Technical Specification of Applanation Tonometer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Perkins Applanation Tonometer	**Yes /No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	In ophthalmology, tonometry is the procedure eye care professionals perform to determine the intraocular pressure (IOP), the fluid pressure inside the eye.			
2	**Operational Requirements**			
2.1	It shall work on rechargeable battery.			
3	**System Configuration**			
3.1	Applanation Tonometer, complete unit.			
4	**Technical Specifications**			
4.1	Hand held Applanation tonometer using Goldmann prism, with precisely counter balanced movements for use in supine and sitting patients.			
4.2	Should have goldmann tonometry principle.			
4.3	Should mount onto the microscope and can be swivelled into position when required.			
4.4	Should have working position and must have two resting position.			
4.5	Shall have LED based illumination to enable use regardless of ambient lighting conditions.			
4.6	Measurement range from 0 to 80 mm of Hg in 2mmHg increments.			
4.7	Diameter of the pneumatic face should be at least 3.06 mm.			
4.8	It shall have integrated rechargeable battery and shall provide AC adaptor, power cable for charging battery.			
4.9	Prism holder shall allow easy placement of sterilized prisms.			
4.10	The Perkins tonometer should have ability to provide applanation tonometry readings that correlate strongly with Goldmann tonometer.			
4.11	Should have weight with accessories approximate 1000gm.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** • Calibration bar, Prism, Mount base (For head mount model only) • Carrying case: 01 no.			
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 product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.			
6.2	Power supply: Shall operate on rechargeable battery.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001or ISO13485for Medical Devices **AND**			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
7.2	CE or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	Standard warranty conditions are applicable.			
11	**Installation and Commissioning**			
11.1	Must supply preassembled unit ready to use.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			
Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted and also must submit original technical brochure. Failure in doing so may lead to rejection of bid from technical committee.				

Technical Specification of Centrifuge – Desktop 8 tubes 10-15 ml

S.N.	Purchaser's Specifications	Bidder's offer
	Centrifuge – Desktop 8 tubes 10-15 ml	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	**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	**Operational Requirements**	
2.1	Clinical electrical centrifuge to be used at blood transfusion centres for routine centrifuging tests. The units must be fitted with resiliently mounted motor for vibration free performance.	
3	**System Configuration**	
3.1	Centrifuge – cabinet type 8 tubes 10-15 ml	
4	**Technical Specifications**	
4.1	Microprocessor controlled and programmable type, swing out rotor with tube holder.	
4.2	Facilities, adaptors and accessories for 8 tubes of 10-15 ml	
4.3	Speed 1000-4000 RPM or better; Max. RCF 1600 g or better	
4.4	Motor: It should have thermally protected brush less induction motor.	
4.5	It should have digital display for RPM and RCF with adjustable digital timer up to 60 minutes.	
4.6	It should have lid lock sensor, door open sensor and imbalance sensor.	
4.7	Quiet operation and low vibration	
4.8	Suitable to work on 220-240 Volts, single phase 50-60 Hz AC supply; minimum of 3 meters mains cable with earth provision (three pin plug fitted)	
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 store 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: 220-240V/ 50 Hz AC Single phase fitted with appropriate plug type D (3 pins). The power cable must be minimum 3 meters long.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	

S.N.	Purchaser's Specifications	Bidder's offer
7.3	Must comply with IEC 61010-2-020: Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-020: Particular requirements for laboratory centrifuges.	
8	**User Training**	
8.1	Not applicable	
9	**Warranty**	
9.1	Comprehensive warranty for 1 year after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Must supply preassembled unit, ready to use.	
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 number and costing.	
12.4	Certificate of calibration and inspection from factory.	

Technical Specification of Colorimeter

S.N.	Purchaser's Specifications	Bidder's Offer
	Colorimeter	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	General purpose colorimeter use in clinical laboratory.	
2	**Operational Requirements**	
2.1	Microprocessor controlled system.	
3	**System Configuration**	
3.1	Colorimeter with complete accessories.	
4	**Technical Specifications**	
4.1	Must have 8 no of filters wave length from 400 nm to 700 nm.	
4.2	Must have a 3 digit LED display calibrated directly in optical density.	
4.3	Detector must be encased spill proof photocell.	
4.4	Must have facilities for concentration, calculation, percentage transmission and optical density.	
4.5	Lamp source: Broad spectrum LED, covering full visible range	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** • Turret-mounted filters • Cuvettes: 10 nos. • Test tube stand: 02 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	**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.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	

S.N.	Purchaser's Specifications	Bidder's Offer
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
7.3	Shall meet IEC 61010-1 safety requirements for electrical equipment for measurement, control, and laboratory use.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Supplier must accomplish proper installation and commissioning of the equipment on site.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	Certificate of calibration and inspection.	
12.4	List of important spare parts and accessories with their part numbers and costing.	

Technical Specification of DLC-Counter, Manual

S.N.	Purchaser's Specifications	Bidder's Offer
	DLC-Counter, Manual	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	A differential cell counter in which the percentages of blood cell types are calculated as well as the total number of cells.	
2	**Operational Requirements**	
2.1	Manual type DLC-Counter.	
3	**System Configuration**	
3.1	DLC-Counter, Manual, complete unit.	
4	**Technical Specifications**	
4.1	It must be a differential cell counter.	
4.2	Must provide blood cell counting and simple calculations including percentage.	
4.3	Each unit counts up to 999 and last unit totalize the different cells.	
4.4	The bell automatically sounds at very 100.	
4.5	It must be 6unit-8keys and totalizer.	
4.6	It has a dual knob on both ends to facilitate easy resetting.	
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 Climate, Temperature, Humidity, etc.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE (EEC Directives) or USFDA approved product certificate.	
8	**User Training**	
8.1	Supply shall include user training.	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Supplier must accomplish proper installation and commissioning of the equipment on site.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	Certificate of calibration and inspection.	
12.4	List of important spare parts and accessories with their part numbers and costing.	

ECG Machine, Portable (12 Channel)

S.N.	Purchaser's Specifications		Bidder's Offer
	ECG Machine, Portable (12 Channel)		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	ECG Machine is primary equipment to record ECG Signal in various configurations.		
2	**Operational Requirements**		
2.1	Portable digital ECG machine must be able to acquire all 12 Leads simultaneously.		
3	**System Configuration**		
3.1	Portable digital ECG machine with complete accessories		
4	**Technical Specifications**		
4.1	Simultaneous recording of 12 standard leads: aVR, aVL, aVF, I, II, III and V1-6 pre-cordials.		
4.2	Internal memory for data storage.		
4.3	Alphanumeric keyboard with function keys.		
4.4	Continuous check on the quality of electrodes connection, audio visual alert on loss of signal		
4.5	Appropriately protected for operation during defibrillation.		
4.6	Display, 7 inches or more Display shows ECG-curves, heart rate, patient name and ID, time, speed and filter setting.		
4.7	Front panel provides indication of system and battery status, electrode connection.		
4.8	Thermal Printer		
4.9	Print-out on folded thermo-reactive paper, format A4.		
4.10	Number of channels printed is user selectable: 3, 6 or 12.		
4.11	Paper speed, user adjustable: 5, 25 and 50mm/sec or more.		
4.12	Sensitivity, automatic or user selectable: 5, 10 and 20mm/mV or more		
4.13	Battery back up of at least 3 hours of continuous operation		
5	**Accessories, spares and consumables**		
5.1	**Accessories:** • Patient cable-1 no. • Reusable chest electrodes, suction ball-type- 6 nos. • Extremity clamp electrodes, reusable- 4 nos. • Box of A4 recording paper, 100 sheets- 1 no. • Bottles of electrode gel, approximately 350ml- 2 nos. • Spare rechargeable battery pack- 1 no. • Set of spare fuses- 1 set • Plastic protective dustcover- 1 no. • Manufacture Company made trolley-1 no.		
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**		

S.N.	Purchaser's Specifications	Bidder's Offer
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: 220–240V AC, 50Hz fitted with appropriate plug type D round 3 pins. The power cable must be at least 3 metre in length.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	Must Submit EU CE and USFDA approved product certificate.	
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.	
7.4	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Supplier must accomplish proper installation and commissioning of the equipment on site.	
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.	

Technical Specification of OT Table

Sn.no	Purchaser's particular, description, specification	Bidder's Compliance Sheet		
	OT table	**Yes/No**	**Pageno.** in Catalogue	**Remark**
	Manufacturer:			
	Brand:			
	Type /Model:			
	Country Of Origin:			
1	**Description Of Function**			
1.1	A dedicated operating table which can be used for any kind of surgery from general surgery, Gynaecology, urologysurgery, neurosurgery & many more.			
2	**Operational Requirement**			
2.1	The table must be mobile, electro hydraulic controlled with battery powered.			
3	**System Configuration**			
3.1	Operating table for major & minor surgery with accessories.			
4	**Technical Specifications**			
4.1	It should be an Electro Hydraulic table with 5section-Head Plate, Back Plate, Seat Plate, and Split Leg Plates with high quality Stainless Steel(CrNi steel) base and column. Bidders to provide quality certificates of stainless steel from original manufacturer or should be mentioned in the brochure.			
4.2	It should have different controllablefunctions that include OT Table ON/OFF, table heightadjustment, lateral tilt, back rest, Trendelenburg & Reverse Trendelenburg without moving the patient's.			
4.3	It should have self-leveling floor locks to compensate for uneven floors.			
4.4	The tabletop should be 100% radiolucent material & X-Ray access.			
4.5	It shall have removable antistatic mattress; it should be water-proof and can be washed by water directly; each jointshould be sealed and pad thickness 70 mm or more.			
4.6	The operating table weight should have maximum safe patient weight capacity of 200kg or more.			
4.7	The Table shall have accurate and smooth electro-hydraulic motion.			
4.8	All the joints and moving parts should be covered for safe positioning.			
4.9	Easy to operate			
4.10	Table must be able to work battery backup of at least 20 operations.			

