Specification of Semi-Automated Biochemistry Analyzer

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's Compliance (Yes	Reference Page	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	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.			
2	**Operational Requirements**			
2.1	Semi automated chemistry analyzer with built in software for the calculation and curve plotting. It must accept all types of curve fits like log-linear, exponential, point to point.			
2.2	Memory for ≥150 open user defined chemistries minimum			
3	**System Configuration**			
3.1	Semi automated chemistry analyser with built in data processor with at least 60 parameters.			
4	**Technical Specifications**			
	Measurement Principle: Colorimetry (Rate/End point)			
4.1	Light Source : Halogen Lamp or LED			
4.3	Optic: 6 Wavelength Range: Automatic selection by at least 6 position filter wheel ranging 340 - 630 nm.			
4.4	Photometric Range: 0 to 2.5 Absorbance.,			
4.5	**Calculation Modes:** Absorbance/concentration End point . Fixed time . Kinetic mode,Factor,Single-or Multi-standard			
4.6	Option for cuvette mode and aspiration mode.			
4.7	Aspiration system: Programmable sipping volume from 100-1000 µl. Measuring volume not more than 50µl			
4.8	Programme: High/Low flags.			
4.9	Flow Cell- 10 mm path length			

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4.10	Temperature control by Peltier element			
4.11	Built in thermal printer.			
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 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 ISO 9001 and/ or ISO 13485:2003/AC:2007			
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 2 year after installation			
10	**Maintenance Service During Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			

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TECHINICAL SPECIFICATION FOR HBA1C analyzer

S.N.	Purchaser's Specifications(V-081/82)	Bidder's compliance sheet		
	Portable-HBA1C analyzer	**yes/No**	**Page no. in catlog**	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	An HbA1c analyzer machine measures the amount of glycated hemoglobin in a blood sample to assess long-term blood sugar control.			
2	A light beam with intensity passes through the test cuvette with Ag-Ab reactions and fall on the photodetector placed at 180/135 deg. In turbidimetric assays reduction in the intensity of transmitted light(I-t)measured at 180 deg corresponds to the concentration of test analyte.In nephelometric assays,increase in the amount of scattered light (I-s) measured at 135 deg corrosponds to the concentration of test analyte			
3	**System Configuration**			
	Portable HBA1C Analyser with complete accessories for different parameters: **HbAlc, D-dimer, CRP, RF, ASO, MA, IgE, Ferritin, C3 & C4**.			
4	**Technical Specifications**			
A	Principle-Turbidimetry/Nephelometry			
B	Optical System- Laser LED (650nm) and Silicon detectors at 180/135 deg			
C	Measuring Chamber : • Temperature 37 C +/- 1 C •Should have Auto mixing feature			
D	Should have electronic pipette for reagent auto start reading			
E	Should have smart card/RFID card for Lot specific assay calibration with applications			
F	QC- 3 level with Levey Jennings plot should be available			
G	Display- Atleast 4" Color touch screen, online reaction curve			
H	Should have inbuilt thermal printer			
I	Data transfer-USB/R232 cable			
J	Should have data storage for atleast 400 results			
k	Should be supplied with Li-ion battery with appropriate battery backup facility			
l	Dimensions(approx.)-296 (L) x 232 (W) x 117 (H)			
M	Weight(approx.)-3 kgs			
O	Power supply-100-240V,AC 50/60 Hz,DC Power adaptor of suitable rating.			
5	**Accessories, spares and consumables**			
	Accessories: **• Incubator,Power cable adapter,Electronic pipette,manual pipette(5-50ul),manual pipette(100-1000ul),dust cover,USB/R232 cable- 1 set each, paper roll-10 pcs**			

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S.N.	Purchaser's Specifications(f/y-081/82)	Bidder's compliance sheet		
	Portable-HBA1C analyzer	**yes/No**	**Page no. in catlog**	Remarks
	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**			
A	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country.			
7	**Standards and Safety Requirements**			
A	Must submit ISO 13485 for medical device AND			
B	CE or USFDA approved product certificate			
8	**User Training**			
	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
	Comprehensive Warranty for 2 year.			
10	Maintenance Service During Warranty Period			
	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	Documentation			
	User (Operating) manual in English during the time of installation.			

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

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निमित्त निर्देशक

Technical Specification for: Digital Centrifuge

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's Compliance Sheet		
		Yes/No	Page No. in	Remarks
	Item Name: Digital Centrifuge(8tubes or more)			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	Centrifuges are required in the Laboratory to separate various components of Blood, Urine and any other liquid sample for analysis			
2	**Operational Requirements**			
	A Table top version Centrifuge Machine with compact construction for vibration free performance			
3	**System Configuration**			
	Centrifuge complete with basic rotors and suitable tube adaptors.			
4	**Technical Specifications**			
A	Tube Capacity: 8 tubes or more with 15 ml capacity			
B	Automatic locking system of the lid			
C	Speed Range: Approx.3500- 5,000 RPM			
E	Imbalance detection system with automatic functioning stop to avoid accidents			
F	Digital adjustment of acceleration and deceleration levels			
5	**Accessories, spares and consumables**			
A	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).			
B	Must supply reduction adaptors for small tube sizes.			
6	**Operating Environment**			
A	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.			
B	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**			
A	Must submit ISO 9001 or ISO 13485 for Medical Devices			
B	CE or FDA approved product certificate.			
8	**User/Technician Training**			
	Must provide user/technician training (including how to use and maintain the equipment).			
9	**Warranty (Written Document)**			
A	Comprehensive warranty for 2 years from acceptance.			
B	During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required. PM must be performed bi-annually and broken spares replaced FOC within the warranty period.			
11	**Installation and Commissioning**			

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	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**			
A	User (Operating) manual in English			
B	Service (Technical / Maintenance) manual in English			

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TECHINICAL SPECIFICATION FOR URINE ANALYZER

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's compliance sheet		
	URINE ANALYZER	**yes/No**	**Page no. in catlog**	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	Urine strip analyser quickly analyses urine chemistry for diagnosis and screening.			
2	**Operational Requirements**			
	Must have flexible user programmable option available to use parameter strip as and when required.			
3	**System Configuration**			
	Urine Strip Analyser with complete accessories.			
	Wavelength: at least 3 with CCD Detector(Photosensitive Diode)			
4	**Technical Specifications**			
A	Measurement Principle: Reflectance Photometry or Photoelectric calorimetry or equivalent technology.			
B	Shelf life for the Urine Strips must be more than 18 months			
C	Measured Parameters: □ Urobilinogen □ Bilirubin □ Ketones □ Creatinine □ Hemoglobin/blood, □ Protein □ Microalbumin □ Nitrite □ Leukocytes □ Glucose □ Specific gravity □ pH and □ Ascorbic acid			
D	Throughput (Speed): Atleast 120 samples/hour			
E	Should flags for abnormal results.			
F	Reporting: Must have facility of reporting through inbuilt thermal printer			
G	Memory: At least 5000 tests results stored automatically.			
	Display: □ LCD module to show data on screen to show test results and operation status of system			
	Printer: Built in printer.			
	LIS/HIS Compactibility for better patient care			
5	**Accessories, spares and consumables**			

