Plasma Freezer -40°C

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Plasma Freezer -40°C	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Plasma Freezers are required to preserve blood and blood products, vaccine, plasma etc. at specified temperatures.			
2	**Operational Requirements**			
2.1	The system should be able to preserve plasma in very low temperatures. at -40°C			
3	**Technical Specifications**			
3.1	Internal stainless steel (min. 22g), External: solid outer corrosion resistant (at least 1 mm thickness), CFC-free Insulation			
3.2	Upright Type, Mounted on Lockable Castor Wheels			
3.3	Shelves and trays are 3/4 adjustable and made of non-corrosive stainless steel. The door should project to the side when opened.			
3.4	High density polyurethane foam insulation.			
3.5	Should have the capacity to store plasma bags of 180 or more bags.			
3.6	Operating temperature reachable lowest up to -40 °C with setting accuracy of 0.1° C. Must have adjustable freezer compartment range :-20 °C to -40 °c			
3.7	Should have a fan air cooling system.			
3.8	Should have an automatic defrost facility within a safe temperature range.			
3.9	Should have a heavy-duty, hermetically sealed compressor, an air-cooled refrigeration system that maintains an inner temperature below -40 °C, and refrigerant that is CFC-free or green gas. Noise level less than 60 dBA and low vibration compressor.			
3.10	An ambient temperature of +10 °C to +40 °C			
3.11	It should have a temperature monitoring system on a digital temperature (LED) display with 0.1 °C gradation.			
3.12	It should have a temperature-recording device. Each chart			

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	will record a 7-day cycle.			
3.13	There should be an independent, continuous source of power for alarms.			
3.14	Should have alarm facility for Audio Visual for Power On/Failure, On/Off Display of Compressors, Display of Battery Status, High or Low Temperature, and Door Open or Close system.			
4	**Accessories, spares and consumables**			
4.1	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).			
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: AC 230V ± 10%, 50/60 Hz			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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Bidder must fill the Technical Specification Form (TSF) completely. 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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Sphygmomanometer (BP Apparatus), Digital

S.N.	Purchaser's Specifications				
	Sphygmomanometer (BP Apparatus), Digital		**Yes/No**	**Page No. in Catalogue**	**Remarks**
	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	Should have one touch operation.				
4.2	Should measure the systolic, diastolic and pulse rate and same shall be displayed on screen.				
4.3	Should have LCD digital display.				
4.4	Measurement method: Oscillometric type.				
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	Should inflate automatic by electric pump.				
4.8	Should automatic by pressure release valve.				
4.9	Pressure detection: Capacitive pressure sensor.				
4.10	Shall work on AA alkaline batteries with minimum life for 500 readings.				
4.11	It shall have memory to store last three measurements.				
4.12	Should have auto shut off function.				
4.13	Should come with suitable sizes of reusable arm BP cuffs of adult and paediatric.				
4.14	Should have facility of USB port.				
5	**Accessories, spares and consumables**				
5.1	**Accessories:** • 4 sets of AA alkaline batteries. • 1 x carrying case.				

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S.N.	Purchaser's Specifications			
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	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 1 year 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			
12.3	List of important spare parts and accessories with their part number and costing.			
12.4	Certificate of calibration and inspection from factory.			

Bidder must fill the Technical Specification Form (TSF) completely. 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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NEC - 98"Biomedical

Binocular Microscope Compound

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Binocular Microscope Compound	Yes/No	Page No. in Catalogue	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Compound microscope consists of two or more than two magnifying lenses. One can view individual cells, even living ones. It has high magnification			
2	**Operational Requirements**			
2.1	System complete with illumination system is required.			
3	**System Configuration**			
3.1	Binocular Microscope Compound 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 and 15x without inbuilt pointer. The eyepiece must be aplanatic and have a minimum field number of 18. Dioptre adjustment must be present on one/ both eye pieces or on the eye piece tube			
4.3	Objective: Four 4x, 10x, 40x, 100x.			
4.4	10x and 40x objectives must have numerical apertures of 0.25 and 0.65 respectively and must be of spring loaded type or otherwise.			
4.5	100 x must have numerical aperture of 1.25 and must be of oil immersion and spring loaded type. Suitable prominent marking must be provided on 100x for easy identification.			
4.6	Unbreakable containers to be provided for storing the objectives. All objectives must be wide field, achromatic and par focal.			
4.7	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'			
4.8	Nose piece: Revolving nose piece to accommodate four objectives with click stops. It must be provided with ribbed grip for easy rotation mounted on a precision ball			