4.12	Additional control panel provided on the table column, which can be used in case of failure of remote.			
4.13	OT table should have cut out design on the legside.			
4.14	It should have zero positioning on hand remote control.			
4.15	It should have longitudinal slide up to 300mm for free access to c-arm.			
4.16	Should have manual or remote-controlled kidney bridge function.			
4.17	**The table should have following technical specifications:**			
A	Overall length of the ot table not less than 2100mm.			
B	Width of the table top with side rail not less than 500mm.			
C	Tabletop height up and down without any padding 700mm - 1000mm or better			
D	Lateral Tilt (LeftandRight) :20º or better.			
E	Trendelenburg / Reverse Trendelenburg: not less than 25º.			
F	Back Plate up and down not less than:+75º/- 15º.			
G	Detachable Head plate up and down:+30º/- 90º .			
H	Gas Spring Adjustments Leg plate Up and Down: +15º/- 90º.			
I	Leg plates spread angle:180ºandsplit max.90º			
J	Manually by remote control Flex and Re-flex position not less than: 220º/110º.			
4.18	**The following accessories should be supplied along withthe OT table:**			
A	Anesthesia Frame, one piece with radial universal clamp With anaesthesia screen extension 1 Nos			
B	Arm board with rotation function, one piece with one heavyradial universal clamp, pad & two pieces of fasten belt a pair.			
C	Body Strap 1nos			
D	Heavy Body Supporter with clamp a pair			
4.17	**Terms &conditions**			
A	The Manufacturer shall have ISO13485 and must submit			
B	Must submit CE certificates & USFDA approved/**Listed** certificates and should comply with all international quality and safety regulations like EN/IEC 60601-1-2.			
C	The bidder shall submit original brochure ore-copy.			
D	On site repair and maintenance training to the user, biomedical engineers and technicians.			
E	Must Provide Comprehensive warranty for 2 Years.			

Technical Specification of Electrolyte analyzer

	Purchaser's Specifications	Bidder's Offer
S.NO	**electrolyte analyzer**	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Electrolyte analyzer is used to measure various types of ion concentration in Human blood.	
2	**Operational Requirements**	
2.1	Automatic Electrolyte analyzer that measures Na, K and Cl.	
3	**System Configuration**	
3.1	Electrolyte analyzer, complete unit with all standard accessories.	
4	**Technical Specifications**	
4.1	Measurement Principle: Electrolyte analyzer based on advanced ion selective electrode (ISE) technology.	
4.2	Sample volume: maximum of 150 µL.	
4.3	Throughput (approx.): Minimum of 60 samples per hour.	
4.4	Calibration: 1 or 2 point calibration	
4.5	Sampling type: Whole blood, serum, plasma and urine.	
4.6	Should have user friendly software with LCD touch screen or Display with keypad.Only Yes/No button is not acceptable.	
4.7	Should have incorporated printer and RS232 serial port.	
4.8	It should use closed package reagent with waste bag.	
4.9	Should have long life electrode and self-life of electrode is extended to maximum with activation.	
5	**Measuring range/ Resolution**	
5.1	K+: 1.5-10 mmol/L, Resolution 0.01mmol/L	
5.2	Na+: 60-200 mmol/L, Resolution 0.1 mmol/L	
5.3	Cl-: 60-200 mmol/L, Resolution 0.01mmol/L	
6	**Reproducibility (CV approx.):**	
6.1	K+: ≤ 2 %	
6.2	Na+: ≤ 1.5 %	
6.3	Cl-: ≤ 2%	
6.4	On board memory for approx. 120 tests records.	
6.5	Calibration mode: should have automatic and manual calibration provision.	
7	**Accessories, spares and consumables**	
7.1	All standard accessories, consumables and parts required to operate the equipment.	
8	**Operating Environment**	
8.1	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.	
8.2	Power supply: 220 - 240 VAC, 50Hz	
9	**Standards and Safety Requirements**	
9.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
9.2	Must Submit European CE (93/42 EEC Directives)/ CE-IVDR AND USFDA approved certificate.	

10	**User Training**	
10.1	Must provide user training (including how to use and maintain the equipment).	
11	**Warranty**	
11.1	Comprehensive warranty for 2 years.	
12	**Maintenance Service During Warranty Period**	
12.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
13	**Installation and Commissioning**	
13.1	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.	
14	**Documentation**	
14.1	User (Operating) manual in English.	
14.2	Service (Technical / Maintenance) manual in English.	
14.3	Certificate of calibration and inspection from factory.	

1. **Technical Specification of Dolphin Vibrator Massager**

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Dolphin Vibrator Massager for pain relief with powerful vibration.		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The unit should be like reference figure:		
		Reference Picture	

2. **Technical Specification of Kansya Thali Foot Massager**

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Temperature setting and controller Kansya Thali Foot Massager system		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The unit should be like reference figure:		

		Reference Figure	

3. Technical Specification of Hot water bag

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Hot Water Bag is made of high-quality rubber. Perfect for hot/cold water. Wide opening for easy filing. Ribbed surface helps maintain temperature. Soft, washable slip cover, improves circulation, Reduces pain. Natural relief for sore back, Arthritis, tight muscles, Menstrual cramps etc		
1.2	Outer Material: Rubber		
1.3	Surface Type: Natural		
1.4	Holding Time: 6-7 hr		
1.5	Pack of: 1		
1.6	Should have ISO/CE certified product.		
1.7	Comprehensive warranty for 1 years from acceptance.		
1.8	The unit shou[illegible]ence figure:		
		Reference Image	

4. Technical Specification of foot Bath super deluxe jets

S.N.	Purchaser's Specifications	Bidder's Offer
	Manufacturer	
	Brand	
	Type/Model	

	Country of Origin		
1	**Technical Description**		
1.1	Foot bath tub square shaped supper deluxe model single part, foot bath tub made of fibre glass food grade polymer, (frp/grp), marble gloxy finish, ivory colour, 4 mm thickness. Double side finishing (inside & outside), water inlet &outlet system, ½ inches pvc pipe inside for spray.		
1.2	Size: Approx. 25”x32”x21”		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		
		Reference Image	

5. Technical specification of Hip Bath 3 in one

S.N.	**Purchaser’s Specifications**	**Bidder's Offer**	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	3 in 1 Hip bath deluxe model, chair type square model, made of fibre glass food grade polymer (FRP/GRP), marble gloxy finish, ivory colour, 5 mm thick ness. Double side finishing, water Inlet and outlet system, 12 hydro adjustable jet, ½ HP pump with foot rest.		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The unit should be like below reference figure:		

		Reference Image	

6. Technical specification of Arm Bath super deluxe with jets

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Arm bath tub Ractangle shaped supper deluxe model single part, Arm bath tub made of fibre glass food grade polymer, (frp/grp), marble gloxy finish, ivory colour, 4-5 mm thickness. Double side finishing (inside & outside), water inlet &outlet system, ½ inches pvc pipe inside for spray.		
1.2	Size: approx. 40"x32"x44"		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		
		Reference Image	

7. Technical Specification of Hip Bath chair type Square Model

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Hip bath deluxe model, chair type square model, made of fibre glass food grade polymer (frp/grp).		
1.2	Marble glory finish, ivory colour, 5 mm thickness. one side finishing		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		
		Reference Image	

8. Spinal Spray Plane Type

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Size : Approx. 49"x32"x21"		
1.2	Made Of: Fibre Glass		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure		

		Reference Image	

9. Technical Specification of Spinal Spray Deluxe Sitting with jets

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Size: Approx. 30"x29"x56"		
1.2	Made Of: Fibre Glass		
1.3	Spinal spray (sitting), made of fibre glass food grade polymer(FRP/GRP), marble gloxy finish, with, ivory colour, 4 mm thickness, double side finishing, water inlet & outlet system, used 7hydro jets adjustable for any direction, built –in-water tank &1/2 HP pump with pressure control switch.		
1.4	Should have ISO/CE certified product.		
1.5	Comprehensive warranty for 1 years from acceptance.		
1.6	The unit should be like below reference figure		
		Reference Image	

10. Technical Specification of Spinal Spray Deluxe Laydown with jets

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Size: approx. 60″x28″x28″		
1.2	Made Of: Fibre Glass		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		
		Reference Image	

11. Technical Specification of Sun Bath Thermolium Sitting (laydown)

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	SUN BATH (THERMOLIUM) Laydown Thermolium laydown light therapy (chromo therapy) made of Fibre/Acrelic/Glass food grade polymer (FRP/GRP), color chocolate brown wood finish and ivory color (optionally as per customer demand), 1 inches wall thickness, in built puff in wall panel, double side finishing, with front single aluminum door one side open, four different color portable sliding acrylic glasses for therapy, one adjustable fibre glass stool.		
1.2	Size: Approx. 84″x34″x19″/27″		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		

		Reference Image	

12. Technical Specification of Digital Steam generator

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Local steam generator Nadi Sweden yenta with box, water capacity 10to 15 liter, fitted with safety pressure valve, steam flow control valve pressure gauge and minimum water level out-cut element for the safety of heater.		
1.2	It should be fitted with Digital temperature controller and Timer.		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		
		Reference Image	

13. Technical specification of sirodhara cum massage bed ss

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Load Capacity: Atleast 200 Kg		
1.2	Leg Material: Stainless Steel, preferably Square shape		
1.3	Legs: four SS		
1.4	Size: Approx.84"*33"*30"		
1.5	Table top Made up of: Fibre Glass		
1.6	Sirodhara Vessel: Brass approx. 2 Lt capacity.		
1.7	Should have ISO/CE certified product.		
1.8	Comprehensive warranty for 1 years from acceptance.		
1.9	The unit should be like reference figure:		
		Reference Image	

14. Technical Specification of Local Steam generator 10 ltr gas operated

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Local steam generator Nadi Sweden yenta with box, water capacity 10to 15 liter, fitted with safety pressure valve, steam flow control valve pressure gauge operated with gas heating procedure.		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The unit should be like below referance figure:		

		Reference Image	

15. Technical Specification of Local Steam Cabin set with attached adjust table stool

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Feature**		
1.1	Material: wooden or fibre glass with Attractive looks.		
1.2	Easy to wash & clean.		
1.3	Easy to move/ Light weight.		
1.4	With locking wheels.		
1.5	Size Approx. 45"x35"56" Height		
1.6	Attached with sitting adjustable stool with ss top.		
1.7	Should have ISO/CE certified product.		
1.8	Comprehensive warranty for 1 years from acceptance.		
1.9	The unit should be like below reference figure:		
		Reference Image	

16. Technical Specification of Massage Table (Deluxe) With Drawer

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Feature**		
1.1	Size: Approx.78"x30"x32"		
1.2	Made of: Wooden/Synthetic Leather		
1.3	At least 2 pull out drawer and two flapping door drawer		
1.4	Should have ISO/CE certified product.		
1.5	Comprehensive warranty for 1 years from acceptance.		
1.6	The unit should be like below reference figure:		
		Reference Image	