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S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's compliance sheet		
	URINE ANALYZER	**yes/No**	**Page no. in catlog**	Remarks
	Accessories: **□ Urine strip (13-Parameter) start-up kit - 100 strips and Calibration Strip should be provided free of cost.**			
	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**			
A	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country.			
7	**Standards and Safety Requirements**			
A	Must submit ISO 13485 for medical device AND			
B	CE or USFDA approved product certificate			
8	**User Training**			
	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
	Comprehensive Warranty for 2 year.			
10	Maintenance Service During Warranty Period			
	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	Documentation			
	User (Operating) manual in English during the time of installation.			

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

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निमित्त निर्देशक

Technical Specification of Binocular Microscope

S.N.	Hospital Proposed Specification(Health Directorate, Dhankuta)/2081/82	Technical Compliance sheet
	Binocular Microscope	
	Manufacturer :	
	Brand :	
	Model :	
	Country of Origin :	
1	**Description of Function** A Microscope fitted with double eyepieces for vision with both eyes is a Binocular Microscope. Compound microscope consists of two or more than two magnifying lenses. One can view individual cells, even living ones. It shall have high magnification.	
2	**Operational Requirements** System complete with illumination system required.	
3	**System Configuration**	
	Binocular microscope (LED) with complete accessories.	
4	**Technical Specification**	
	Type • Upright compound microscope with Koehler Illumination	
	LED illumination • **Light source should be 0.5W LED light** with minimum 20000 hours life • The system must have a build in transmitted illumination system.	
	Optical System: • Infinity optical system • All optical parts including objectives, eye pieces and prisms must have anti-reflective coating which also gives anti-fungal property.	
	Eyepiece • Paired, high quality, have a minimum field number of 20. Diopter adjustment must be present on on/both eye pieces or on the eye piece tube.	
	Nose Piece: • Fixed quadruple nose-piece for 4 objectives	

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	Objectives • With High quality objectives of the Plan-Achromatic class: Plan-Achromatic 4x/0.10 Plan-Achromatic 10x/0.25 plan- Achromatic 40x/0.65 Plan-Achromatic 100x/1.25 Oil, WD=0.13mm • 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"	
	Condenser • Abbe-type condenser, numerical aperture (N.A) 1.25 focusable with rack and pinion arrangement incorporating a spherical lens and an iris-diaphragm	
	Viewing Tube • Viewing with 30° angle and field of view min 20mm • With Interpupillary Distance continuously variable from 48 to 75 mm by asymmetric folding of the binocular part	
	Stage • Aluminum die cast stable body with coaxial focus adjustment. • Mechanical reckless stage with Long-lived stage surface With well-readable vernier and robust controls • Wire movement mechanical fixed stage. Travelling range: 76mmx30mmx, Specimen holder, specimen position scale. • Co-axial course and find focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. Built in security slot and focus lock should be provided. • **Must have ergonomic grip for easy carrying**	
5.	**Accessories, spares and consumables**	
	All standard accessories, consumables if any 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** The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include PowerSupply, Climate, Temperature, Humidity, etc.	

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	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugto meet purchaser's country requirements. The power cable must be minimum3 meters long.	
7	**Standard and Safety Requirements**	
	Must submit ISO13485:2016/AC:2007 for Medical Devices **AND**	
	CE (98/79/EC directives) or USFDA approved certificate.	
8	**User Training**	
	The Supplier shall conduct onsite 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**	
	Comprehensive warranty for 2 years after installation, from Manufacturer.	
10	**Maintenance Service During Warranty Period**	
	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance wheneverrequired.	
11	**Installation and Commissioning**	
	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**	
12.2	User (Operating) manual in English	
12.3	Service (Technical/Maintenance) manual in English	

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Technical Specification for Hot air Oven

S.N.	Purchaser's Specifications	Bidder Compliance Sheet		
	Hot Air Oven (Small)	**Yes/ No**	**Reference Page No**	**Remarks**
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	**Description of Function**			
1.1	Hot Air Oven is required for heating a sample under controlled conditions.			
2	**Operational Requirements**			
2.1	Hot air oven for heating sample under controlled condition			
3	**System Configuration**			
3.1	Hot Air Oven (Small) with complete accessories			
4	**Technical Specifications**			
4.1	Must be made of double walled chamber. Inner wall should be made of high grade steel and outer made of mild steel duly painted with powder coated paint.			
4.2	**The gap between the two wall will be filled by high grade glass wool of 75mm to avoid thermal loss**			
4.3	Must provide with three heating elements on three sides of the equipment for uniform temperature on all shelves.			
4.4	**Must have Microprocessor Based PID type digital temperature controller cum indicator.**			
4.5	Must have a minimum chamber size of 300mm (L) x 300mm (B) x 300mm (H)			
4.6	Shall have provision of air ventilations.			
4.8	Temperature Range: +5 °C to 250 °C.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:**			
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.			
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**			

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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 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.			

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Refrigerator for Reagent

S.N.	Purchaser's Specifications,F/Y-081/82	Bidder's Compliance		
	Refrigerator for Reagent	Yes/No	Ref Doc Page No.	Remarks
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	**Description of Function**			
1.1	Laboratory Refrigerator is used to store samples, medicines, blood bags, reagents etc. under controlled temperature conditions.			
2	**Operational Requirements**			
2.1	Refrigeration system: CFC-free refrigerant cooling system and the refrigerant must be R134a or better type.			
2.2	Capacity of storage: Atleast 100 litres.			
3	**System Configuration**			
3.1	The system consists of: Refrigerator with cap atleast. 1500 litres.			
4	**Technical Specifications**			
4.1	Microprocessor based Temperature Controller with digital LED display.			
4.2	Monitor for temperature with audible & visual alarm for high/low temperature, thermostat fault, Door Ajar & power failure.			
4.3	Temperature range shall be 2-8°C.			
4.4	Temperature accuracy shall be not more than 0.1°C.			
4.6	Refrigeration type must be forced air refrigeration system.			
4.7	System must have high efficiency air cooled condenser.			
4.8	System must have adjustable shelves which is made up of stainless steel.			
4.9	System must have at least 3 number of adjustable shelves.			
4.10	System shall have LED lamp for internal glowing and it must be lockable with door keys.			
4.11	System shall consume low energy			
5	**Accessories, spares and consumables**			

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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 input to be 220-240VAC, 50Hz fitted with appropriate plug. The power cable must be minimum 3 metres long.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 / CE/ USFDA certificate			
8	**User Training**			
8.1	Not applicable.			
9	**Warranty**			
9.1	Comprehensive warranty for 2 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 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.			