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NEC - 98"Biomedical

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	bearing mechanism for smooth and accurate alignment. Extra ports if any must be fitted with dust proof metallic/ebonite caps.			
4.9	Stage Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine vermier graduations (minimum reading accuracy of 0.1 mm). the stage must be provided with spring loaded slide holder for exact positioning of specimen/ slide. It must be designed with convenient sub-stage vertical coaxial adjustment for slide manipulation. The stage must have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/-5mm)			
4.10	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).			
4.11	Sub-stage illuminator: 1.The system must have a build-in variable light source (Illuminator). This light source must have a Led lamp. The circuitry for the light source must include a constant voltage supply. The system must be provided with a step down transformer and an on-off switch and intensity control. The lamp must be provided with a lamp socket which has the facility for easy replacement of the bulb.			
4.12	The Illuminator must have a build-in field diaphragm for Kohler illumination.			
4.13	Eye piece tubes: Binocular eye piece tubes, inclined at 30 and 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range			
4.14	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.			
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/ 50 Hz AC Single phase fitted with appropriate plug to meet purchaser's country requirements. The power cable must be minimum 3 metres long.			
6.3	Voltage corrector/stabilizer of appropriate ratings			

S.F.
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NEC - 98"Biomedical

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	meeting international standards.(Input 160-260 V and output 220-240 V and 50 Hz)			
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**			
9.1	Comprehensive warranty for 2 years 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	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.			

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

S.T.

Sunil Pokhrel
NEC - 98"Biomedical

Technical specification of Autoclave

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Autoclave	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Autoclave shall be able to work under high pressure and high temperature in order to sterilize wrapped instruments, unwrapped instruments, linen, glassware, plastic articles etc.			
2	**Operational Requirements**			
2.1	Vertical electrically heated autoclave with complete accessories.			
3	**Technical Specifications**			
3.1	Operating temperature 121^0C – 134^0C			
3.2	Operating pressure: 15-30 PSI			
3.3	Time range 0-60 min			
3.4	Capacity-Apporx 30 liters or more			
3.5	Must have pressure gauge ,safety valve and steam release cock.			
3.6	Made of Stainless steel on inner and outer layer.			
4	**Accessories, spares and consumables**			
4.1	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).			
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 Requirements: Input voltage 220-240 V/ 50Hz.			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA			

S.P.

Sunil Pokhrel
NEC - 98"Biomedical

	Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

Bidder must fill the Technical Specification Form (TSF) completely. 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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NEC - 98"Biomedical

Hot Air Oven (Small)

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Hot Air Oven	**Yes/No**	**Page No. in Catalogue**	**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	Microprocessor based digital display system.			
3	**System Configuration**			
3.1	Hot Air Oven (Small) with complete accessories			
4	**Technical Specifications**			
4.1	Must be made of double walled chamber, Stainless Steel SS 304 grade.			
4.2	Must provide with three heating elements on three sides of the equipment for uniform temperature on all shelves.			
4.3	Door gaskets shall be made of Silicon.			
4.4	Shall have variable microprocessor based digital temperature controller with digital display.			
4.5	Must have a minimum chamber size of 300mm (L) x 300mm (B) x 300mm (H) with 2 stainless steel perforated trays.			
4.6	Shall have provision of air ventilations.			
4.7	Temperature variation +/- 1 °C			
4.8	Temperature Range: Ambient to 250 °C.			
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 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.			

Sunil Pokhrel
NEC - 98"Biomedical

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
7.3	Must be compliant with IEC 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.			