17. Technical Specification of Mud Tray set

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
1	**Technical Description**		
1.1	Category: Naturopathy / Nature Cure Hydrotherapy/Ayurvedic Panchakarma Equipment's Tag: Mud Tray Standard size.		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The unit should be like below reference figure:		

		Reference Image	

18. Technical Specification of Mattress

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
1	**Technical Description**		
1.1	Should be fit on sirodhara table made up of PU Foam of at least 50 density of 3" thick foam and covered with rexin lether.		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The u[illegible]gure:		
		Reference Image	

19. Technical Specification of Pillow

S.N.	**Purchaser's Specifications**	**Bidder's Offer**	
	Manufacturer		
	Brand		
	Type/Model		
1	**Technical Description**		
1.1	Should be used durng sirodhara and panchkarma procedureal table made up of PU Foam of at least 50 density of 3" thick foam and covered with rexin lether.		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		

1.4	The unit should be like below reference figure:		
		Reference Image	

20. Technical Specification of Cupping set

S.N.	Purchaser's Specifications	Bidder's Offer	
	Manufacturer		
	Brand		
	Type/Model		
1	**Technical Description**		
1.1	Cupping Set, 24 Cups Cupping Kit for Massage Therapy, Chinese Cupping Therapy Set with Magnetics, Professional Vacuum Cupping Set for Cellulite Reduction Muscle Pain Relief with Manual Pump		
1.2	This cupping cups includes 6 sizes, with large flat mouth cups (01, 02) for broad areas like back and thighs, U-shaped mouth cups (U3, U4) for curved parts such as neck and elbows, and small flat mouth cups (04, 05) for narrow sections like face and wrists. With this complete set, you can use cupping therapy on any body part.		
1.3	Should have ISO/CE certified product.		
1.4	Comprehensive warranty for 1 years from acceptance.		
1.5	The unit should be like below reference figure:		
		Reference Image	

21. Technical Specification of Foot rest for hip and spinal

S.N.	Purchaser's Specifications	Bidder's Offer
	Manufacturer	
	Brand	
	Type/Model	

1	**Technical Description**		
1.1	Category: Naturopathy / Nature Cure Hydrotherapy/Ayurvedic Panchakarma Equipment's Tag: Foot Rest as shown in below figure		
1.2	Should have ISO/CE certified product.		
1.3	Comprehensive warranty for 1 years from acceptance.		
1.4	The unit should be like below reference figure:		
		Reference Image	

22. Technical Specification of Full Emersion Bath Deluxe

S.N.	**Purchaser's Specifications**	**Bidder's Offer**	
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
1	**Technical Description**		
1.1	Immersion Bath Tub with fibre glass reinforcement.		
1.2	With Four Sides Skirting & Bottom Frame		
1.3	Size: Approx. Width 30 Inches, Length 72 Inches & Height 21 Inches		
1.4	Should have ISO/CE certified product.		
1.5	Comprehensive warranty for 1 years from acceptance.		
1.6	The unit should be like below reference figure:		
		Reference Image	

23. Technical Specification of T-pulley (Wall Mounting)

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	T- Pulley (Wall Mounting)		**Yes/ No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	**Description of Function**				
1.1	It is an exercise unit. It restores range of motion, build muscle tone, and improve circulation. Also helps to increase arm and shoulder strength and flexibility.				
2	**Operational Requirements**				
2.1	Compact in size & having good hand grip, easy to mount				
3	**System Configuration**				
3.1	Wall Mounted T- Pulley Set complete with wall fixing hardware.				
4	**Technical Specifications**				
4.2	Shall have 2 pulleys cord, rope and 2 handles.				
4.3	Shall come with wall fixing hardware.				
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 store and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.				
7	**Standards and Safety Requirements**				
7.1	Must submit ISO 9001 or ISO13485 **AND**				
8	**User Training**				
8.1	Must provide user training (including how to use and maintain the equipment).				
9	**Warranty**				
9.1	Comprehensive warranty for 1 years from acceptance				
10	**Maintenance Service During Warranty Period**				
10.1	Standard warranty conditions are applicable.				
11	**Installation and Commissioning**				
11.1	Supplier must accomplish proper commissioning of the equipment on site.				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
12	**Documentation**			
12.1	User (Operating) and/or Technical/Maintenance manuals to be supplied in English.			

24. Technical Specification of (IFT) Interferential Therapy Machine

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Mobile Interferential Therapy with Trolley		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	**Description of Function**				
1.1	A current therapy used in the treatment of circulatory disorders, range of motion, oedema and muscle spasms. Interferential current is a form of electrical therapy that delivers currents to deep tissues through the use of kilohertz-carrier-frequency pulsed or sinusoidal currents to overcome the impedance offered by the skin. It is a deeper form of TENS.				
2	**Operational Requirements**				
2.1	A choice of two or four pole treatment and have a facility to enable the user to set the "beat" frequency according to the condition being treated with rechargeable internal battery.				
3	**System Configuration**				
3.1	Mobile Interferential Therapy with trolley and complete with accessories.				
4	**Technical Specifications**				
4.1	Must have low & medium frequencies current for electrotherapy.				
4.2	2 & 4 pole with dipole vector field with TENS.				
4.3	Galvanic, Faradic MF surge & NME stimulation.				
4.4	Large programmable memory with pre-set programme.				
4.5	Carrier wave frequency adjustable between 2-10 KHz.				
4.6	Large LCD display for treatment parameter & option of CC/CV mode.				
4.7	Must be operable without mains power for at least 2 hours of active use.				
4.8	Must come with rechargeable battery and adapter.				
4.9	Must come with trolley on 4 swivel castors, of which 2 with breaks.				
4.10	Comprehensive warranty for 1 years from acceptance.				
4.11	Must submit ISO13485 **AND** CE certificate.				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
		Reference figure		

25. Technical Specification of Ultrasound Therapy Unit (Single Head)

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Ultrasound Therapy Unit (Single Head)		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	**Description of Function**				
1.1	Ultrasound uses a high frequency sound wave emitted from the sound head when electricity is passed through a quartz crystal. The sound waves cause the vibration of water molecules deep within tissue causing a heating effect. When the sound waves are pulsed, they cause a vibration of the tissue rather than heating. The stream of sound waves helps with nutrition exchange at the cellular level and healing. Ultrasound is helpful for ligament healing and clinically, for carpal tunnel syndrome, and muscle spasm.				
2	**Operational Requirements**				
2.1	Single head Ultrasound therapy unit, easy to use.				
3	**System Configuration**				
3.1	Ultrasound Therapy Unit (Single Head) complete with accessories.				
4	**Technical Specifications**				
4.1	Microprocessor based with Continuous & Pulsed modes.				
4.2	Output power approx. 15W in continuous mode and approx. 20W in pulse mode.				
4.3	Pulse frequency min. 100Hz.				
4.4	Output frequencymin. 1 MHz.				
4.5	Timer 0-15 minutes, pre-settable.				
4.6	Time adjustment up to 99 minutes.				
4.7	Two digital display meters indicate the output in w/cm².				
4.8	Patient safety circuit.				
4.9	Comprehensive warranty for 1 years from acceptance.				
4.10	Must submit ISO13485 **AND** CE certificate.				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
		Reference figure		

26. Technical Specification of Shoulder Wheel

S.N.	Purchaser's Specifications		Bidder's Offer	
	Shoulder Wheel			
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	**Technical Specifications**			
1.1	Fitted with 8 handles on a tubular circle of 100 -110 cm diameter.			
1.2	Mounted on bush bearing and fitted with calibrated sensitive controllable resistance mechanism.			
1.3	360 degree scale allows revolution to be read from either direction.			
1.4	Variable arc of motion calibrated from 30 cm to 80cm dia attachment to raise or lower the wheel by 50 cm.			
1.5	Mounted on hardwood wall boards			
1.6	Should have ISO/CE certified product.			
1.7	Comprehensive warranty for 1 years from acceptance.			
1.8	The unit should be like below reference figure:			
			Reference Image	

NOTE: The supplier must submit the original brochure or e-copy to verify the technical parameters, and must be clearly mentioned and highlighted.

Bed, general

S.N.	Purchaser's Specifications	Bidder's Offer
	Bed, general	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	**Description of Function**	
1.1	A hospital bed is a bed specially designed for hospitalized patients in need of patient ease. These beds have special features both for the comfort and well-being of the patient and for the convenience of hospital staff.	
2	**Operational Requirements**	
2.1	The patient bed shall be made of solid steel construction with anti-corrosive and antirust treated baked hard epoxy powder coating	
3	**System Configuration**	
3.1	Hospital Bed epoxy powder coated	
4	**Technical Specifications**	
4.1	Bed base shall be anti-corrosive and antirust treated epoxy powder coated welded steel bar or epoxy powder coated 18G perforated sheet top to improve ventilation.	
4.2	The patient bed shall be fixed height with 2 sections where the backrest section could be elevated by mechanical hand crank located at the foot-end of the bed.	
4.3	Shall have 4 IV rod receptacles and mosquito net pole receptacles at the 4 corners	
4.4	It shall come with one dual hook anti-corrosive and antirust treated epoxy powder coated or 304 grade stainless steel IV rod.	
4.5	Shall have provisions to fix urinary bag on both sides.	
4.6	All 4 legs of the hospital bed shall be capped with heavy duty rubber footings.	
4.7	Bedhead and foot-end panel (head and foot bows) shall be made of either between anti-corrosive and antirust treated epoxy powder coated vertical tubular tube	
4.8	Both bedhead and foot-end panel shall be detachable.	
4.9	The height of the bedhead panel: not less than 1060mm from floor.	
4.10	The height of the foot-end panel: not less than 820mm from floor.	
4.11	Overall approximate dimension: not less than 1980mm length, 910mm width, 600mm height	
5	**System Configuration Accessories, spares and consumables**	
5.1	• Mattress, appropriate as per bed-1 pc • Pillow-1 pc • Bedside Locker-1	•
5.2	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer. Bidders shall specify, in a separate Excel worksheet, the quantity and details of any items included in this offer which have not been specified in this Technical Specifications Form.	
6	**Operating Environment**	

S.N.	Purchaser's Specifications	Bidder's Offer
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO 13485:2016/AC:2007 **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Not applicable.	
9	**Warranty**	
9.1	Warranty for 2 years after acceptance	
10	**Maintenance Service During Warranty Period**	
10.1	Standard warranty conditions are applicable.	
11	**Installation and Commissioning**	
11.1	Must supply preassembled unit, ready to use.	
12	**Documentation**	
12.1	Users/Instructions manual shall be provided in English.	

