfunctioned.			
11.0	**Installation and Commissioning**			
11.1	N/A			

11. Cryotherapy machine

Technical Specifications of Cryotherapy

S.N.	Technical Specification		Bidder's Proposed Specifications	Pg.no in datasheet	Deviation(If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Cryotherapy, sometimes known as cold therapy, is the local or general use of low temperatures in medical therapy. It is used to treat a variety of tissue lesions				
2.0	**Operational Requirements**				

2.1	Cryotherapy gun shall be pneumatically operated through cryogens like: Carbon dioxide, nitrogen.			
3.0	**System Configuration**			
3.1	Cryotherapy gun with cryo tips,CO2 regulator with high pressure Pipe.			
4.0	**Technical Specification**			
4.1	It shall be designed for use with Carbon dioxide.			
4.2	The cryotherapy tips shall reach about -65℃ with CO2.			
4.3	Tissue necrosis shall occur at -20℃ .			
4.4	Tissue temperature at the edge of ie ball formed by cryotips is 0℃.			
4.5	It shall be incorporated with the push lever switch conviently loated at the handle of the gun having 3 positions;OFF,FREEZE,DEFROST.			
4.6	It shall be supplied with the regulator consisting of pressure gauze, exhaust vent, cylinder yoke and high pressure pipe.			
5.0	**Operating Environment**			
5.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Climate, Temperature, Humidity, etc.			
6.0	**Certifications And Standards.**			
6.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
6.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.0	**User Training**			
7.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
8.0	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9.0	**Maintenance Service during and After Warranty Period**			
9.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.0	**Installation and Commissioning**			
10.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
10.2	Must supply preassembled unit, ready to use.			
11.0	**Documentation**			
11.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			

11.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
11.3	List of important spare parts and accessories with their part number and costing.			
11.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

12. Tile/Floor cleaner

Technical Specifications of Floor scrubber

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Scrubber machine is widely used for cleaning and scrubbing the floors,Tiles,Marbles and granites.				
2.0	**Operational Requirements**				
2.1	Scrubber machine shall work on AC Mains.				
3.0	**System Configuration**				
3.1	Scrubber Machine with complete sets of accessories.				
4.0	**Technical Specification**				
4.1	It shall have main body, handle and water tank.				
4.2	It shall be supplied with pad holder, hard brush and soft brush.				
4.3	It shall have double capacitor design which allows safer operation				
4.4	It shall have multiple functions like: Carpet and Floor cleaning, wax removing and so on.				
4.5	It shall have low speed polishing floor crystal treatment and renewing.				
4.6	Speed shall be around 175 RPM				
4.7	The diameter of the base pate shall be 17 inches(approx.)				
4.8	The total weight shall not exceed 42 Kg.				
5.0	**Accessories, Spares and Consumables**				
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6.0	**Operating Environment**				

6.1 6.2	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc. It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted and power consumption shall not exceed 1200 Watts with appropriate plug and the wire must be at least 5m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO certificate.			
7.2	CE **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

13. Electrolyte analyser (Sodium Potassium)

Technical Specifications of Electrolyte Analyzer

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	ISE electrolyte analyser (Na+, K+) for analysis of serum, plasma, urine, whole blood.				
2.0	**Operational Requirements**				
2.1	It shall be based on Ion Selective Technology.				
3.0	**System Configuration**				
3.1	Electrolyte analyser with integrated printer and with complete accessories.				
4.0	**Technical Specification**				
4.1	Microprocessor controlled electrolyte analyser with the measured parameter of Na+, K+				
4.2	Sample volume shall be less than 100ul.				
4.3	Analysing time-less than 60 seconds/test, sample throughout 60 – 65 samples/hour.				
4.4	Should have facility to be interfaced to an auto sampler for any future requirements				
4.5	Shall have fully automatic calibration of all parameters.				
4.6	Maintenance free electrodes with long warranty. Bidder shall specify the warranty period.				
4.7	Shall have data display on built in LCD display screen.				
4.8	Standby mode facility user controlled and automatic for economical operations.				
4.9	Instrument manufacturer should have its own Q.C. Any third party Q.C. and calibrator shall not be acceptable. In case of a third party Q.C and Calibrators, the values in the data sheet must be for the quoted model.				
4.10	Should have QC program available in the analyzer.				
4.11	Shall have automatic flagging of abnormal result.				
4.12	It shall have only one reagent module for all standards and wash solutions and waste also shall be collected in the same module.				
4.13	It shall have only one cleaning reagents for electrodes and daily maintenance.				
4.14	Inbuilt thermal printer for printing patient data and facility to interface with computer an external printer.				
4.15	It shall have a memory of at least 100 samples and should have in-built sample counter.				