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TECHINICAL SPECIFICATION FOR WATER BATH

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's compliance sheet		
	WATER BATH	**yes/No**	**Page no. in catlog**	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	Water bath maintains a constant pre-set temperature for treating samples.			
2	**Operational Requirements**			
	General laboratory purpose water bath is required			
3	**System Configuration**			
	Water Bath, complete unit with all standard accessories.			
4	**Technical Specifications**			
A	Single chamber water bath			
B	Material: Inner and outer jacket made up of stainless steel.			
C	Inner chamber working capacity not less than 20 L.			
D	Microprocessor controlled programmable, digital display for temperature etc.			
E	Temperature Range: Approx.10°C to 70°C. Accuracy: +/-1°C.			
F	Thermostatic function/control			
5	**Accessories, spares and consumables**			
	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**			
A	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country.			
7	**Standards and Safety Requirements**			
A	Must submit ISO 13485 AND CE product certificate			
8	**User Training**			
	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
	Comprehensive Warranty for 2 year.			
10	Maintenance Service During Warranty Period			
	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	Documentation			
	User (Operating) manual in English during the time of installation.			

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S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's compliance sheet		
	WATER BATH	**yes/No**	**Page no. in catlog**	Remarks

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

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TECHINICAL SPECIFICATION FOR Micro Pipette -variable

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's compliance sheet		
	MICRO PIPETTE-VARIABLE	**yes/No**	**Page no. in catlog**	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	Micropipettes are micro tools constructed from anti corrosive material tubing for microdispension, microaspiration and micromanipulation purposes.			
2	**Operational Requirements**			
	Required in various sizes and compatible with all brands of tips.			
3	**System Configuration**			
	Manual Micropipette Set of variable sizes with all standard accessories.			
4	**Technical Specifications**			
A	Micropipettes required in following sizes:			
	a)P10: 1-10 µl			
	b) P100: 10-100 µl			
	c) P1000: 100 – 1000 µl			
B	Suitable for all brands of tips.			
C	Spring-loaded tip cone for tip attachment			
D	Advance ergonomics to limit strain on hand and arm & a four-digit volume display			
E	With tip ejector mechanism.			
5	**Accessories, spares and consumables**			
	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**			
A	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country.			
7	**Standards and Safety Requirements**			
A	Must submit ISO 13485 AND CE product certificate			
8	**User Training**			
	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
	Comprehensive Warranty for 2year.			
10	Maintenance Service During Warranty Period			
	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			

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S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's compliance sheet		
	MICRO PIPETTE-VARIABLE	**yes/No**	**Page no. in catlog**	Remarks
11	Documentation			
	User (Operating) manual in English during the time of installation.			

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

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लिमित निर्देशक

Technical specification of Portable Colour Doppler Ultrasound Machine with two probes

S.N.	Purchaser's Specifications (f/y-081/82)	Bidders Offer
	Portable Colour Doppler Ultrasound Machine with two probes	
	Manufacturer:	
	Brand:	
	Type/Model:	
	Country Of Origin:	
1	**Description of Function**	
1.1	A general-purpose portable Colour Doppler Ultrasound imaging system with wide range applications including Abdomen, Obstetric, Vascular, Musculoskeletal, superficial Imaging.	
2	**Operational Requirements**	
2.1	It Shall operate on mains AC power supply.	
3	**System Configurations**	
3.1	The system should come with Color Doppler Ultrasound Scanner, linear array probe, convex array probe,Black and white thermal printer,manufacturer trolley.	
3.2	Must come with Digital colour Doppler Ultrasound Machine, 1 unit	
3.3	Must come with approx. 2-6 MHz Broadband curved array transducer – 1 unit	
3.4	Must come with approx. 2-14 MHz broadband linear array transducer- 1 unit	
4	**Technical Specifications**	
4.1	The operating system should be Linux or windows based for stable operation.	
4.2	The system should successfully perform in the following types of applications: Anesthesia, Abdominal, Small parts and superficial, Musculoskeletal, Obstetrics, Gynecology, Urology and Lung.	
4.3	The system including batteries should weigh not more than 9kg.	
4.4	The boot up time of system should be less than 60 sec.	
4.5	The system should be equipped multiple beam processing technology.	
4.6	The system must be offered with at least 15 inch or higher Flat Panel Medical grade LCD Display monitor with 1024x768 resolution or better.	
4.7 4.8	The system should have backlit keyboard with at least 4-user defined keys.	
4.9	The system should be capable of scanning depth of 38cm or more.	
4.10	System must be offered with a very high dynamic range of 30 – 220 dB to pick up subtle echoes.	
4.11	The system must support broadband Convex array, Linear array, Phased array and TVS array probe .	
4.12	System should have provision for 2 probe ports.(Either 2 universal probe port or expandable probe port with adapter)	
4.13	System should support broad band probes spanning a frequency of approx. 1-16 MHZ with multiple 5 frequencies or more range in B mode /Color Mode/PW mode/CW mode.	
4.14	The system should have zoom up and Full screen zoom facility	
4.15	Should have Full alphanumeric keyboard.	
4.16	System must be offered with 8 TGC slide pot with independently adjustable Gain control in Axial plane.	

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4.17	B mode & B colour simultaneously should be available side by side real time display of B-Mode & Colour flow. Digital zoom facility for region of interest in real time and frozen images.	
4.18	Image storage inbuilt hard disk of no less than 1 TB facility should be available.	
4.19	System should have more than 10000 frames cine storage.	
4.20	Operating modes: B-mode, M-mode, B/M Mode, Doppler Mode, Colour flow, Power Doppler, B/Colour flow, PW Doppler.	
4.21	System must have 256 grey shades or better	
4.22	System should have facility of DICOM and atleast 2 USB ports.	
4.23	The system should support compound imaging and trapezoidal imaging in both convex and linear probe.	
4.24	The system should have B, B/B, B/M, M, Color Doppler, PW, color M.	
4.25	System should have all measurement packages, including Abdominal, OB, GYN, and Vascular.	
4.26	System should have Needle Enhancement Software with dual live and steer angle 20 to 50 degree.	
4.27	The system should support to capture and review the archived images, and output the images and video to USB in scanning interface. Can support different export format including BMP, JPG, AVI, PDF, and DICOM.	
4.28	The system should support IMT measurement, and the result can be displayed in report.	
4.29	The system should have Adjustable Speckle Reduction Technology.	
4.30	The system should have B steer facility.	
4.31	System should have real time trace in PW mode.	
4.32	System should support ECG Function for immediate upgradability in future.	
4.33	System should have standby mode which can support a fast wake-up .	
4.34	System should have built-in DICOM3.0	
4.35	System should have one button for Image optimization for 2D / Color / M / PW mode/CW mode	
4.36	System should have Body mark for easy examinations.	
5	**Accessories, Spare Parts 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.	
5.2	approx. 2-6 MHz Broadband curved array transducer – 1 unit	
5.3	approx. 4-16 MHz broadband linear array transducer- 1 unit	
5.4	1 unit of black and white thermal printer	
5.5	1 unit of company manufacturer trolley	
5.6	1 unit of waterproof ,shockproof, USG case	
6	**Operating Environment**	
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Power Supply: 220-240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 meters in length.	