Technical Specification of Hot Air Oven

SN	Purchaser's Specifications	Bidder's offer
	Purchaser's Specifications	
	Hot Air Oven (Small)	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	**Description of Function**	
1.1	Hot Air Oven are electrical devices which use dry heat to sterilize.	
2	Operational Requirements	
2.1	Microprocessor based digital system.	
3	**System Configuration**	
3.1	Hot Air Oven with complete accessories	
4	**Technical Specifications**	
4.1	Must be made of double walled chamber, Stainless Steel SS 304 grade. The bidder must demonstrate the quality of the construction materials, and if any deviations are found, rather than being asked for, they will be rejected.	
4.2	Must have Digital PID temperature controller with timer and alarms.	
4.3	Door gaskets shall be made of Silicon.	
4.4	Glass window in-built into the door for easy viewing of samples	
4.5	Shall have variable microprocessor based digital temperature controller with digital display.	
4.6	Capacity: greater or equal 30 Ltr	
4.7	Shall have provision of air ventilations.	
4.8	Temperature variation +/- 1 °C	
4.9	Temperature Range: Ambient to 150 °C or better	
5	**Accessories, spares and consumables**	
5.1	Accessories: Thermometer-01 no. • Door gasket- 01 no.	
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 must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Power supply, Climate, temperature and relative humidity.	
6.2	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs. The power cable must be at least 3 metres long.	
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	Must be compliant with IC 61010-1 :(or any international equivalent e.g. EN/UL 61010) covering safety requirements for electrical equipment for measurement control and laboratory use.	
8	**User Training**	

8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 1 year after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**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	**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.	

Technical Specification of Indirect Ophthalmoscope (LED light)

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Indirect Ophthalmoscope (LED light)	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Indirect Ophthalmoscope is used to observe and examine the fundus of eye as well as to be used in ophthalmic surgeries and in treatment of eye diseases like cataract, myopia and others.			
2	**Operational Requirements**			
2.1	Binocular indirect ophthalmoscope, shall work on rechargeable battery.			
3	**System Configuration**			
3.1	Indirect Ophthalmoscope with LED light, complete unit and with all standard accessories.			
4	**Technical Specifications**			
4.1	It shall have ergonomically designed light weight, adjustable, soft cushioning, non slip head band.			
4.2	It shall have facility for precision viewing.			
4.3	It shall have facility for all pupil features.			
4.4	It shall have synchronized convergence and parallax adjustment system.			
4.5	It shall have adjustable interpupillary distance approx. 50mm to 70mm.			
4.6	Apertures: Integrated to choose from small, medium and large.			
4.7	Filters: Integrated filters to choose from red filter, cobalt blue filter, yellow filter.			
4.8	It shall have diffuser filter for brightening the illumination.			
4.9	It shall have locking facility with protect mechanism for aperture and filter adjustment levers to the desired position.			
4.10	**Illumination:** • 6V, 1-3watt or even lower white light LED. • Uniform brilliant white light. • Colour temperature: 4000-4500 K . • CRI > 90-92.			
4.11	The life span of LED shall be at least 10,000 hours of operation.			
4.12	It shall have illumination control through head band.			
4.13	It shall operate on Li-Ion rechargeable battery of suitable capacity with LED indicators. Shall provide battery charger/transformer along with connecting cable & extension cord of 3metres length.			
4.14	Shall come with: • Teaching mirror. • Marking pencils. • Fundus chart. • Large & small scleral depressor.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** • Spare Li-ion rechargeable battery: 01 set.			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	• Carrying case: 01 no. • Antireflective coated 20D lens: 02 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	**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	Shall work on rechargeable battery. Battery charger with AC adaptor shall be provided and it shall be compatible with power supply of 220-240 VAC, 50Hz.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
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 and corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper commissioning of equipment onsite.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted and also must submit original technical brochure. Failure in doing so may lead to rejection of bid from technical committee.

S.N.	Purchaser's Specifications	Bidder's Offer
	Binocular Microscope Compound	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Compound microscopes consist of two or more than two magnifying lenses. One can view individual cells, even living ones. It has high magnification.	
2	**Operational Requirements**	
2.1	Binocular compound microscope with illumination system is required.	
3	**System Configuration**	
3.1	Binocular Microscope Compound, complete system with complete accessories.	
4	**Technical Specifications**	
4.1	**Body:** Binocular, sturdy, stable base body with focus adjustment controls.	
4.2	**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 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.	
4.3	**Objective:** Three objectives10x, 40x, 100x. 10x and 40x objectives must have numerical apertures of 0.25 and 0.65 respectively and must be of spring loaded type or otherwise. 100x 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. Unbreakable containers to be provided for storing the objectives. All objectives must be wide field, achromatic and par focal. Making for the Objectives: Each objective must be engraved with the following information: • Name of the manufacturer • Magnification and numerical aperture, for example, 10x/0.25 • 100x objective must be engraved with the word 'Oil'. Changing from one objective to another or reintroducing the same objective by rotation of the	

S.N.	Purchaser's Specifications	Bidder's Offer
	nosepiece, the object at the centre of the field must not appear displaced by more than 0.02 mm in the object plane in any direction.	
4.4	**Nose Piece:** Revolving nose piece to accommodate a minimum of three 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.	
4.5	**Stage:** Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine Vermeer 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).	
4.6	**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).	
4.7	**Sub-stage illuminator:** The system must have a build-in variable light source (Illuminator). This light source must have a 20 W, 6 V Halogen lamp or equivalent LED. The circuitry for the light source must include a constant voltage supply. The system must be provided with 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.	
4.8	**Power Supply:** Voltage 220 V, 50 Hz AC. Must have one on-off power switch, 3 core power cord with a 3 point male plug. The system must have an inbuilt protective/ safety device to withstand fluctuations of voltage from 140 V to 280 V.	
4.9	The fuse for the halogen lamp must be easily accessible to the operator.	
4.10	A Plano-concave mirror in fork mounting must be supplied which would be attachable to the base for field use (where power is not available).	

S.N.	Purchaser's Specifications	Bidder's Offer
4.11	The Illuminator must have a build-in field diaphragm for Kohler illumination.	
4.12	**Eye Piece Tubes:** Binocular eye piece tubes, inclined at 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.	
4.12	**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.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** • 100x oil immersion objective – 01 no. • Halogen bulb, (6volts, 20w) or equivalent LED – 6 nos. • Fuses – 6 nos. • 25 ml immersion oil bottle – 01 no. • Roll of lens tissue paper – 1 roll • Lens cleaning solution – 100 ml. • Anti-static cleaning brush – 01 no.	•
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 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 fitted with appropriate plug. The power cable must be at least 3 metre in length.	
6.3	Suitable voltage corrector/stabilizer shall be supplied.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	

S.N.	Purchaser's Specifications	Bidder's Offer
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**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	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	

Technical Specification of Ophthalmoscope, Direct

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Ophthalmoscope, Direct		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Direct ophthalmoscope is an instrument designed to visualize the interior of the eye, with the instrument relatively close to the subject's eye and the observer viewing an upright magnified image.				
2	**Operational Requirements**				
2.1	Compact system, operate on rechargeable battery.				
3	**System Configuration**				
3.1	Direct Ophthalmoscope, complete unit with all standard accessories.				
4	**Technical Specifications**				
4.1	Light source: Halogen/Xenon bulb.				
4.2	Shall have dust free sealed optics.				
4.3	Shall have red free and cobalt blue filter.				
4.4	Shall allow one-hand operation for streak focus and 360º streak rotation.				
4.5	Shall have universal convertible handle.				
4.6	Shall have Nickel- Cadmium/Lithium ion rechargeable battery.				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • Spare Halogen/Xenon Bulb: 01 set.(extra) • Carrying case: 01 no.				
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 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	Shall work on rechargeable battery. Battery charger with AC adaptor shall be provided.				
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.				
8	**User Training**				
8.1	Must provide user training (including how to use and maintain the equipment).				
9	**Warranty**				
9.1	Comprehensive warranty for 1 year after acceptance.				

10	**Maintenance Service During Warranty Period**			
10.1	Standard warranty conditions are applicable.			
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper commissioning of equipment onsite.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			

Technical Specification OT Light, Ceiling Mounted

S.N.	Purchaser's Specifications	Bidders Details		
	OT Light, ceiling mounted	**YES/NO**	**Page number of reference documents**	**Remarks**
	Manufacturer:			
	Brand:			
	Type / Model:			
	Country of Origin:			
2	**Description of Function**			
2.1	Operation theatre lights provide cool, shadow free light and have special technology and filters to provide the same.			
3	**Operational Requirements**			
3.1	Ceiling mount operating light with double dome.			
4	**System Configuration**			
4.1	Ceiling mounted, Double Dome multi-color latest LED Technology.			
5	**Technical Specifications**			
5.1	Shall be microprocessor-based LED latest technology, shadow lessoperating light field with two units, one major dome and one satellite dome.			
5.2	It shall have 360 deg rotation of domes/ light heads / arms for unlimited positioning of light heads.			
5.3	Shall have multi-Color high performance LEDs with life time more than 50,000 hours of operation. Must be mentioned in catalogue.			
5.4	The LEDs must be of multicolor having the feature of color mixing within the dome itself and shall provide homogeneouslight. In case of LED failure, each LED shall be individually replaceable to minimize the cost of replacing the wholemodule.			
5.5	Shall have multifunctional Sterile/ Autoclavable handle			
5.6	Shall have Capacitive Touch control panel for light focusing adjustment Fixed on the dome or arms			
5.7	The intensity of the light should not vary during the surgery, it should be uniform.			
5.8	Light intensity shall be at least 160,000 lux for the major dome and 160,000 lux for the satellite dome at 1mtr.			
5.9	Lighting Depth should be >1100mm.			
5.10	Color rendering index shall not be less than 96 in all color temperature adjustments.			
5.11	Spot diameter: at least 150-350 mm or better			
5.12	Variable color temperature: 3,500~5,000 Kelvin (adjustable color temperature).			
6	**Accessories, spares and consumables**			
6.1	All standard accessories, consumables and parts required to operatethe equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			

7	**Operating Environment**			
7.1	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.			
8.0	**Power supply**: 220 - 240 VAC, 50Hz fitted with appropriate plug.			
9	**Standards and Safety Requirements**			
9.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND			
9.2	European CE (93/42 EEC Directives) and USFDA class I medical device registration certificate/ premarket notification/ approval/ MDSAP/ PMDA approved product certificate.			
10	**User Training**			
10.1	Must provide user training (including how to use and maintain the equipment).			
11	**Warranty**			
11.1	Comprehensive warranty for 2 years.			
11.2	Maintenance Service During Warranty Period			
11.3	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required. (written document)			
12	**Installation and Commissioning**			
12.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisitesfor installation to be communicated to the purchaser in advance, in detail.			
13	**Documentation**			
13.1	User (Operating) manual in English.			
13.2	Service (Technical / Maintenance) manual in English.			
13.3	Certificate of calibration and inspection from factory			