5.0	**Accessories, Spares and Consumables**			
5.1	Quality Control-1 unit			
5.2	Reagent Pack for 500 tests-1 unit			
5.3	Thermal paper-10 rolls			
5.4	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			

12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

14. PT/INR

Technical Specifications of Coagulation Analyzer

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Automated Single Channel Coagulation Analyzer				
2.0	**Operational Requirements**				
2.1	Automated Single Channel Coagulation Analyzer shall be single channel				
3.0	**System Configuration**				
3.1	Automated Single Channel Coagulation Analyzer with complete set of accessories				
4.0	**Technical Specification**				
4.1	It should be single channel coagulation semi -automated analyzer				
4.2	The channels should have 640 nm for clotting tests to remove HIL (Hemolysis, Icteric, Lipemic) interference and 800 nm for D Dimer to remover interference in latex particles				
4.3	Principle for clotting should be scattered light detection method at 640 nm with clotting curve bearing generated, displayed and printed if required				
4.4	It should have 5 cuvette incubation position				
4.5	It should have 5 samples/reagent position of which 3 numbers should be at 37°C and 2 numbers at room temperature				
4.6	One reagent position should have magnetic stirrer function				
4.7	It should have a integrated thermal printer				
4.8	It should have a large touch screen of display of calibration, QC data, sample data, programming, setting and running test				
4.9	It should have 1 USB point, one RS232, one LAN and power point				
4.10	It should be able to upgrade software with the help of USB				

4.11	he calibration should have facility to input 6 multipoint calibration data, MNPT and ISI values			
4.12	It should report in seconds, INR, g/L, ratio, FEU & %			
4.13	The setting should have option of sample ID in sequential or custom mode			
4.14	It should perform all clotting test (PT, APTT, FIB, TT, Factors, LA, Protein S), immunoturb test (DDimer)			
4.15	The system should have 12 QC options per test with L-J facility, display, print and disable/delete points			
4.16	500 nos. single reaction cuvettes should be supplied as standard accessory. Quote for 100000 cuvettes must be given separately in the commercial bid			
4.17	The system should accept RFID data for cuvettes loading			
4.18	The test sequence should prompt the sample/reagent name to add next in each channel, have sensors in channel for detecting sample and reagent addition and automatically do incubation, measuring and reset the channel for next test on removing the tube after result is displayed and printed			
5.0	**Accessories, Spares and Consumables**			
5.1	USB drive-1 unit			
5.2	Reagent holder-1 unit			
5.3	Stylus-1 unit			
5.4	Magnetic beads for stirring, small reagent cups-2 units each			
5.5	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks expected by			

	users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English (Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should provide certificate of calibration and inspection from the manufacturer during installation.			

15. Fully Automatic Biochemistry Analyser

Technical Specifications of Fully Automatic Biochemistry Analyser

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	For analysis of serum, plasma, urine, cerebrospinal fluid (CSF), hemolysate and whole blood.				
2	**Operational Requirements**				
2.1	Must be open system and fully computerized with random access, selective multi-batch type, providing maximum flexibility in programming				
2.2	Must be capable of undertaking at least 100 tests/hr involving fixed time, end point and kinetic chemistry				
3	**System Configuration**				

3.1	Fully Automated Bio-Chemistry Analyser with integrated printer and computer with complete accessories			
4	**Technical Specifications**			
4.1	Optical Requirement: • Wavelength Range: 340 to 670nm • Absorbance: 0.000 to 3.000A • Measurement: Monochromatic & Bio chromatic options. • Source of light: Halogen lamp (10W/6V or 20W/12V)			
4.2	Reagent Handling System : • Pre and Post dilution: Automatic • Sample volume: 3 – 100 μl approx. with least count 0.5μl • Reaction volume: 180 – 500 μl approx. • Reagent volume : 20 – 300 μl approx. with least count 1μl			
4.3	Analytical Requirements: • At least 20 sample position • At least 40 reagent position with refrigerated reagent tray • At least 40 reaction position • Reaction types: End point, kinetic- differential and initial rate bi-chromatic, with & without blank correction • Test Parameters: 50 or more, all programmable as per user's requirement. • Incubation Temp: 37°C preferably with variable temperature options • Cuvette Temp: 37°C +0.1°C • Quality control: Daily and monthly QC, S.D., C.V. • Auto wash station to wash the cuvette for re-use with water consumption less than 5 L/hr			
4.4	PC: At least 5th generation processor, latest windows based operating system, minimum widows 7, Hard disk minimum 500GB ,4 GB RAM, LED monitor minimum size 17", connectivity LAN, USB 3			
4.5	Software: Patient oriented, user friendly and test oriented.			
5	**Accessories, spares and consumables**			
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			