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7	**Standards & Safety Requirements**	
7.1	Must submit ISO for medical devices.	
7.2	Must submit CE **AND** USFDA 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 3 years after acceptance.	
10	**Maintenance Service During Warranty Period**	
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.	
11	**Installation and Commissioning**	
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical/ Maintenance) manual in English	
12.3	Must submit the valid authorization letter from manufacturer.	

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S.N.	Purchaser's Specifications(F/Y-2081/082)	Bidders Remarks
	Nebulizer	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.2	High quality nebulizer is a device used to administer medication to people in forms of a liquid mist to the airways. It is commonly used in treating asthma, and other respiratory diseases.	
2	**Operational Requirements**	
2.2	Heavy duty compact Nebulizer is required.	
3.	**System Configuration**	
3.1	Nebulizer, complete unit with all standard accessories.	
4	**Technical Specifications**	
4.1	Compact, lightweight, low noise (less than 65 dB).	
4.2	Durable long life maintenance and oil free compressor. Suitable for heavy duty/ institutional (hospital) use, must be able to run uninterruptedly.	
4.3	Must produce particle of size 1-5µm	
4.4	Piston-type or better electric aspirator that offers highperformance and great durability.	
4.5	Air delivery rate approx. 10l/min.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** • Adult and child face mask with medicine chamber and tubing - 1 each. • Spare filters- 1 nos. • Nebulizer carrying bag-1 nos.	
5.1	All standard accessories, consumables and partsrequired to operate the equipment, including allstandard tools and cleaning and lubrication materials, to be included in the offer).	
6	**Operating Environment**	
6.1	The system offered shall be designed to store and tooperate 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 withappropriate plug.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO13485	
7.2	Must submit CE or USFDA Certificates.	
8	**Warranty**	
8.1	Comprehensive warranty for 3 year after acceptance.	
9	**Maintenance Service during Warranty Period**	
9.1	During warranty period supplier must ensure corrective/breakdown	

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	maintenance wheneverrequired.	
10	**Installation and Commissioning**	
10.1	Ready to use preassembled unit.	
11	**Documentation**	
11.1	User (Operating and maintenance) manual inEnglish.	

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निमित्त निर्देशक

Technical Specification of ECG Machine, Portable (12 Channel)

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's Compliance sheet
	ECG Machine, Portable (12 Channel)	**Yes/No**
	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	Splash-resistant alphanumeric keyboard with function keys.	
4.4	With zeroing reset, auto-base-line correction (0.5Hz) and 1mV test/calibration signal.	
4.5	Filter setting for line-frequency (50 or 60Hz).	
4.6	Continuous check on the quality of electrodes connection,audio visual alert on loss of signal	
4.7	Appropriately protected for operation during defibrillation.	
4.8	Alphanumeric LCD display, approximately: 5 inches or more Display shows ECG-curves, heart rate, patient name and ID, time, speed and filter setting.	
4.9	Machine Should have lead reversal Facility, it should display message.	
4.1	ECG should have colored waveform display for the quality of ECG waveform.	
4.11	Machine Should have print preview option before taking printout.	
4.12	Machine should have interpretation based on gender and age.	
4.13	Front panel provides indication of system and battery status, electrode.	
4.14	Built-in or integrated high-resolution thermal printer.	
4.15	Number of channels printed is user selectable: 3, 6 or 12.	

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4.16	Combination of channels printed is standard and user selectable and with copy function.	
4.17	Paper speed, user adjustable: 5, 25 and 50mm/sec.	
4.18	Data interface: RS232 or equivalent. Self-test is performed each time the device is switched on.	
4.19	Sensitivity, automatic or user selectable: 5, 10 and 20 mm/mV.	
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, 1000 sheets- 1 no.	
	· Bottles of electrode gel 350ml - 2 nos.	
	· Set of spare fuses- 1 set	
	· Plastic protective dustcover- 1 no.	
5.2	All standard accessories, consumables and parts required to o perate 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	
6	**Operating Environment**	
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.	
6.2	Power supply: 220–240V 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 ISO 13485 for Medical Devices	
7.2	Must submit CE (93/42 EEC Directives) and USFDA approved product	
8	**User Training**	
8.1	Must provide user training (including how to use and maintain the	
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	
12	**Documentation**	
12.1	User (Operating) manual in English	
12.2	Service (Technical / Maintenance) manual in English	

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TECHINICAL SPECIFICATION FOR BED SIDE MONITOR

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidders Compliance sheet	
	Bed Side Monitor (ICU)	**Bidder's Offer**	**Remarks**
	Manufacturer		
	Brand		
	Type / Model		
	Country of origin		
1	**Description of Function**		
1.1	Advance high end vital signs monitoring of all patient categories, at bedside, OT or during transportation 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	Multi Parameter Patient Monitor, portable with complete accessories		
4	**Technical Specifications**		
A	Monitor must be able to monitor ECG, Respiration, SpO2, NIBP, Temperature.		
B	12" or more High Resolution TFT Display. Customized touchscreen display		
C	Should have Adult, Pediatric and Neonatal measurement Modes.		
D	**Monitoring parameters:** ECG, Respiration, SpO2, NIBP, Heart Rate, Temperature etc.		