Technical Specification of Bed Side Patient Monitor(5-Para)

	Purchaser's Specifications	**Bidder's Compliance Sheet**		
	Bed Side Patient Monitor	**Yes /No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of origin			
1	**Description of Function**			
1.1	A bedside multi-function patient monitor to monitor physiological parameters of all patient categories, at bedside, NICU, ICU OT and applicable for Adult, Pediatric and neonatal application.			
2	**Operational Requirements**			
2.1	It shall operate on AC power supply as well as built-in battery.			
3	**System Configuration**			
3.1	Patient monitor 5 parameter with ECG, Resp., SpO2, NIBP, Temp.			
3.2	All accessories, consumables, wall mounts and etc. required for monitoring of physiological parameters specified herein.			
4	**Technical Specifications**			
4.1	High resolution at least 12" high resolution TFT colour touch display with LED backlight.			
4.2	Display of up to 5 physiological parameters without the need for external devices			
4.3	Display waveform: ECG, SpO2, pulse wave, respiration etc.			
4.4	Numeric data display: heart rate / pulse rate, respiration rate, NIBP and current time of NIBP measurement.			
4.5	the screen layout of the device should include Message indication area, Waveform area, Parameter area and Status-bar.			
4.6	Adult, Pediatric and neonatal measurement mode			
4.7	simultaneously display of minimum at least 6 waveforms			
4.8	Should have Lithium Ion battery to allow at least 4 hours for continuous monitoring with AC power indicator and Working power supply indicator			
4.9	**ECG:**			
	Should be able to monitor ECG through 5-Lead patient cable or 3-lead patient cable			
	Should be able to display Lead I, II, III, aVR, aVL, aVF,			
	Should be able to monitor heart rate from 15-200 bpm or more			
	HR measuring accuracy: ±1% or ±2bpm			
4.10	**SPO2**			
	Should use digital technology for monitoring SPO2			
	Should have measuring range form 0-100 %			
	SpO2 measuring accuracy: 2% for range from 70% to 100%			

4.11	**NIBP:**			
	Should have oscillometric method for measurement of NIBP			
	Mode: Manual, Auto, Continual			
	Measuring time: <30 seconds (typical adult cuff)			
4.12	**Respiration:**			
	Method: impedance between R-F (RA-LL)			
	Respiration Rate: 0-150 rpm or more			
	RR measuring accuracy: ±5% or ±2rpm			
4.13	**Temperature:**			
	Channel-02			
	Measuring range: 21~45 degree Celsius or better			
	Measuring accuracy: ±0.2°C for range from 25.0°C~45.0°C			
5	**Accessories, spares and consumables**			
5.1	5 Lead ECG cable for adult and 3 lead cable for neonate, 1 set each			
5.2	SpO2 connector and probe adult & neonate, 1 set each			
5.3	NIBP connection hose and cuff adult & neonate, 1 set each			
5.4	Skin Temperature probe, 1 set			
5.6	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: 100 – 240VAC, 50-60Hz fitted with appropriate plug. The power cable must be at least 3m in length.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 or better for medical devices			
7.2	Must submit European CE (93/42 EEC Directives) Approved product certificate certified by authorized body, Self-declared CE will not be valid			
7.3	Must submit USFDA 510(k) approved product certificate			
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 2 years after acceptance.			
9.2	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required			
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	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			

Technical Specification of Streak Retinoscope

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Streak Retinoscope		**Yes/No**	**Ref Docs Page No**	**Remarks**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Streak Retinoscope an apparatus that determines the refractive power of the eye by observing the lights and shadows on the pupil when a mirror illumines the retina.				
2	**Operational Requirements**				
2.1	Portable and Rechargeable battery operated, Homogenous LED illumination for precise streak image quality offers an easy and quick observation of the fundus reflex.				
3	**System Configuration**				
3.1	Streak Retinoscope portable, complete unit with all standard accessories.				
4	**Technical Specifications**				
4.1	External focusing sleeve that's easy to grip and easy to manipulate.				
4.2	Crossed-linear polarizing filter.				
4.3	Magnetic age-appropriate targets for dynamic retinoscopy.				
4.4	Allows easy one-hand operation for streak focus and 360° streak rotation.				
4.5	Interchangeable – to plane mirror and concave mirror mode by sleeve Movement.				
4.6	Fiber optic illuminated red and green fixation points.				
4.7	Maintenance free, dustproof, LED with virtually unlimited hours of working life.				
4.8	Should have Para Stop Setting.				
4.9	Should have stepless dimming from 3% to 100% with practical one-finger operation.				
4.10	Ergonomic shape, protects the examiner's orbita from stray light.				
4.11	Should be battery operated.				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** a. Carrying case b. Bulb holder c. Bulb-cover d. Detachable brow rest for spectacle-wearers e. Fixation cards with holder for dynamic retinoscopy				
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 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	Shall work on rechargeable battery. Charger to be provided if integrated charger is not there.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485: for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
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 corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper commissioning of equipment onsite.			
12	**Documentation**			
12.1	User (Operating)/ Service (Technical / Maintenance) manual in English.			

Technical Specification of Slit Lamp Bio Microscope

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Slit Lamp Bio Microscope		**Yes/ No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	The slit lamp is an instrument consisting of a high-intensity light source that can be focused to shine as a slit. It is used in conjunction with a microscope.				
2	**Operational Requirements**				
2.1	A Binocular Bio microscope with a slit lamp system for providing desired types of illumination for various types of examination of the eye.				
3	**System Configuration**				
3.1	Slit Lamp Bio Microscope, complete unit with all standard accessories.				
4	**Technical Specifications**				
I	**Microscope:**				
4.1	Type: Galilean converging binocular stereo microscope				
4.2	Magnification Changer: Drum rotation				
4.3	Working Distance: at least 100mm				
4.4	Objective Lens Focal Length: approx. f 100mm				
4.5	Eye Pieces(Large Optics): approx..12.5x				
4.6	Total Magnification: at least 6x, 10x, 16x, 25x, 40x				
4.7	Real Field of View: at least 43, 27 16, 11, 7 mm				
4.8	Inter Pupillary Distance: at least 55mm-75mm				
4.9	Diopter Adjustment Range: at least +/-6D				
II	**Slit Illumination Section:**				
4.10	Slit image Width: 0- 14 mm continuously variable.				
4.11	Slit image Height: 0-14 mm continuously variable.				
4.12	Illumination Field Diameter: at least 0.2mm, 2mm, 3mm, 4mm, 6mm, 8mm, and 14mm				
4.13	Angle of Slit (rotation): 0-180°				
4.14	Slit Inclination: 5°, 10°, 15°, 20°				
4.15	Filters: Cobalt Blue, Red free (Green), Heat absorbing or other N.D filters				
4.16	Light source: Halogen lamps(12V-30W Halogen lamp/3.4 V-700 mAh LED)				
4.17	Operation: 3 Dimensional single handed operation				
4.18	Intensity control of illumination: Low, Medium and High.				
4.19	**Table Top Dimension:** Mechanism and Amplitude of each movement in millimetres to be specified by Bidder				
4.20	**Chin Rest Assembly:** Type: Mechanical (Details to be specified by Bidder) Fixation light assembly: Range to be specified by Bidder				
4.21	**Table Type:** Mechanical, Hydraulic/spring balance type / Motorized.				
4.22	Should have provision to fit Applanation Tonometer				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
5	**Accessories, spares and consumables**			
5.1	**Accessories:** • Halogen bulbs: 02 nos. • Fuses: 04 nos. • Set of mirrors: 01 sets • Focusing test rod & dust cover-1 nos. • Allen Key- 01 set • Slit lamp dust cover- 1 nos. • Breath shield- 01nos. • Rack guard: o1 set • Chin rest pins: 2 nos. • Chin rest paper pack: 01 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	**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 – 240V AC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.			
6.3	Suitable UPS with maintenance free batteries, voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 2 years.			
10	**Maintenance Service During Warranty Period**			
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**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	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted and also must submit original technical brochure. Failure in doing so may lead to rejection of bid from technical committee.

Technical Specification of Snellen Vision Drum for Near and Distant

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Snellen Vision Drum for Near and Distant		**Yes/ No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Eye distance vision illuminated drum. Drum is strong, Sturdy and durable with metal body and plastic brackets. It is internally printed (according to snellen chart). Square in shape with the automatics micro switch				
2	**System Configuration**				
2.1	Snellen vision Drum for Near and Distant, complete unit with all standard accessories.				
3	**Technical Specifications**				
3.1	Drum is strong, sturdy and durable with metal body and plastic brackets It is internally printed according to snellen chart.				
3.2	Square in shape with the automatics Micro switch.				
3.3	Near vision test type for Illiterates and children. Dotts, Rings, Animals, Numericals. Apparatus has been scientifically designed to eliminate stress on the eyes and makes reading easier through illuminated panels				
3.4	A bracket is also provided which can be fixed on the wall				
3.5	It's automatically gets illuminated when lifted from the bracket and switches off when placed on it				
3.6	Test type charts for English & Hindi alphabets.				
3.7	C Type letters for illiterates.				
3.8	Color: Black & White				
3.9	Handling: Non-Portable				
3.10	Size: approx..8" x 10" x 27"				
3.11	Light fitted in the instrument.				
4	**Accessories, spares and consumables**				
4.2	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).				
5	**Operating Environment**				
5.1	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.				
5.2	Power supply: 220 – 240V AC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.				
6	**Standards and Safety Requirements**				
7.1	Must submit ISO13485 or CE approved product certificate				
7	**User Training**				
7.1	Must provide user training (including how to use and maintain the equipment).				
8	**Warranty**				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
8.1	Comprehensive warranty for 1 years.			
9	**Installation and Commissioning**			
9.1	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	**Documentation**			
10.1	User (Operating) manual in English.			