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NEC - 98"Biomedical

Incubator

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Incubator	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Incubator is a closed chamber which heats/chill a sample at a preset temperature for long term for applications like culture growth etc.			
2	**Operational Requirements**			
2.1	Microprocessor controlled system with digital display			
3	**System Configuration**			
3.1	Incubator with digital display and alarms facility.			
4	**Technical Specifications**			
4.1	Capacity: approx. 30L			
4.2	Interior chamber: Stainless steel for easy cleaning and decontamination.			
4.3	Should have adjustable thermostat for temperature setting.			
4.4	Temperature adjustable from 20 ^{0}C – 70 °C with temperature stability 37 °C and accuracy in the region 30 ^{0}C – 40 ^{0}C (+/- 0. 5°C).			
4.5	Shall have two ventilators.			
4.6	Glass window in the front door for the observation.			
4.7	With minimum two adjustable shelves.			
4.8	Audiovisual Alarm facility			
4.9	Membrane Keypad with LCD/LED to set and display operating parameters.			
4.10	Insulated door fitted with heavy hinges handles locking, mechanical door lock.			
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 ISO13485:2003/AC:2007 for Medical			

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NEC - 98"Biomedical

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Devices AND			
7.2	CE or USFDA approved product certificate.			
7.3	Shall meet IEC 61010-1 safety requirements for electrical equipment for 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	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.			

Bidder must fill the Technical Specification Form (TSF) completely. 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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NEC - 98"Biomedical

Specification of mobile camp portable blood donor chair

S.N.	Purchaser's Specification	Bidder's Compliance Sheet			
	Mobile camp portable blood donor chair.	Yes	No	Page No. in Catalogue	remarks
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
1	**Operational Requirements**				
1.1	Mobile camp portable blood donor chair should be strong, easy to folding and extension and comfortable for blood donor during blood collection in the donation camps.				
2	**System Configuration**				
2.1	Easy to folding and extension and comfortable for blood donor during blood collection in the donation camps. After folding it should be take less space for storing and carrying inside the vehicle.				
3	**Technical Specification**				
3.1	Zero gravity chairs with 112 X 64 X 42 cm with 1.0 mm steel tube, and tube surface with high quality powder coating & tube surface with phosphorization to avoid rusting.				
3.2	The zero gravity chairs are made of durable & brightly colored polyester fabric with water proof.				
3.3	Headrest padded cotton slipcover to protect your chair.				
3.4	Weight bearing capacity not less than 150 kg.				
3.5	It can be three folded save space and easy to carry.				
3.6	It should be light weight 6-8 kg.				
4	**Accessories, spares and consumables**				
4.1	Opens and folds in seconds & no assembly required.				

S.F.

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NEC - 98"Biomedical

	Bidder should be provide two washable covering bed sheet for each blood donor chair.				
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.				
6	**Standards and Safety Requirements**				
6.1	Should submit standard certificate.				
7	**Warranty**				
7.1	Comprehensive warranty for 1 year after acceptance.				

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.

Sunil Pokhrel
NEC - 99"Biomedical

Technical Specification of Centrifuge

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Centrifuge	**Yes/No**	**Page no. in catalogue**	**Remarks**
	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 for analysis			
2	**Operational Requirements**			
2.1	Microprocessor based Controller system			
3	**System Configuration**			
3.1	Centrifuge with 16 tube capacity of 5-15ml			
4	**Technical Specifications**			
4.1	Should have Rotor capacity 16 tubes.			
4.2	Swing out rotor			
4.3	Maximum speed should be atleast 5000 rpm/ RCF 3650g			
4.4	Should have Maintenance free brushless motor			
4.5	Should have LCD Display of set and working parameters			
4.6	Should have microprocessor controller with digital display			
4.7	Should have safety lid interlock to prevent lids opening during centrifugation/electronic safety lid lock			
4.8	Should have Imbalance detection & automatic switch off function.			
4.9	Should have 1-99 minutes Digital timer			
4.10	Body must be made of strong fabricated & corrosion resistant steel			
4.11	Noise less than 60 dB			
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 must be designed to store and be operated normally under the condition of the purchaser's Country. The conditions include Power supply, Climate,			

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Needle destroyer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Needle destroyer	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Needle Destroyer Machine for Hospital & Laboratory uses . Needle destroyers are used to destroy the needles instantly to prevent reuse and manage waste effectively.			
2	**Operational Requirements**			
2.1	Needle Destroyer with complete accessories. The needle should be completely incinerated without visible sparking and arcing			
3	**Technical Specifications**			
3.1	Should have SS sharp blade cutter to cut the nozzle of the syringe			
3.2	Must be able to destroy of all types of needle.			
3.3	Should have provision of removable and reusable collection box for syringe nozzle and needle debris .			
3.4	Should have Provision of on/off switch with pilot lamp			
3.5	Needle destruction rate shall be of 2 seconds per needle.			
3.6	Easy Operation For Destroying Needle & Syringe.			
4	**Accessories, spares and consumables**			
4.1	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).			
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			