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E	**ECG:** 3/5 Lead Selectable, Multiple Gain selection, variable Sweep Speeds, wide HR range (approx30-300 bpm) or wider with high accuracy (±5 bpm), Arrhythmia Analysis, ST Analysis & provide real time ST Complex view with Reference,Pacemaker Detection, Audibale and Visual Alarm with Events Recalling facility.		
F	**Respiration:** Thoracic -Impedance type, Wide RR range (5-120 bpm or wider), Adjustable Apnoea Alarm facility).		
G	**SpO2:**Masimo or Nelcor Probe. Range 1-100% with high accuracy (± 2% for 70-100%), selectable Plethysmographic Display and accurate Pulse Rate measurement (upto 250 bpm with accuracy of ± 2 bpm or 2% , whichever is greater), Perfusion Index, Audible and Visual alarms		
H	**NIBP:** Measurement by Oscillometric method, Manual/Auto/STAT modes of operation for adult and pediatric, Manual and Auto for Neonates, Auto measurement: At selectable intervals, Measurement Range: 10-270 mmHg or more.		
I	**Temperature:** Wide range (Atleast 10 - 45^0C), Celsius and Fahrenheit selectable, alarms. The monitoring system capable enough to monitor temperature .		
J	**Patient Protection:** All patients connections must be electrically isolated. System should be Defibrillator and Cautry protected.		

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K	Monitor must have internal Rechargable Lithium Ion Battery with more than 90 minutes of battery backup.		
L	Should be light weight (less than 7 Kgs including Batteries).		
M	Compatible wall mount stand should be provided along with the monitoring system.		
N	Must have Alarm limit display on main screen with audible alarms		
5	**Accessories, spares and consumables**		
A	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.		
6	**Operating Environment**		
A	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.		
B	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug		
7	**Standards and Safety Requirements**		
	Must submit ISO 13485 for medical devices and CE (93/42 EEC Directives) and USFDA approved product certificate .		
9	**Warranty (Written Document)**		
A	Warranty Period: 2 years		
B	During warranty period, supplier must perform bi-annual maintenance of the system		

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C	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required		
10	**Installation and Commissioning**		
	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**		
A	User (Operating) manual in English		
B	Service (Technical / Maintenance) manual in English		

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प्रमित निर्देशक

Digital Sphygmomanometer (BP Apparatus)

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082		Bidder's Offer	Page No in catalogue
	Sphygmomanometer (BP Apparatus), Digital			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	B.P. apparatus or sphygmomanometer is a device used to measure arterial blood pressure, composed of an inflatable cuff to restrict blood flow and to measure the pressure.			
2	**Operational Requirements**			
2.1	It shall be self-inflating digital BP apparatus for adult and paediatric patient.			
3	**System Configuration**			
3.1	Digital B.P. Apparatus with complete unit and with complete accessories.			
4	**Technical Specifications**			
4.1	It shall have one touch operation.			
4.2	It shall measure the systolic, diastolic and pulse rate and same shall be displayed on screen.			
4.3	Display: LCD digital display.			
4.4	Measurement method: Oscillometric type.or better			
4.5	**Measurement range:** • Pressure 0 – 290 mm Hg. • Pulse : 40 – 180 beats /min.			
4.6	**Accuracy:** • Pressure: + 3 or – 3 mm Hg. • Pulse rate: + 5 or – 5% of reading.			
4.7	Inflation: Automatic by electric pump.			
4.8	Deflation: Automatic pressure release valve.			
4.9	Pressure detection: capacitive pressure sensor.			
4.10	Shall work on 4 nos. AA alkaline batteries with minimum life for 500 readings.			
4.11	It shall have auto shut off function.			
4.12	Shall come with suitable sizes of reusable arm BP cuffs of adult and paediatric.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** • 2 x set of 4 nos. of AA alkaline batteries. • 1 x carrying case.			
5.2	All standard accessories, consumables and parts required to operate the equipment,			

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S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y 081/082	Bidder's Offer	Page No in catalogue
	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	Shall operate on 4 nos. AA alkaline batteries.		
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 2 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	Must supply preassembled unit, ready to use.		
12	**Documentation**		
12.1	User (Operating) manual in English.		
12.2	Service (Technical / Maintenance) manual in English		

Note: 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. Failure in doing so may lead to rejection of bid from technical committee.

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B Technical Specification of Handheld type Pulse Oximeter

Specifications

	Purchaser's Specifications	SPECIFICATION ,**F/Y-2081/082**	Bidder's Offer
	Manufacturer		
	Brand		
	Type/Model		
	Country of Origin		
	Description of Function	**Handheld - type Pulse Oximeter** For spot-checking arterial oxygen saturation (SpO2, %) and pulse rate (PR, bpm).	
	Operational Requirements	Suitable for professional clinical use across all patient categories: neonate, infant, and adult.	
	System Configuration	Complete unit with all standard accessories including rechargeable battery, protective cases, and carrying bag.	
	Technical Specifications	• Measurement: SpO2 (35%-100%) with ±2% accuracy; PR (25-250 bpm) with ±2% accuracy • Display: LCD/LED with backlight, numeric display with plethysmogram • Data Storage: Atleast 50 patient ID with datas • Power Supply: Should Operate on Standard Rechargable batteries • Features: Trend review, pulse-tone modulation, auto power-off, and robust shock-resistant design.	
	Accessories	• battery charger • 2 x spare batteries • carrying bag,	
	Operating Environment	Designed to operate under the purchaser's country-specific conditions, including power supply, climate, and humidity.	
	Standards and Safety Requirements	• ISO13485:2003/AC:2007 • CE certified or USFDA approved	
	User Training	Must provide user training on operation and maintenance.	
	Warranty	Comprehensive warranty for 3 year after acceptance.	
	Maintenance Service During Warranty Period	Preventive and corrective maintenance as required during the warranty period.	
	Installation and Commissioning	Proper onsite commissioning of the equipment.	

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	Documentation	• User manual in English • Technical/maintenance manual in English • List of spare parts with part numbers and costs	

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TECHINICAL SPECIFICATION FOR STRETCHER

S.N	Purchaser's Specifications (F/Y-2081/082)	Bidder's Compliance Sheeet		
	Stretcher with trolley	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	A stretcher is a medical device used to transport patients who are unable to move or walk on their own due to injury, illness, or medical conditions. It is typically a flat platform made of a sturdy frame, often with a mattress or padding, designed to provide support and comfort during patient transport.			
2	**Operational Requirements**			
2.1	Removable stretcher, Supported On the trolley			
3	**System Configuration**			
3.1	Patient stretcher Trolley, complete unit.			
4	**Technical Specifications**			
4.1	High-strength stainless steel or aluminum alloy frame material for durability and lightweight handling.			
4.2	Powder-coated or corrosion-resistant finish for hygiene and longevity.			
4.3	Overall size(approx.): 1950mm(L) x600(W) mm.			
4.4	Fixed height(approx.) :810mm			
4.5	Trolley should be provided with 150-200 mm diameter. Swivels castors wheels,2 with brakes for stability .			
4.6	Removable stretcher, Supported On the trolley			
4.7	Should be Pre-treated and epoxy powder coated			
4.8	Carrying capacity: 180kg or more.			
4.9	Pushing handles at both ends should be covered with PVC sleeves.			
4.1	Should have smooth edges and burr free			
5	**Accessories, spares and consumables**			

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5.1	To be supplied with all standard accessories, spares and consumables for complete functionality of the product.			
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.			
7	**Standards and Safety Requirements**			
7.1	Shall be certified to meet ISO 9001 or ISO 13485:2003/AC:2007 and			
7.2	CE or USFDA approved product certificate.			
8	**User Training**			
8.1	Not applicable			
9	**Warranty**			
9.1	Warranty for 3 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's manual shall be supplied 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. Failure in doing so may lead to rejection of bid from technical committee.