Technical Specification of Hematology Analyzer, 3 part differential

SN	Purchaser's Specifications	Bidder's Offer
	Hematology Analyser, 3 part differential	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1.	Automated hematology analyzer used for determination of a range of parameters in blood analysis.	
2	**Operational Requirements**	
2.1.	Automatic blood cell counter that measures minimum 18 parameters including 3-part differential of WBC is required	
3	**System Configuration**	
3.1	Hematology Analyser, 18 parameter, complete unit with all standard reagents, consumables and accessories.	
4.	**Technical Specifications**	
4.1.	Measurement principal: electrical impedance method for WBC, WBC Diff, RBC, MCV, PLT and Cyanide Free Colorimetric method for HGB	
4.2.	Sample size: Approx. 10ul.	
4.3.	Throughput: 60 samples per hour or more.	
4.4.	Determination: WBC, RBC, HGB HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT. MPV, PCT PDW -CY, PDW-SD, P-LCR, P-LCC, LYM#, LYM%, MID #, MID%, Gran# and Gran % 3 Histograms of WBC, RBC & PLT	
4.5.	Dual counting chamber: WBC~Chamber 100um and RBC/PLT~70um	
4.6.	Accuracy & Precision (CV) : WBC ≤ 2.0%, RBC ≤ 1.5%,HGB ≤ 1.5%,MCV < 0.5%, PLT ≤ 4%	
4.7.	Calibration: Manual and Automatic modes.	
4.8	Linearity Range for Measured Parameter WBC: 0 to 300 x 10^3 /L RBC: 0 to 8.0 x 10^6/L	

	HGB: 0 to 25g/dl PLT: 0 to 3000 x 10^3/L HCT: 0 to 65%	
4.9	Shall have self-test capability and Automatic Flushing System to remove blockage.	
4.10	Display: LCD type of 8" or more screen with facility of assistance messages and error	
4.11	Shall have self-test facility of sample ID, date and time are reported with test results	
4.12	Shall have printing facility through inbuilt thermal printer, paper width of 55mm or more and Various printout formats	
4.13	Shall have built-in RS232, USB 2.0 or equivalent port for allowing data transfer.	
5.	**Accessories, spares and consumables**	
5.1	All standards accessories, consumables and parts required to operate the equipment, including all standard tools and clearing 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 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: 220-240V AC, 50Hz fitted with appropriate plug type D (3 pins). The power cable must be minimum 3 meters long.	
7.	**Standards and Safety Requirements**	
7.1.	Must submit IS013485:2003/AC: 2007 for Medical Devices AND	
7.2	CE (93/42 EEC Directives) and USFDA approved product certificate.	
7.3.	Shall meet IEC 61010-2-081 safety 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.	**User Training**	
8.1.	Must provide user training (including how to use and maintain the equipment).	
9.	**Warranty**	
9.1.	Comprehensive warranty for 2 years from date of installation.	
9.2.	After warranty period, supplier should supply spare parts for minimum 5 years. (10 be declared with a letter of commitment in the name of purchaser)	
10.	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.	

11.	**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.	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	Certificate of calibration and inspection, from factory.	

	Purchaser's Specifications	Bidder's Offer
	Refrigerator cum Deep Freezer	
	Manufacturer	
	Brand	
	Model	
	Country of Origin	
1	**Description of Function**	
1.1	Refrigerator cum deep freezer maintains two distinct temperature zones. The refrigerator zone is for chilling above zero and freezer zone is for sub-zero temperatures.	
2	**Operational Requirements**	
2.1	Fridge is required at temperatures +5 °C to +15 °C and Freezer to maintain - 10 °C to - 20 °C.	
3	**System Configuration**	
3.1	Laboratory grade Refrigerator system with Deep Freezer and complete unit.	
4	**Technical Specification**	
4.1	Storage Capacity/Volume: Fridge/refrigerator: >=180 liters; freezer: >=60 liters. Total >=240 liters	
4.2	**Construction:** • Internal: Stainless steel, • External: Corrosion resistance • Solid door with lock & keys • Upright trays.	
4.3	Type: Compression cycled, CFC-free refrigerant preferably R-134a (both for refrigeration and insulation).	
4.4	Should be easy and convenient to use	
4.5	Individual display for temperature inside the freezer and the refrigeration compartment.	
4.6	Separate closing of Refrigerating chamber and freezing chamber.	
4.7	Shall have adjustments for uneven bases. The adjustments must be easy to use like rotating a screw at the legs in the base.	
4.8	Spill proof adjustable shelves/drawers.	
4.9	Control panel with digital display.	
4.10	Humidity controller in both the compartments.	

4.11	Safety: High/ low temperature alarm, sensor fault alarm, door open alarm, power failure alarm etc.	
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 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.	
6.3	Shall supply suitable voltage corrector/stabilizer with the unit.	
7	**Standards, Safety and Training**	
7.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 AND	
8	**User Training.**	
8.1	Must provide user training (including how to use and maintain the equipment)	
9	**Warranty**	
9.1	Comprehensive warranty for 1 year after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**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	**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.	

	Technical Specification of Semi-Automated Bio-Chemistry Analyzer	
	Purchaser's Specifications	Bidder's Offer
	Semi-Automated Bio-Chemistry Analyzer	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
	The Semi-automated Bio-chemistry Analyzer measures biochemical indexes by analyzing blood and other body fluid, then combines with other clinical information, to help diagnose disease, evaluate organs function, identify disease gene and determine the norm for future therapy.	
2	**Operational Requirements**	
2.1	Semi-automated Chemistry Analyzer with built in thermal printer.	
2.2	User programmable memory for up to 150 test and minimum 10,000 sample test results.	
3	**System Configuration**	
3.1	Semi-automated chemistry Analyzer with inbuilt thermal printer data processor & LCD display, screen of at least 7"	
4	**Technical Specifications**	
4.1	Light Source : Quartz Halogen Lamp or LED	
4.2	Wavelength Range: Approx. 340 - 600 nm.	
4.3	Wavelength Selection: Automatic	
4.4	Photometric Range: Approx. 0 to 3.0 Absorbance.	
4.5	Calculation Modes: Should have at least 5 calculation modes like • Absorbance/concentration • End point • Two points • Kinetic • bio chromatic	
4.6	• Incubation Time 1 to 999 second. • Interval Time 3 to 999 second	
4.7	Quality Control - At least 2 controls per test.	
4.8	Calibration method- should have facility of calibration of at least factor, calibrator, multipoint calibration.	

4.9	Flow Cell- Temperature control by Peltier element with ambient temperature if 25, 30,37 degree Celsius.	
4.10	Incubator- Built-in minimum 10 incubation position with 37 degree Celsius, PID controlled.	
5	**Accessories, spares and consumables**	
5.1	Accessories: • Trial kits for various parameters, multi-calibrators and multi controls. -01 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	**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 meter in length.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical-Desires AND	
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.	
	Shall meet IEC 61010-2-081 safety 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	**User Training.**	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	**Warranty**	
9.1	Comprehensive warranty for 2 years from acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.	
11	**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	**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 number and costing.	

Technical Specification of Ophthalmic Instrument

S.N.	Name of item	Standard	Manufacturer/ Brand	Model/ Size	Bidder's Compliance/ Remarks
1.	**Punctum dialator**	Standard quality and Size, having ISO/CE certified product.			
2.	**Punctal canula**	Standard quality and Size, having ISO/CE certified product.			
3.	**Epilation forceps**	Standard quality and Size, having ISO/CE certified product.			
4.	**Chalazion forceps**	Standard quality and Size, having ISO/CE certified product.			
5.	**Eye speculum**	Standard quality and Size, having ISO/CE certified product.			
6.	**Desmarres lid retractor**	Standard quality and Size, having ISO/CE certified product.			
7.	**Copper ball thermal cautery**	Standard quality and Size, having ISO/CE certified product.			

Technical Specification of ENT Treatment unit

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Treatment unit for ENT		**Yes/ No**	**Ref Docs Page No.**	**Remark**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
	ENT Treatment Unit is an examination and diagnosis unit for ENT specialist. It can maximize the user's treatment capability to carry out any complicated treatment.				
2	**Operational Requirements**				
2.1	Easy to use, durable and reliable ENT treatment unit				
3	**System Configuration**				
3.1	The system consists of: • Main Unit • Doctor Chair/stool with adjustable height • Patient Examination and treatment chair				
4	**Technical Specifications**				
I	**Main Unit(ENT treatment unit):**				
4.1	Complete SS modular system with wheels.				
4.2	Noiseless high power atleast 800 mmHg power suction with automatic switch				
4.3	Built in light source at least 15V/150 W dual outlet with brightness control.				
4.4	Built in suction machine with suction gauge (Twin Jar)				
4.5	Should have Nasal Cautery with temperature control.				
4.6	Should have anti-fog device.				
4.7	Ear sprayer gun with bottle and automatic on/off system.				
4.8	Nose sprayer gun with bottle and automatic on/off system.				
4.9	Throat sprayer gun with bottle and automatic on/off system.				
4.10	Disinfection endoscopic holder with one set of disinfection container.				
4.11	Mini otoscope				
4.12	Led high power digital light source -3 with universal fiber optic -3 for each unit				
4.13	Iris focusable fiberoptic headband (head light) with headband SS holder-3				
4.14	Should have adjustable led lamp to be used with conventional ENT examination head mirror to examine patient.				
4.15	Head mirror with adjustable rubber band-2				
4.16	Should have movable strong wheels				
4.17	Should have movable monitor arm with monitor				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
4.18	Should have vertical X-ray viewer.			
4.19	Should have cabinet with 3 drawers and sterilisable airtight pack.			
4.20	Should have LED monitor at least 21" with connection to endoscope and HD recording system with camera.			
4.21	HD camera system compatible with recording system and endoscope supplied.			
II	**Doctor's chair:**			
4.22	Doctor chair should have pneumatic operated, 5 caster wheels and height adjustable with arm rest adjustable.			
III	**Patient unit:**			
4.23	Patient unit electrical operated ENT examination and treatment chair with electrical/hydraulic height adjustment. lift 20cm, with foot switch remote control			
4.24	The upper part is easily all round swivelling and fixable by an arresting brake, the tall backrest is adjustable forward beyond the vertical line, backwards it can be declined slightly more than the horizontal line, without any special assistance, the patient immediately sits down in an optimum position for examination.			
4.25	By the synchronous coupling of the back rest to the foot support the chair can be quickly changed in to a long and solid couch, the arm rests made of polyurethane, can each separately be swivelled off backwards.			
IV	**Technical data:**			
a.	Weight: about 95kgs.			
b.	Width: about 60cm			
c.	Height: (upper edge back rest) lowest position 120cm			
d.	Depth: total approx..75cm			
e.	Depth of the seat: approx..42cm			
f.	Height of the seat:52-72cm			
g.	Power supply line 220v/50hz			
V	**OPD Instruments:**			
a.	Thudicums nasal speculum (Large, Medium & Small)- 05 pcs each			
b.	Otoscope: Heine's pocket-02 pcs			
c.	Crocodile forceps- 03 pcs			
d.	Jobson horne probe- 04 pcs			
e.	Metallic spatula/ Tongue depressor- 04 pcs			
f.	Mouth mirror/ Dental mirror- 06 pcs			
g.	Indirect laryngeal mirror- 04 pcs			
h.	Post Rhinoscopic mirror- 04 pcs			
i.	Tunning fork 512Hz/216Hz/1024Hz- 01 pcs			
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			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	(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.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485 or better for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.4	Electrical safety conforms to standards for electrical safety IEC 60601-1 (General requirement for Electrical safety of Medical Equipment).			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 years from acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**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	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted and also must submit original technical brochure. Failure in doing so may lead to rejection of bid from technical committee.