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	country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

Bidder must fill the Technical Specification Form (TSF) completely. 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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NEC - 98"Biomedical

Cold Chain Box

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Cold Chain Box	Yes/No	Page No. in Catalogue	Remarks
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Cold box is used to carry whole blood from individual donors to blood bank or from blood bank to point of use.			
2	**Operational Requirements**			
2.1	Cold box made with such material that it is sturdy and light in weight to carry .			
3	**Technical Specifications**			
3.1	Insulation material CFC-free Polyurethane.			
3.2	Insulation thickness 100-120 mm.			
3.3	Each cold box shall contain adequate icepacks.			
3.4	External dimensions 70 x 55 x 50 in cm.			
3.5	Internal dimensions 50 x 34 x 27 in cm.			
3.6	Lid type –Hinged			
3.7	Minimum 25-30 bags can be stored			
3.8	External surface and internal lining material LLDPE (Linear Low Density Polyethylene).			
3.9	Cold life without opening 120-185 hrs. at +45 ^{0}F or better			
4	**Accessories, spares and consumables**			
4.1	Extra icepacks should be provided .			
5	**Operating Environment**			
5.1	Maximum Ice Melting Rate: More than 10 hrs. per 1 kg ice melted during 45 °F cold life test.			
6	**Standards and Safety Requirements**			
6.1	Should meet WHO standard.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure maintenance .			
10	**Installation and Commissioning**			
10.1	Must supply preassembled unit, ready to use.			
11	**Documentation**			
11.1	Manufacturer's certification of compliance of test procedures as per WHO Standards Test Procedures.			
11.2	Certificate of inspection from factory .			

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NEC - 98"Biomedical

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

Sunil Pokhrel
NEC - 98"Biomedical

Blood Collection Monitor

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Blood Collection Monitor	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	This system is used to collect the desired amount of blood from the donor and automatically mixes the blood uniformly with the anticoagulant blood bag.			
2	**Operational Requirements**			
2.1	The system should measure the blood collected, and display the real time volume of blood, blood flow, and alarms wherever required. Mix the anicoagulant and blood continuously .			
3	**Technical Specifications**			
3.1	Should have an LED indication on the commencement of collection.			
3.2	Should have an LED indication and an audible alarm at the collection time.			
3.3	Should have an indication of the time taken for collection.			
3.4	Should have an indication of blood flow with an audio alarm when blood flow is higher or lower than desired.			
3.5	It should have a Continuous display of collection volume flow and time during collection.			
3.6	It should have a facility for automatic clamping at the termination of preset volume collection.			
3.7	It should have the facility to continuously mix blood with anticoagulant at 10–12 rpm.			
3.8	It should have a volume-setting facility for pre-selected volumes to be collected. Measure volume with best accuracy <1%.			
3.9	Should have automatic storage and recall of a set volume facility.			
3.10	It should have a facility for tarring bag volume before collection			

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3.11	Should have a tarring range 0-600g			
3.12	Must be light weight ; not more than 5 kg approx..			
3.13	Must operate on mains as well as inbuilt rechargeable battery. It should operate atleast for 5 hours with battery.			
4	**Accessories, spares and consumables**			
4.1	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).			
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.			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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Sunil Pokhrel
NEC - 98"Biomedical

Blood Bag Tube Sealer

S.N.	Purchaser's Specifications Blood Bag Tube Sealer	Bidder's Compliance Sheet Yes/No	Page No. in Catalogue	Remarks
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Blood bag tube sealer is a compact equipment to seal the blood bag pilot tube by radio frequency sealing system.			
2	**Operational Requirements**			
2.1	Blood bag tube sealer should be able to seal blood bag pilot tubing.			
3	**Technical Specifications**			
3.1	The system should be light weight so that it can be moved easily and able to seal the blood bag tubing quickly and effectively.			
3.2	The system should gently seal the tubing with no hemolysis and leakage using radio frequency.			
3.3	Should be capable to seal the tube of 2–6 mm thickness.			
3.4	The system should run on both mains and batteries.			
3.5	Charger to be supplied with tube sealer.			
3.6	The backup battery should seal more than 1000 seals.			
3.7	Should have a benchtop model.			
3.8	The sealing trigger should be automatic.			
3.9	It should have indication lamps for Sealing Process.			
3.10	The sealing time should be less than 3 seconds.			
4	**Accessories, spares and consumables**			
4.1	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).			
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.			