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निमित्त निर्देशक

TECHINICAL SPECIFICATION FOR WHEEL CHAIR

S.N	Purchaser's Specifications(F/Y:81/82)	Bidder's Compliance Sheet
	WHEEL CHAIR	
	Manufacturer:	
	Brand:	
	Type/Model:	
	Country of Origin:	
1.1	Wheel chair is used in hospitals for means of mobility by disabled persons/or persons who have impairments that limit their ability to walk.	
2	**Operational Requirements**	
2.1	It shall be a foldable BUT shall NOT a collapsible type. The mechanism of folding & unfolding must be easy. Large standard adult size hospital wheelchair fixed/ foldable type. Easy maneuverable.	
3	**System Configuration**	
3.1	Wheel chair invalid type.	
4	**Technical Specifications**	
4.1	Must be made of the highest quality materials such as Chrome polished finish or stainless steel.	
4.2	Overall approx. size: 680mm W x 1120mm D x 940mm H.	
4.3	Seat Width: approx.450mm to 470mm.	
4.4	Seat Depth:approx. 400mm to 450mm.	
4.5	Wheels to have braking/locking mechanism and self-propelling SS hoops; two swivel castors (200mm dia. approx.) in front.	
4.6	Tire fitted with self-propelling hoops and brake arrangements.	
4.7	Tire sizes: Rear approx. 600mm (24") solid Mag tyres or Bicycle type spoked wheels, and Front approx. 200mm (8") Mag swivel casters.	
4.8	Armrests: Full, Padded, Fixed height.	
4.9	5cm thick, PU foam cushioned waterproof upholstery and easy to clean.	

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4.1	Padded back rest, seat and push handle.	
4.11	Footrests: Fixed height and swing away foot plates made of Aluminium.	
4.12	Maximum Patient weight capacity: approx. 180kg.	
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 Climate, Temperature, Humidity, etc.	
7	**Standards and Safety Requirements**	
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Not applicable.	
9	**Warranty**	
9.1	Comprehensive 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**	
12.2	User's manual shall be supplied in English.	

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COLOR FOETAL DOPPLER UNIT				
S.N	Technical Specification	Bidder's Compliance Sheet		
	COLOR FOETAL DOPPLER UNIT (F/Y-2081/082)	Yes/No	Page no in Catalogue	Remarks
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
1.1	Doppler foetal heart detector is a handheld ultrasound transducer used to detect the heartbeat of a foetus for prenatal care.			
2	**Operational Requirements**			
2.1	Shall be handheld, lightweight and easy to carry.			
3	**System Configuration**			
3.1	Doppler, Foetal Heart Detector, complete with accessories.			
4	**Technical Specifications**			
4.1	Doppler based foetal heart rate detector with built in speaker and colour LCD display			
4.2	Ultrasonic working frequency, approx.: 3MHz			
4.3	FHR measurement ranger and display range shall be approx. 50 - 210 bpm			
4.4	Doppler shall have countinous mode of operation			
4.5	Accuracy should be ±2 bpm			
4.6	Colour LCD/TFT display show real FHR value, average FHR value, battery status and volume level,etc.			
4.7	System shall report operational status, malfunctions and low battery with audio-visual alerts.			
4.8	Built-in loudspeaker with volume adjustment.			
4.9	The fetal doppler is designed with an overall sensitivity of approx ≥90dB, ensuring accurate and reliable detection of fetal heartbeats.			
4.1	Shall operate on rechargeable battery with original battery that provides a full charge, allowing atleast 3 hours of continuous use.			
5	**ACCESSORIES**			
5.1	Ultrasound gel - 2 tubes			
5.2	Carry bag - 1 set			
5.3	Rechargeable Battery - 2 set			
5.4	Battery charger - 1 set			

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5.3	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 Shall specify the quantity of every item included in their offer. (including items not listed 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, 50 Hz Single phased fitted with appropriate 3 pin plug (FLAT) or DC supply with adapter . The power cable Shall be at least 3m long.			
7	**STANDARDS AND SAFETY REQUIREMENTS**			
7.1	Shall submit ISO13485:2003/AC:2007 for Medical Devices AND			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**TRAINING**			
8.1	Shall provide user training (including application: how to use and maintain the equipment) to concerned user until complete familiarity with the system.			
9	**WARRANTY**			
9.1	Comprehensive warranty for 3 years on system.			
10	**MAINTENANCE DURING SERVICE PERIOD**			
10.1	During warranty period supplier Shall ensure corrective/breakdown maintenance whenever required.			
12	**INSTALLATION, INSPECTION, COMMISSIONING**			
12.1	The bidder Shall 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			
13	**DOCUMENTATION**			
13.1	User (operating) manual in English .			
13.2	Service/ Maintenance manual in English .			
13.4	Manufacturer authorization letter			

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निर्मित निर्देशक

TECHINICAL SPECIFICATION FOR MANUAL SUCTION PUMP

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's Compliance Sheeet		
	Suction Pump	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	A manual suction machine is a portable device used to clear airways by suctioning out fluids such as mucus, blood, or vomit in emergency settings or when powered suction devices are unavailable.			
2	**Operational Requirements**			
	Foot Operated single jar suction pump for Ambulances,hospitals,etc .			
3	**System Configuration**			
	Suction machine with standard accessories.			
4	**Technical Specifications**			
A	Design and Mechanism Type: foot-operated. Mechanism: Piston pump, bellows pump, or squeeze handle (vacuum generation). Operation: Requires no electricity or batteries, suitable for emergencies.			

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B	**Vacuum Pressure** Maximum negative pressure:Approx. 550 mmHg . Adjustable vacuum pressure for different patient needs. **Capacity** Collection canister volume: 300–1000 mL (typically around 500 mL). Transparent, graduated canister for fluid measurement.			
C	Tubing Suction catheter: Medical-grade, flexible tubing. Length: 1–2 meters, depending on the model.			
D	Material Housing: Durable, lightweight plastic or metal. Collection container: Polycarbonate or other shatter-resistant materials. Tubing: PVC or silicone, latex-free.			
E	Weight Lightweight: Typically 0.5–2 kg, for easy portability			
F	Safety Features Overflow prevention valve to avoid fluid backflow. Easy-to-clean design for infection control. Non-slip base or handle for stability during use.			
G	Maintenance Autoclavable components for sterilization (canister, tubing). Replaceable filters and catheters.			