Technical Specification of Trial Lens Set

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Trial Lens Set		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1	**Description of Function**				
1.1	Trial lens set is a kind of ophthalmology calculating apparatus, used by hospital ophthalmology and glasses shop to exam people's dioptric situation: hyperopia, myopia, presbyopia, astig- matism strabismus or color blindness.				
2	**Operational Requirements**				
2.1	The basic requirements for all types of trial case lenses used for detecting the refractive defects of human eyes				
3	**System Configuration**				
3.1	Trial Lens Set with frame complete unit with all standard accessories.				
4	**Technical Specifications**				
4.1	It should consists of positive or negative sphere lens, positive or negative cylinder lens, prism lens and accessory lens, etc				
4.2	The highest degree of accuracy to determine visual acuity, and convenience of use.				
4.3	Lenses marked only on one side to ensure correct positioning in the trail frame.				
4.4	Sturdy lightweight aluminium rings that are color-coded and marked for easy identification				
4.5	All lens are cemented as well as firmly clamped to ensure precision in the aligment.				
4.6	The corrective curve trial lens set comes in a sturdy holding tray with beveled slots for fast and easy insertion				
4.7	The biconvex and biconcave lenses are mounted in metal rims that have the lens power engraved in the both side of the handle.				
4.8	The full diameter lens provides a wide field of view during refraction.				
4.9	Trial frame is constructed for durability and long life, while being light weight and comfortable to wear.				
4.10	Should have horizontal and vertical bridge adjustment.				
4.11	An adjustable saddle bridge assures a comfortable nose fit.				
4.12	Should have separate PD adjustment for each eye to compensate for asymmetrical factors in facial structure.				
4.13	Should have adjustment for rotating cylinders to correct the axis.				
4.14	**Lenses-spheres**				
a.	Concave and convex-0.12 (approx.)				
b.	0.25 to 4.0 in 0.25 steps (approx.)				
c.	4.5 to 6.0 in 0.5 steps (approx.)				
d.	7.0 to 14.0 in 1.0 steps (approx.)				

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
e.	16.0 to 20.0 in 2.0 steps (approx.)			
f.	0.25 to 3.5 in 0.25 steps (approx.)			
g.	4.0 to 6.0 in 0.5 steps (approx.)			
h.	Prisms-1/2, 1, 2, 3, 4, 5, 6, 8, 10, 12.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** Trial frames, one adult size and one for child, adjustable with slots i. Red glass ii. Green glass iii. Pin hole iv. Slit v. Two blank discs vi. Two occlude vii. Cross cylinder +/- 25 and +/-0.5			
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 Climate, Temperature, Humidity, etc.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 / ISO13485 **or** CE (93/42 EEC Directives) approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year.			
10	**Maintenance Service During Warranty Period**			
10.1	Standard warranty conditions are applicable.			
11	**Installation and Commissioning**			
11.1	Must supply preassembled unit, ready to use.			
12	**Documentation**			
12.1	User (Operating) and/or Service (Technical / Maintenance) manual shall be supplied in English.			

Technical Specification of Panchakarma Equipment's (Snehan Swedan)

S.N	Name of Equipment	Description	Bidder's Compliance Sheet
1	**Nadi Swedan Yantra**	***Manufacturer:*** ***Brand:*** ***Type/model:*** ***Country of Origin:*** ***Technical Specifications*** 1. **Steam Generator-** Heavy stainless steel body Capacity steam generator with outer lid. Unit fitted with high pressure unit hose. Unit if fitted with low water cutoff switch for safety. Unit is mounted with tubular steel frame fitted with four wheel for easy mobility. 2. **Steam outlet-** Stainless steel handheld sprayer with wooden handle and aluminum water strainer to provide non pressurized stream. 3. **Heater –** 3 KW electric element 4. **Safety –** Unit fitted with safety pressure valve, steam flow control valve and pressure gauze. 5. Power – 220 V (single phase) 6. **Water Capacity –** 20- 25 lt 7. Having ISO and CE certified product.	
2	**Sarvang Swedan Box**	***Manufacturer:*** ***Brand:*** ***Type/model:*** ***Country of Origin:*** ***Technical Specifications*** 1. **Cabinet Material –** High quality fiber with one door system with easy neck adjustable space. Light weight and portable. 2. **Seat –** Height adjustable wooden seat/stools 3. **Size –** Height 45" , Width 30" , Depth 40" (Approx) 4. **Capacity** – 1 person 5. Unit included with SS steam generator with low water cut off with steam outlet attached with rubber steam hose pipe (without handle sprayer) ***-Other specification as Nadi Swedan Yantra,*** 6. Having ISO and CE certified product.	
3	**Abhyanga/ Massage Bed**	***Manufacturer:*** ***Brand:*** ***Type/model:*** ***Country of Origin:*** ***Technical Specifications*** 1. **Material –** Stainless steel frame bed with good quality foam and leather 2. **Size-** Height 30" , Width – 24" , Length = 72" 3. Having ISO and CE certified product.	

4	**Shirodhara droni**	***Manufacturer:*** ***Brand:*** ***Type/model:*** ***Country of Origin:*** ***Technical Specifications*** **1. Material –** Wooden with short bowl model for the collection of oil integrated to head portion with oil outlet with prevention of back flow of oil. Wooden material of Shorea robusta (saal plant). Oil out provided at leg portion also. **2. Table width** – 34” **3. Height** – 36” 4. **Length** – 84” **5.** Having ISO and CE certified product.	
5	**Shirodhara stand and dhara Patra**	***Manufacturer:*** ***Brand:*** ***Type/model:*** ***Country of Origin:*** ***Technical Specifications*** **1. Shirodhara stand material –** Wood (saal wood) **Size –** 70” * 22” **2. Base =** With square wooden foot containing 18*18” storage box. **3. Dhara Patra =** Material of Copper with capacity of 2-3 liter attached with metal chain. Unit containing manual gate control valve for oil outlet. Having ISO and CE certified product.	

Technical Specification of Water Bath

S.N.	Purchaser's Specifications	Bidder's Offer
	Water Bath	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Water bath maintains a constant pre-set temperature for treating samples.	
2	**Operational Requirements**	
2.1	General purpose water bath is required.	
3	**System Configuration**	
3.1	Water Bath, complete unit with all standard accessories.	
4	**Technical Specifications**	
4.1	Material: Inner and outer jacket made up stainless steel of approximately1mm thickness.	
4.2	Capacity: 20 L or more	
4.3	Microprocessor controlled programmable, digital display for temperature etc.	
4.4	Temp. Range: 30ºC to 70ºC accuracy+/- 1 ℃.	
4.5	Tube Holders: Must provide sample tube holder of 5 to 10ml size.	
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 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 fitted with appropriate plug. The power cable must be at least 3 metre in length.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices **AND**	
7.2	CE (EEC Directives) or USFDA approved product certificate.	
7.3	Shall meet IEC 61010-1 safety requirements for electrical equipment for measurement, control, and laboratory use.	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the equipment).	

9	**Warranty**	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	Supplier must accomplish proper commissioning of equipment onsite.	
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.	

Technical Specification of 500mA X-Ray Machine with Flat Panel Detector System

S.N.	Purchaser's Specifications	Bidder's Offer
	500mA X-Ray Machine with Flat Panel Detector System	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
1	**Description of Function**	
1.1	A high frequency X-Ray Machine 500 mA & Flat Panel Detector System	
2.1	**System Configuration**	
21	High Frequency X-Ray Machine (500mA) & Flat Panel Detector System with standard accessories	
3	**Technical Specifications**	
A	**X-Ray Machine**	
	X-Ray Generator	
3.1	Microprocessor based, high frequency inverter generator, the generator shall have at least of 40KW or more with frequency not less than 40kHz.	
3.2	Output Power 40 KW or more	
3.3	KV Range: 40 to 125 KVP	
3.4	mA: 500 mA or more	
3.5	mAs: 500 mAs or more	
3.6	Digital Display of KV, mA, mAs/Sec	
3.7	Overload Indication	
	X-Ray Tube	
3.8	Rotating anode X-Ray Tube	
3.9	Focal Spot: Small 1.0mm x 1.0mm, Large 2mm x 2mm	
3.1	Anode heat capacity should be 140KHU or more	
	Floating table with 4-way movement of the table top i.e. along x-axis and y-axis is to be provided.	
3.12	Table-Top Length: Approx.1950 mm	
3.13	Table-Top Width: Approx. 650 mm	
3.14	Table-Top Height: Approx.750 mm	
3.15	It should have bucky system which can accommodate standard radiographic cassette. X-ray Grid 8:1, 85 lines/cm with medical grade	

S.N.	Purchaser's Specifications	Bidder's Offer
	Tube Stand	
3.16	Column Movement can be arrested by Electromagnetic locks	
3.17	Vertical Movement of X-Ray Tube : Approx.1300mm	
3.18	Tube Rotation : 90° or better on either side.	
3.19	Longitudinal Movement of Tube: Approx.1800mm	
	Control Panel	
3.20	Should have large X-ray console to read various radiographic parameters and error codes.	
3.21	User configurable, 150 or more Anatomical programs	
3.22	Error indication incase of malfunction of X-Ray Equipment. The system should have detailed errors display capability.	
3.23	Display of KV, mA, mAs	
3.24	Density Control	
3.26	KVp increment & Decrement in step of 1 KVp only	
3.27	Must submit ISO 13485 Certificate for X-Ray Systems	
3.28	Must Submit BIS & AERB Approval certificate for X-Ray System OR European CE OR USFDA certificate	
B	**Flat Panel Detector System**	
3.28	The detectors Scintillator material should be made up of Cesium Iodide and sensor with appropriate technology.	
3.29	Cesium Iodide (CsI) Scintillator or Equivalent	
3.30	Should be Portable Approx. 14x17 inches (36 x 43cm) wireless detector. (± 1 inch will be accepted)	
3.31	Should incorporate Latest Technology (Oxide based technology/CsI) Flat Panel technology for higher resolution and faster pixel response time.	
3.32	Should have Lossless AED/AWC to increase dose efficiency and image quality by detecting X-ray start and finish with perfect precision	
3.33	Should have spatial resolution of 3.3 lines pair/millimeter or more.	
3.34	The Pixel Matrix should not be lesser than 2300 x 2800 pixels.	
3.35	The Pixel pitch should be 150µ or lesser	
3.37	Should have a minimum image depth of 16 bit or more	
3.38	The detector should be light weight (≤ 4 Kgs) including battery.	