6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
6.3	Suitable UPS with maintenance free batteries for minimum 30 min. back-up shall be supplied with the system.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall meet IEC 61010-2-081safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Authorization**			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	List of important spare parts and accessories with their part numbers and costing.			
11.4	Certificate of calibration and inspection from factory.			
11.5	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

16. Microscope

Technical Specifications of Binocular Microscope

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Compound microscope consists of two or more than two magnifying lenses. One can view individual cells, even living ones. It has high magnification				
2.0	**Operational Requirements**				
2.1	Microscope shall be compound with binocular head that operates through AC Mains.				
3.0	**System Configuration**				
3.1	Binocular Microscope Compound with complete accessories				
4.0	**Technical Specification**				
4.1	Body shall be sturdy, stable base body with focus adjustment controls				
4.2	It shall be binocular				
4.3	Eye piece: Paired, high quality, (the image of the object as seen through the binocular eyepiece must be well defined centrally in at least 2/3 field of view), achromatic, wide field, 10x and 15x without inbuilt pointer. The eyepiece must be aplanatic and have a minimum field number of 18. Dioptre adjustment must be present on one/ both eye pieces or on the eye piece tube				
4.4	Objective: Four 4x, 10x, 40x, 100x.				
4.5	10x and 40x objectives must have numerical apertures of 0.25 and 0.65 respectively and must be of spring loaded				
4.6	100 x must have numerical aperture of 1.25 and must be of oil immersion and spring loaded type. Suitable prominent marking must be provided on 100x for easy identification.				
4.7	Unbreakable containers to be provided for storing the objectives. All objectives must be wide field, achromatic and par focal.				
4.8	Making for the Objectives :Each objective must be engraved with the following information:-				
4.8.1	•Name of the manufacturer				
4.8.2	•Magnification and numerical aperture, for example, 10x/0.25				
4.8.3	•100x objective must be engraved with the word				

	'Oil'			
4.9	Nose piece: Revolving nose piece to accommodate four objectives with click stops. It must be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment. Extra ports if any must be fitted with dust proof metallic/ebonite caps.			
4.10	Stage Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine vermier graduations (minimum reading accuracy of 0.1 mm). the stage must be provided with spring loaded slide holder for exact positioning of specimen/ slide. It must be designed with convenient sub-stage vertical coaxial adjustment for slide manipulation. The stage must have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/-5mm)			
4.11	Sub-stage condenser: Abbe-type condenser, numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating a spherical lens and an iris-diaphragm. The condenser must have a filter holder and removable/ swing in/ out blue filter (suitable for bright field Microscopy).			
4.12	Sub-stage illuminator: 1. The system must have a build-in variable light source (Illuminator). This light source must have a 20 W, 6/12 V Halogen lamp. The circuitry for the light source must include a constant voltage supply. The system must be provided with a step down transformer and an on-off switch and intensity control. The lamp must be provided with a lamp socket which has the facility for easy replacement of the bulb.			
4.13	The Illuminator must have a built-in field diaphragm for Kohler illumination.			
4.14	Eye piece tubes: Binocular eye piece tubes, inclined at 30 and 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range			
4.15	Focusing knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement must have sensitivity of two microns or less (finer) over the entire coarse focusing stop safety arrangement must be provided.			
4.16	All optical parts including objectives, eye pieces and prisms must have anti-reflective coating which also gives anti-fungal property.			
4.17	It shall have the built in light source with halogen bulb or better.			
5.0	**Accessories, Spares and Consumables**			
5.1	**Accessories**			
5.1.1	100x oil immersion objective – 1 nos.			