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H	Performance Manual operation rate: Approximately 50–100 mL per stroke. Suitable for both adult and pediatric patients.			
I	Portability Lightweight and compact, suitable for ambulances, field use, and home care. Carrying handle for ease of transport.			
J	Ease of Use Ergonomic design for continuous or intermittent suction. One-hand or foot operation, allowing multitasking in emergencies.			
5	**Accessories, spares and consumables**			
	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.			
6	**Operating Environment**			
A	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country.			
7	**Standards and Safety Requirements**			
A	Shall be certified to meet ISO/ CE Certification.			
8	**User Training**			
	Should provide users training			
9	**Warranty**			
	Warranty for 2year.			

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प्रमित निर्देशक

Surgical ot light , Mobile (LED)

S.N.	Purchaser's Specifications(F.y. 081/82)		Bidder's compliance sheet
	Surgical ot light, Mobile (LED)		
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	Mobile surgical OT light used in hospital for examination and surgical procedure in wards and in treatment rooms etc.		
2	**Operational Requirements**		
2.1	Shall operate on mains electric supply.		
3	**System Configuration**		
3.1	OT light,mobile with all standard accessories.		
4	**Technical Specifications**		
	Number of domes: 1,dome dia: approx. 400mm		
4.1	Mobile medical OT light with sturdy construction and easily moveable.		
4.2	Shall have heavy base with 5 swivel castors, 2 with brakes. Caster must be medical chemical resistant.		
4.3	Low centre of gravity for optimal stability and reach.		
4.4	No of LED:30 or more		
4.5	LED shall have life time more than 50,000 hours of operation.		
4.6	Field-of-view diameter, approximately. 0.15m.		
4.7	Homogeneous illumination across entire field-of-view, approx. 90,000 lux (at 1m).		
4.8	Colour temperature, approximately: 4500K.		
4.9	Intensity control:10-100 digital,		
4.10	Focus adjustment:Adjustable manually		
5	**Accessories, spares and consumables**		
5.1	**Accessories:** • 1 x spare set of fuses.		
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 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 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Power consumption, approximately: 10W.		
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.		

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S.N.	Purchaser's Specifications(v.081.82)	Bidder's compliance sheet
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 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 numbers and costing.	

Bidder must completely fill Technical Specification form.Only yes/no/all complies Should not be written.Page no in the catalogue of all parameters must be clearly Mentioned and highlighted.Failure in doing so may lead to rejection of bid from Technical committee.

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निमित्त निर्देशक

S.N	Technical Specifications of lifesaving instruments set (Health Directorate,Dhankuta),F/Y-081/082	Remarks,Bidder's Offer
1	**Intubation Set**	
	An intubation set is a collection of tools and equipment used to perform endotracheal intubation, a procedure in which a tube is inserted into a patient's airway to ensure adequate ventilation and oxygenation	
a.	Endotracheal Tubes (ETTs): Various sizes (adult, pediatric, neonatal).	
b.	Laryngoscope: • Handles (battery-powered). • Blades (different sizes).	
c.	**Stylet:** A malleable rod to help shape and guide the ETT during insertion.	
d.	**Bougie (Introducer):** A flexible guide for difficult intubations.	
e.	**Suction Equipment:** • Yankauer suction catheter. • Portable or wall-mounted suction device.	
f.	**Face Mask or Bag-Valve-Mask (BVM):** • For pre-oxygenation or ventilation during intubation.	
g.	**Oropharyngeal and Nasopharyngeal Airways:** • Used as adjuncts to maintain the airway before intubation.	
h.	**Magill Forceps:** • For guiding the tube in nasal intubation or removing obstructions.	
i.	**Capnography or CO2 Detector:** • confirm proper tube placement by detecting	

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	exhaled CO2	
j.	**Adhesive or Tube Holder:** • secure the tube post-intubation.	
k.	**Lubricant Jelly:** • ease the insertion of the tube	
2)	**Catheterization set**	
	Catheterization sets for mobile ambulances are designed to facilitate urinary catheterization in emergency or pre-hospital settings	
a.	Catheter	
b.	Lubricating Gel	
c.	Antiseptic Solution or Swabs	
d.	Syringe (10 mL or 20 mL)	
e.	Sterile Gloves	
f.	Fenestrated Sterile Drape	
g.	Drainage Bag	
h.	Adhesive Tape	
i.	Cotton Balls or Gauze Pads	
j.	Urine Measuring Container	
3	**Delivery Sets**	
	delivery set is a sterile kit containing essential tools and materials for performing safe and hygienic deliveries	
a.	Sterile Instruments(scissors,cord clamps,Artery forceps,Needle holder,Tissue forceps)	
b.	Sutures	
c.	Sterile drapes	
d.	Sterile Gloves	
e.	Sterile Gauze and Sponges	
f.	Umbilical Cord Scissors	
g.	Suction Device (Bulb Syringe or Catheter)	
h.	Mucous Extractor	
i.	Kidney Basin	
j.	Perineal Pads or Towels	
k.	Sterile Umbilical Tape	
l.	Antiseptic Solutions	
m.	Thermal Blanket or Wrap	

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4	**Ambu Bag/Bag-valve-mask (BVM),**	
	Ambu bag, also known as a bag-valve-mask (BVM), is a hand-held device used to provide positive-pressure ventilation to patients who are not breathing or not breathing adequately	
	Bag: Medical-grade silicone, PVC, or SEBS (latex-free)	
	Mask: Silicone or polycarbonate with a cushioned edge for a secure seal.	
	Patient Type: • Adult: For patients >30 kg. • Pediatric: For patients between 7–30 kg. • Neonatal: For patients <7 kg.	
	It shall be self-inflatable and must have pop up valve (non-return valve), attachment for oxygen tube & oxygen reservoir	
	Semi-transparent Resuscitator bag adult with face mask of appropriate size deliver max. Tidal volume of approximate 1500 ml, the outer cover of bag should be 100 % latex free, with single shutter patient valve. The bag should be made of silicone rubber.	
	Resuscilators can be autoclaved repeatedly at 131 degree C.	
	It shall be adaptable to all type of face masks.	
5.	**Nebulizer Machine**	
	A **nebulizer machine** is a medical device used to deliver medication in the form of a fine mist directly to the lungs, making it an essential tool for treating respiratory conditions	
	Technical Specifications:	
	Particle Size (MMAD - Mass Median Aerodynamic Diameter): approx. 1–5 microns (ideal for lower respiratory tract delivery).	
	Nebulization Rate: Nebulizer:Approx. 0.2–0.4mL/min	
	Compressor Flow Rate: Approx. 6 L/min airflow.	