S.N.	Purchaser's Specifications	Bidder's Offer
3.39	Detector should have at least IP33 rating or more for ingress protection from dust &liquid.	
3.4	The system should have feature to increase sharpness in the images that improves the possibility of detecting abnormalities. Bidder must mention the name of the technology offered along with supporting literature. Failure to do so will result in disqualification.	
3.41	The Software should have Image Stitching facility as a standard	
3.42	Two batteries should be provided with a battery charger. Full Battery charging time should be maximum 4 hours.	
3.43	The Detector should have LED Display to view the Detector status.	
3.44	The Detector should be supplied with 2 Nos. Lithium Ion/Polymer Batteries	
3.45	Easy switch from sleep mode to acquisition mode for better battery performance	
3.46	The detector should also have direct charging facility (without removing batteries)	
3.47	Measurements, Annotations, ROI, Markers, Image Rotation, WW/WL etc.	
3.48	**Connectivity / Data Export:**	
	The System should have LAN Connectivity Port for transferring the DICOM Image to PACS / Imager	
	Networking Compatibility: Local/MWL/Storage Server/MPPS/Printer	
3.49	**Image Station**	
3.5	CPU – Intel i5 or better, RAM – 8GB, HDD –1TB,	
3.51	Display Monitor: 24" size; 1900 x 1080 Pixels	
	Laser Printer/Thermal Printer	
3.52	Printer should have dry Laser image Technology or Thermal printer, compatible with DICOM.	
3.53	Printing capacity of about 50 sheets or more/ hour (14x17).	
3.54	Film Print Sizes: 14 x17, 10 x 12, 8 x 10	
3.55	Double Online Tray	
3.56	Resolution: more than 300 DPI	
3.57	Gray Scale Contrast Resolution: 14 bits	

S.N.	Purchaser's Specifications	Bidder's Offer
3.58	Must submit ISO13485 for Medical Devices for Flat Panel Detector System and film Printer	
3.59	Must submit CE and USFDA approved product certificate for Flat Panel Detector AND CE or USFDA approved product certificate film printer.	
3.	Shall comply with IEC 60601-1-2 : Medical Electrical Equipment Electromagnetically Compatibility Requirement for Medical Devices for Flat Panel Detector System.	
4	**Accessories, Spare Parts and Consumables**	
4.1	**Accessories**	
	Lead Apron-1 Pc	
	Thyroid Shield-1 Pc	
	Floor Mounted Vertical Bucky Chest Stand with grid-1 Pc	
	Online UPS of appropriate capacity with 30 min backup to run the computer and image printer	
4.2	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. Bidder's must specify the quantity of every item included in their offer (including items not specified above)	
5	**Operating Environment**	
5.1	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	**User Training**	
6.1	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	
7	**Warranty**	
7.1	Comprehensive Warranty for 2 Years after acceptance.	
8	**Maintenance Service During Warranty Period**	
8.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown whenever required	
9	**Installation & Commissioning**	

S.N.	Purchaser's Specifications	Bidder's Offer
9.1	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's in advance in details	
10	**Documentation**	
10.1	User(Operating) manual in English	
10.2	Service(Technical/maintenance) Manual in English	

Technical Specification of Color Doppler USG Machine with 2 probes

S.N.	Description	Compliance Yes/ No	Page No. Catalogue	Remarks
	Name of bidder :			
	Manufacturer:			
	Country of Origin :			
	Model No.:			
	Brand:			
1	A fully Digital Color Doppler Ultrasound DICOM compatible imaging system, with capability of higher Tissue Harmonic Imaging, speckle reduction techniques and High Dynamic Pixel Focusing for general imaging. Should have inbuilt cardiac software for echo application.			
2	System should have broad band beam former capable of processing signals from 2 MHz to 13 MHz or better			
3	Should have the state of the art compound imaging technology to acquire multiple images at multiple lines of sight, which are compounded to a single Image at real-time			
4	System should have Tissue Harmonic Imaging, Spatial Compound Imaging, Quad Imaging, Dual Imaging, 2D Dual Live Imaging, PW Doppler Imaging, Directional Power Doppler Imaging, Continuous Wave Doppler and Tissue Doppler Imaging.			
5	System should have panoramic extended field of view.			
6	The system should have minimum 200,000 digitally processing channel			
7	The system monitor should be minimum 21” LED with Flexible Arm with Display matrix minimum 1920 * 1080 resolution monitor with wide viewing angle and able to move monitor rear/front and Left /right Position..			
8	The freely fully programmable, mode-sensitive color Touch command should be minimum 12” size with High Resolution Display minimum of 1920 * 1080 and. Support powerful touch gesture operation, Page up and down, Measurement on projected image , Zoom in/out the projected image on touch screen, Rotate or erase on projected 3D/4D image on touch screen,			
9	System should have built in Image Management Software, for offline application when patient has gone after examination, such as Image Manipulation. It should have hard disk memory of 1 TB or more.			
10	System shall be offered with a single button control for automatic optimization and adjustment of TGC and			

	Receiver Gain to achieve optimal uniformity of image quality and faster scans.			
11	System must contain inbuilt gel warmer.			
12	System should have facility for real time or frozen, pan or point zoom.			
13	The system panel height should be adjusted according to the user comfort			
14	The panel should be for Maximum User Comport.			
15	All the transducers are broadband with multi frequency capability.			
16	System Depth should be up to 40cm			
17	The system should have High Dynamic range of 250 db or more. Higher Dynamic range will be Preferred.			
18	System must be offered with 2D Frame Rate. Frame rate should be more than 1000 frames/second.			
19	Cine loop as well as cine scroll facility in B mode with image storage of at least 20,000 frames must be available.			
20	The system shall be capable of providing the following scan/display modes:- a. B, 2B, 4B, M mode, Color M mode. b. Power Doppler Imaging, c. Directional Power Doppler Imaging. d. Pulsed Wave Doppler Imaging. e. CW Doppler & Tissue Doppler Imaging			
21	The System should have at least 4 active Transducer ports.			
22	The System should have Tissue Harmonic Imaging for Better Contrast and Less Artifact			
23	System should have Automatic measurements Software for fetal biometry BPD, FL, HC, AC and OFD			
24	System should have Automatic calculation of Bladder Volume measurement.			
25	System should have Auto measurement method for Hepatorenal Index (HRI) for Liver Steatosis assessment.			
26	System should have function of auto measurement for Pediatric hip.			
27	System should have feature of Automatic measurement of Pelvic.			
28	System Should have inbuilt HDD of 1 TB or above.			
29	The System should have Lateral Gain Compensation adjustment.			
30	System should have 3D imaging function also.			
31	The system should have a fast boot up time when switched on from 'OFF' position.			
32	The System should have Directional Power Doppler Imaging mode.			

33	The system should have PW Doppler			
	Should have all Cardiac and vascular measurement package including auto measurement of carotid intima media thickness (Auto IMT).			
	Advanced functions like tissue velocity imaging, tissue tracking, 2 D strain, strain rate imaging should be available.			
	The system should support Contrast Specific Imaging capability and should allow for LV opacification.			
34	System should have function of Split screen to display two live scanning image side by side.			
35	System should have features of High resolution flow with extraordinary spatial resolution for accurate vessel profile and less overflow; support both Color and Power mode			
36	The system should have a Smart Track function that automatically follows blood flow during real-time scanning. It should adjust the color Doppler box position, size, and angle on its own to give a clear and stable image. This feature must work with linear transducers to save time, improve efficiency, and reduce operator effort.			
37	System should have software for enhanced needle visualization to track the needle clearly at the steep angles during the procedures			
38	DICOM 3.0 should be upgrade able with System for Image Transfer			
39	System should have Strain Elastography feature available for Linear Probe in standard.			
40	System should comes with Built-in- Battery back up with at least 1 hour of continuous scanning time.			
41	Following Probes and Local Accessories should be supplied along with system: 1. **Convex Probe** with Band Width of 2 MHz to 6 MHz or better for abdominal, Obstetrics and Gynecology application. 2. **Linear probe** with Bandwidth of 3 MHz to 13MHz or better for vascular, MSK, Nerve and small parts application			
	Accessories, spares and consumables			
42	Thermal B/W Printer – 1 Unit			
43	3 KVA Online UPS system should be supplied with the System.			
	Operating Environment			
44	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.			

45	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 2 metre in length.			
	Standards and Safety Requirements			
46	The unit should be CE marked to European medical devices directive and US FDA certificates must be valid.			
47	Must submit ISO 13485 or ISO 9001 for Medical Devices			
	Documentation			
48	The supplier must submit the original brochure or e-copy.			
49	The supplier should fill the technical tender form and clearly mention the manufacturer, model no., and country of origin/Made in, else technically will be disqualified.			
50	The bidder must submit a valid authorization from the manufacture.			
51	All the spare parts and consumable for the Color Doppler USG Machine with price should be submitted separately. The price should not vary during the warranty period of the machine.			
52	The machine supplied should be brand new with the date of manufacture mentioned and the country of the origin should be clearly mentioned.			
	Warranty			
53	Should have **2 years** complete parts & service Guarantee from the date of complete installation			
	Installation and Commissioning			
54	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.			
55	Onsite repair & maintenance training and operational training to the Hospital's Biomedical Engineer, Biomedical technicians and users.			

Biddermust completelyfillthe Technical Specification Form (TSF). OnlyYes/No/Allcomplies shouldnotbe written.Pagenumberinthecatalogueof alltherequiredparametersmustbe clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee. Original e-copy &hard-copy of catalogue, brochure, user manual etc. must be submitted.