5.1.2	Halogen bulb – 2 nos.			
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz exceed with line regulation of ±10% and fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

17. Petriplate

Technical Specifications of Petriplate

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Petriplate is used for culture during incubation.				
2.0	**Operational Requirements**				
2.1	It shall be round shape				
3.0	**System Configuration**				
3.1	Petriplate				
4.0	**Technical Specification**				
4.1	Diameter shall be 90 mm				
4.2	Shall be made up of Non cytotoxic virgin polysterene or better				
5.0	**Accessories, Spares and Consumables**				
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6.0	**Operating Environment**				
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Climate, Temperature, Humidity, etc.				
7.0	**Certifications And Standards.**				
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**				
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.				
8.0	**User Training**				
8.1	N/A				
9.0	**Warranty**				
9.1	Comprehensive warranty for 1 year after acceptance.				
10.0	**Maintenance Service during and After Warranty Period**				
10.1	N/A				
11.0	**Installation and Commissioning**				
11.1	N/A				

18. Autoclave machine

Technical Specifications of Autoclave

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Autoclaves are required for sterilizing an object in high temperature and high pressure steam.				
2.0	**Operational Requirements**				
2.1	Microprocessor based electrically heated horizontal steam sterilizer a				
3.0	**System Configuration**				
3.1	Microprocessor based Autoclave with complete sets of accessories.				
4.0	**Technical Specification**				
4.1	It shall be bench top				
4.2	Pressure range 15-20 psi adjustable				
4.3	Pressure control switch with Digital display				
4.4	Outer and inner chamber shall be made up of stainless steel (SS316)				
4.5	Inner chamber made of at least 18 SWG SS sheet				
4.6	Chamber volume: approx.50 litres.				
4.7	Stainless steel Steam jacket insulated with high grade glass wool				
4.8	Joint less gasket				
4.9	Water inlet and drain valves				
4.10	It shall come with plenty of safety features like:over pressure,over temperature,etc.				
5.0	**Accessories, Spares and Consumables**				
5.1	**Accessories**				
5.1.1	• Spare heating element- 2 set				
5.1.2	• Spare dooe gasket - 2 set				
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6.0	**Operating Environment**				

6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz exceed with line regulation of ±10% and fitted with appropriate plug and the wire must be atleast 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Shall meet IEC 61010-2-040 Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

19. Centrifuge (Brushless)

Technical Specifications of Brushless centrifuge

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Centrifuges are required in the Laboratory to separate various components of Blood and any other liquid sample for analysis				
2.0	**Operational Requirements**				
2.1	Centrifuge shall be brushless and aerodynamic compact construction for vibration free performance				
3.0	**System Configuration**				
3.1	Benchtop brushless centrifuge with complete sets of accessories.				
4.0	**Technical Specification**				
4.1	Body shall be made up of strong fabricated & corrosion resistant steel				
4.2	It shall have the digital timer				
4.3	It shall be vibration free.				
4.4	It shall have sturdy and attractive Control panel – for start/stop switch, dynamic brakes, step less speed regulator with zero start switch & speed indicator with timer and protective fuses.				
4.5	It shall have the facility of door interlocking mechanism.				
4.6	It shall have maintenance-free brushless drive motor with exact speed pre selection and display.				
4.7	It shall have the RPM upto 5000 or more with the speed accuracy 1 RPM				
4.80	Tube Capacity :No. 24 – 36 :Size 5 – 15 ml				
5.0	**Accessories, Spares and Consumables**				
5.1	**Accessories**				
5.1.1	• Four buckets-01 set				
5.1.2	• Tube Holders as appropriate				
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6.0	**Operating Environment**				

6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz exceed with line regulation of ±10% and power consumption shall not exceed 750 Watts fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
7.3	Must comply with IEC/TR 61010-3-020 :Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 3-020: Conformity verification report for IEC 61010-2-020:1992 Particular requirements for laboratory centrifuges"			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

20. Dry bath incubator

Technical Specifications of Dry bath incubator

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Dry bath incubator can be used for a variety scientific applications including blood banking, pre warming technique, warming reagents, PCR, heating tubes and so on.				
2.0	**Operational Requirements**				
2.1	Dry bath incubators shall be microprocessor based and digital				
3.0	**System Configuration**				
3.1	48 holes dry bath incubator with complete sets of accessories.				
4.0	**Technical Specification**				
4.1	It shall be table top design and digital.				
4.2	Maximum temperature shall be 150℃				
4.3	Temperature accuracy shall be ±0.5℃ or better.				
4.4	Temperature readability shall be 0.1℃				
4.5	It shall be provided with the digital timer.				
4.6	Heating Chamber shall be made up of Molded Aluminum Alloy Chamber.				
4.7	It shall come with 2/4 blocks.				
4.8	Each block shall be made up of aluminum.				
4.9	It shall be equipped with the Proportional Integral Derivative(PID) controller that displays set temperature and process temperature				
4.10	It shall be equipped with the A type PT 100 temperature sensor.				
4.11	It shall provide audible and visual alarm when temperature control ends				
5.0	**Accessories, Spares and Consumables**				
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6.0	**Operating Environment**				