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	Operating Noise Level: ~50–60 dB.	
	Power requirements: 240 Volts - 50/60 Hz	
	Accessories: 2 x reusable mouthpiece. 2 x air tubing set. 4 x reusable adult face masks. 2 x reusable paediatric face masks. 2 x air filters (depending on the model supplied).	
	Warranty-2 years	
6	**SPLINTS**	
	Splints are medical devices used to immobilize and support injured bones, joints, or soft tissues. They are essential for emergency care, particularly in ambulances, to stabilize fractures and prevent further injury during transport	
	Durability: Made of materials that can withstand repeated use.	
	Lightweight: Easy to carry and use in emergencies.	
	Adjustability: Can conform to various body shapes and sizes.	
	Patient Comfort: Padded or foam-lined to prevent additional injury or discomfort.	
	Compatibility: *Suitable for use with bandages and immobilization devices. * Radiolucent for diagnostic imaging	
	Easy Maintenance: Reusable splints should be washable or disinfectable.	
	Warranty: Comprehensive warranty for 2 years for all products	
	Training: Should provide users training about usage of the products	
	Certifications: ISO/CE certificates should be provided	

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Technical Specifications for AED

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082 AED	Bidder's Compliance Sheeet Yes/No	Page No. in	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of origin			
1	**Description of Function**			
	Automated External Defibrillator (AED)are portable, life saving devices designed to treat people experiencing sudden cardiac arrest.			
2	**Operational Requirements**			
	It shall operate on internal replaceable batteries.			
3	**System Configuration**			
	Automated External Defibrillator (AED) with complete accessories, for adult and paediatric use			
4	**Technical Specifications**			
A	System should have ManuIt shall be light weight, compact, durable and very easy to use while offering all standard AED functional and Automated External Defibrillation (AED) modes.			
B	It shall be based on biphasic technology and the delivered energy can be escalated to 300J to 360			
C	LCD or LED display of 5" or more for visual instructions and ECG monitoring.			
D	Output energy shall be user configurable			
E	Lightweight (2–4 kg) for easy transport.			
F	Battery Life: Long standby time (3–5 years) and capacity for multiple shocks (100 per charge).			
G	CPR Feedback: Real-time guidance on compression depth and rate during CPR should be available.			
H	Battery: Should have Long-life lithium-ion battery with a shelf life of 3–5 years.			
I	Internal memory to store event data (e.g., ECG and shock history).			
J	Monitor should show both Selected & Delivered Energy.			
K	It shall supplied with the external charger.			
L	Durable, with resistance to dust and water (IPXn).			
M	Shall have Reusable Permanent Paddles (Adult & Pediatric).			

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N	Shall be able to operate within a high range of temperature (-5 to 45 degrees)			
O	Safety standards: against electric shock, against harmful ingress of water and flammable anaesthetic mixture with air, oxygen or nitrous oxide			
5	**Accessories, spares and consumables**			
	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.			
6	**Operating Environment**			
A	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,			
B	*Power supply:* 220 - 240 VAC, 50Hz fitted with appropriate			
7	**Standards and Safety Requirements**			
A	Must comply with ISO13485, European CE or USFDA			
B	IPX standard for Water tolerance and Dust Protection.			
C	IEC 60601 for medical electrical device safety.			
8	**User/Technician Training**			
	Must provide user/technician training (including how to use and maintain the equipment).			
9	**Warranty (written document)**			
A	Comprehensive warranty for 2 years.			
B	During warranty period, supplier must perform bi-annual preventive maintenance and corrective/breakdown maintenance			
10	**Installation and Commissioning**			
	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			
11	**Documentation**			
A	User (Operating) manual in English.			
B	Technical / Maintenance manual in English.			

Note:

Bidder must completely fill the Technical Specification Form (TSF).

Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted.

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INCUBATOR (DIGITAL, 50L)

S.N.	Purchaser's Specifications (Health Directorate,Dhankuta),F/Y-081/082	Bidder's Compliance Sheeet		
	Incubator, 50 Litres	**yes/No**	**Page no in Catlog**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
	Incubator is a closed chamber which heats/chill a sample at a pre-set temperature for long term for applications like culture growth etc.			
2	**Operational Requirements**			
	Microprocessor/Microcontroller based digital controlled system.			
3	**System Configuration**			
	Incubator with 50 Litres or more capacity with all standard accessories.			
4	**Technical Specifications**			
A	Capacity: 50L			
B	Natural convection or forced air convection, with adjustable thermostat for temperature setting.			
C	Temperature adjustable upto 65 °C with temperature resolution of 1°C and temperature stability of ± 0.5°C.			
D	Interior must be made of SS with rounded corners.			
E	Corrosion resistant Stainless Steel interior chamber with minimum 2 shelves removable, at least 1mm thick.			
F	LED/LCD display of parameters with touch button keypad for setting of parameters.			
G	Shall have audio-visual alarm facility for abnormal temperature.			
H	It shall have double door with interior glass and exterior stainless steel.			
5	**Accessories, spares and consumables**			

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	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.			
6	**Operating Environment**			
A	The system offered shall be designed to be stored and to be operated normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
B	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**			
A	Must submit ISO13485 for Medical Devices **AND**			
B	CE (EEC Directives) or USFDA approved product certificate.			
8	**User/Techinician Training**			
	Must provide user/techinician training (including how to use and maintain the equipment).			
9	**Warranty (Written Document)**			
A	Comprehensive warranty for 2 years after acceptance. All damaged spares will be replaced FOC within the warranty period.			
B	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required. And perform PM Bi-Anually.			
10	**Installation and Commissioning**			
	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**			
A	User (Operating) manual in English.			
B	Service (Technical / Maintenance) manual in English.			

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Specification for Stetheoscope

S.N.	Purchaser's Specifications(FY:81/82)	Bidder's Offer
	Stetheoscope Advanced	
	Manufacturer	
	Brand	
	Type/Model	
	Country of Origin	
A	**Description of Function**	
	The stethoscope is a medical device for auscultation, or listening to internal sounds of an animal or human body.	
B	**Technical Specifications**	
a	Double sided Chest piece technology	
b	Chest piece must be copper,High polish machined stainless steel,matt mirror	
c	Diaphragm material must be epoxy/Fiberglass	
d	Net weight Approx.150 gram	
e	latex free	
C	**Warranty**	
a	**Comprehensive warranty for 2 years**	
D	**Documentation**	
a	**User manual should be provided**	

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