6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz exceed with line regulation of ±10% and power consumption shall not exceed 650 Watts fitted with appropriate plug and the wire must be atleast 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

21. Hot plate

Technical Specifications of Hot Plate

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Electric Hot Plates are most important tools in laboratory, cytology, histology, pathology which are utilized to heat samples.				
2.0	**Operational Requirements**				
2.1	Hot plate shall be digital and bench top design.				
3.0	**System Configuration**				
3.1	Electric hot plate with complete sets of accessories				
4.0	**Technical Specification**				
4.1	It shall be table top design and digital.				
4.2	The heating top shall be round, square or rectangular in shape.				
	The area of the heating top shall be 300 square centimeter.				
4.2	Maximum temperature shall be 250℃				
4.3	Temperature accuracy shall be ±0.5℃ or better.				
4.4	Temperature readability shall be 0.1℃				
4.5	It shall be provided with the digital timer.				
4.6	Heating to shall be made up of stainless steel or better.				
4.7	It shall be equipped with the Proportional Integral Derivative(PID) controller that displays set temperature and process temperature				
4.8	It shall be equipped with the A type PT 100 temperature sensor.				
4.9	It shall provide audible and visual alarm when temperature control ends				
5.0	**Accessories, Spares and Consumables**				
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
6.0	**Operating Environment**				
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				

6.2	It Should be operated by 220V -230V AC,50/60Hz exceed with line regulation of ±10% and fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

22. Fluid warmer

Technical Specifications of Fluid warmer

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (if any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				

1	**Description of Function**			
1.1	Fluid Warming System provides a quick and versatile solution to help prevent inadvertent hypothermia during surgery and other procedures requiring fluid administration.			
2	**Operational Requirements**			
2.1	System that warms the infusion and irrigating solutions & supply of this heated infusion solution to the patient.			
3	**System Configuration**			
3.1	Fluid warming system with complete set of accessories.			
4	**Technical Specification**			
4.1	Should be Portable and Easy to use			
4.2	Set-up should be finished in 1 minute at most			
4.2	It shall have to provision to clamp in horizontal bed rails or the IV Stand.			
4.4	Should have High accuracy digital control for temperature			
4.5	temperature range :28° C to 42° C			
4.6	Should have Acoustic and visible alarming mechanism to prevent from over heating			
4.7	Should be compatible for all types of disposable set			
4.8	Tube size : 3.0mm-4.0mm			
4.9	Flow Rate : 2-12ml/min			
4.10	It shall have continuous operation mode			
4.11	It shall be waterproof with class IP64			
4.12	Weight shall not exceed 600gm			
5	**Operating Environment**			
5.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
5.2	It Should be operated by 220-230 V AC single phase, 50Hz fitted with appropriate plug to meet purchaser's country requirements. The power cable must be minimum 3 metres long.			
6	**Certifications And Standards.**			
6.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
6.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
6.3	Certified for meting IEC60601-2-24: Particular requirements for the safety blood warmers and controllers.			
7	**User Training**			
7.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			

8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service during and After Warranty Period**			
9.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
9.5	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
10	**Installation and Commissioning**			
10.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
11	**Documentation**			
11.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
11.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
11.3	List of important spare parts and accessories with their part number and costing.			
11.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

23. Digital Thermometer

Technical Specifications of Digital thermometer

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Digital thermometer to measure temperature				
2.0	**Operational Requirements**				
2.1	Shall be digital with PT 100 sensor and battery operated				
3.0	**System Configuration**				
3.1	Digital Thermometer with accessories				
4.0	**Technical Specification**				
4.1	Flat type, wide thermometer, safe to use, no glass, no mercury.				
4.2	Scale: Celsius scale				
4.3	Measurement range: 32°C to 45°C				
4.4	Display: Liquid crystal display, easy to read.				

4.5	Water proof for ease of cleaning.			
5.0	**Accessories, Spares and Consumables**			
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Climate, Temperature, Humidity, etc.			
6.2	It shall be operated through battery.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	N/A			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	Bidder shall replace the unit if it is damaged or malfunctioned.			
11.0	**Installation and Commissioning**			
11.1	N/A			

24. Refrigerator

Technical Specifications of Refrigerator

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	Laboratory Refrigerator is used to store samples, medicines, blood bags, reagents etc. under controlled temperature conditions.				
2.0	**Operational Requirements**				
2.1	Refrigeration system shall be CFC-free refrigerant cooling system				

3.0	**System Configuration**			
3.1	Refrigerator-400 Litres with complete set of accessories			
4.0	**Technical Specification**			
4.1	Digital Temperature Controller			
4.2	Monitor for temperature with alarm, visual and sound, for high/low temperature, shall be available			
4.3	Interior light shall be flourescent or LED and shall be operated when door is opened.			
4.4	There shall be the availability of double doors made up of Toughened glass.			
4.5	Doors shall be lockable and shall be supplied with minimum two keys.			
4.6	There shall be automatic defrosting.			
4.7	The unit shall consume less electricity.			
4.8	Noise level shall be extremely low.			
5.0	**Accessories, Spares and Consumables**			
5.1	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	It Should be operated by 220V -230V AC,50/60Hz with line regulation of ±10% fitted with appropriate plug and the wire must be at least 3m long.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	The bidder must conduct user training for this equipment to enable operators to use the equipment properly. The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users.			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			

10.2	The bidder must submit the letter of commitment regarding the availability of spare parts and accessories for next 10 years at the time of bidding.			
11.0	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.0	**Documentation**			
12.1	Bidder should provide user (Operating) manual in English(Hardcopy and CD).			
12.2	Bidder should provide Service (Technical / Maintenance) manual in English (Hardcopy and CD).			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Bidder should be provide certificate of calibration and inspection from the manufacturer during installation.			

25. ESR rack

Technical Specifications of ESR Rack

S.N.	Technical Specification		Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.0	**Description of Function**				
1.1	It is used for ESR technique and with appropriate tubes.				
2.0	**Operational Requirements**				
2.1	It shall be minimum 5 positions ESR rack.				
3.0	**System Configuration**				
3.1	Rack ESR, 5 positions complete unit.				
4.0	**Technical Specification**				
4.1	Complete set-up to measure erythrocyte sedimentation rate.				
4.2	Stand with valves to hold pipettes.				
4.3	Shall provide positions to hold minimum 5 test tubes.				
4.4	Stand shall be made of stainless steel or plastic.				
4.5	Shall come with pipettes, with graduation, 0 to 200mm				
5.0	**Accessories, Spares and Consumables**				
5.1	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. Bidders must specify the quantity of every item included in their offer (including				

	items not specified above).			
6.0	**Operating Environment**			
6.1	The product offered shall be designed to be installed and to operate normally under the conditions of the purchaser's site. The conditions include Climate, Temperature, Humidity, etc.			
7.0	**Certifications And Standards.**			
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) **OR** USFDA approved product certificate.			
8.0	**User Training**			
8.1	N/A			
9.0	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10.0	**Maintenance Service during and After Warranty Period**			
10.1	Bidder shall replace the unit if it is damaged or malfunctioned.			
11.0	**Installation and Commissioning**			
11.1	N/A			

Annex - III

Bid Submission Form (Medical Equipment and Furniture)

SN	Name of Equipment/ Furniture	Unit	Quantity	Brand Name	Unit Rate Including VAT	Total Amount in Figure NRs.	Specification form filled? (Yes/No)	Detail catalog/manual of product attached?	Standard and safety related document attached?	Authorization document attached?
1.	Color Doppler USG machine with following probe(Linear, Deep, TVS)	Pcs	1							
2.	Endoscopy machine	Pcs	1							
3.	Orthopaedic broken screw removal set	Pcs	1							
4.	Bain circuit	Pcs	3							
5.	Jackson rees circuit	Pcs	2							
6.	Capnograph	Pcs	2							
7.	Patient monitor(5 parameter)	Pcs	1							
8.	Patient monitor(7 parameter)	Pcs	1							
9.	Cautry machine with accessories	Pcs	1							
10.	Glucometer	Pcs	3							
11.	Crotherapy machine(Indian)	Pcs	1							
12.	Tile/Floor cleaner	Pcs	1							
13.	Sodium potassium	Set	1							
14.	PT/INR	Pcs	1							

15.	Fully automatic biochemistry analyser	Set	1							
16.	Microscope	Pcs	2							
17.	Petriplate	Pcs	1							
18.	Autoclave machine	Pcs	1							
19.	Centrifuge	Pcs	1							
20.	Dry bath incubator	Pcs	2							
21.	Hot plate	Pcs	1							
22.	Fluid warmer	Pcs	2							
23.	digital thermometer	Pcs	2							
24.	Refrigerator	Pcs	2							
25.	ESR rack	Pcs	3							