Sunil Pokhrel
NEC - 98"Biomedical

6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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NEC - 98"Biomedical

Platelet Agitator with Incubator

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Platelet Agitator with Incubator	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Platelets need to be agitated 24/7 and kept in temperature controlled environment for storage. Agitator and incubator provide ideal conditions for storage of platelets			
2	**Operational Requirements**			
2.1	The system should be capable of agitating the platelets and Maintaining the temperature suitable for storage of platelets.			
3	**Technical Specifications**			
3.1	**Platelet Incubator:** Platelet incubator must be made of stainless steel.			
3.2	Should have Microprocessor based operating system .			
3.3	Outer door to be transparent, door with locking facility for "one hand" operation .			
3.4	Should be able to maintain a temperature of 22 +/- 2 °C			
3.5	Should have a digital temperature indicator.			
3.6	Should have a Seven-day inkless chart recorder with battery backup for a minimum of 2 hours of continuous operation during power failure.			
3.7	Should have an audible and visual alarm.			
3.8	Should have the system for High or low alarm for temperature control, battery on/low, Sensor failure, power failure			
3.9	Should have a forced air circulation method for the uniformity of the temperature on all sides of the incubator.			
3.10	Should have a door-opening alarm system.			
3.11	Chamber-mounted electrical outlet for the agitator should be available.			
3.12	**Platelet Agitator:** Internal Surface: Sturdy; Stainless Steel Powder Coated External Surface: Study and Corrosion Resistant			
3.13	Shelves are made of non-slip materials. Corrosion-resistant material, coated with bacteria-resistant material, is perforated to ensure air circulation and has sufficient			

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NEC - 98"Biomedical

	clearance to minimize noise.			
3.14	Gentle side-to-side agitation at 3.6–4 cm side-to-side, 60–70 strokes/min			
3.15	Heavy-duty ball-bearing gear motor for noiseless and continuous operation for 24 hours a day throughout the year.			
3.16	It should have a capacity for 40-50 platelet bags.			
3.17	There should be an independent, continuous source of power for alarms.			
4	**Accessories, spares and consumables**			
4.1	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).			
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.			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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NEC - 98"Biomedical

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NEC - 98"Biomedical

Blood Bank Refrigerated Centrifuge

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Blood Bank Refrigerated Centrifuge	Yes/No	Page No. in Catalogue	Remarks
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Blood Bank Refrigerated centrifuges are designed for separation of blood components like packed cells, platelet rich plasma, platelet Concentrate, plasma.			
2	**Operational Requirements**			
2.1	Programmable Logic Controller system with 8 or more bags capacity. Floor standing model with lockable castors.			
3	**Technical Specifications**			
3.1	Refrigerated centrifuges should have a CFC-free refrigerant.			
3.2	Should have a touch-screen display of 7" or more			
3.3	Should be capable of storing multiple programs for preparing PRBC, plasma, cryoprecipitate, platelet concentrate, washed RBC, etc.			
3.4	Should have a memory with a tamper-proof facility.			
3.5	Should have a stainless steel chamber for easy cleaning and corrosion resistance, with the provision of both a drain and a condensed water collection container.			
3.6	Swing bucket blood bank rotor: Suitable adapters for atleast 8 blood bags of 350 ml. & 450 ml.			
3.7	Should have removable plastic cups with partition to hold single/double/triple/quadruple blood bags.			
3.8	Should be equipped with automatic double lid lock. and open system.			
3.9	Should have PLC-controlled rotor speed to within 10 rpm of the set value.			
3.10	Acceleration and deceleration profiles shall be available .			
3.11	The rotor temperature should be within 1 degree Celsius of the set temperature, regardless of centrifuge speed.			
3.12	It should have a programmable time of 1-99 minutes with			

Sunil Pokhrel
NEC - 98"Biomedical

	a minimum resolution of 1 minute.			
3.13	Temperature range: -20 to 40 degree C			
3.14	Should have auto pre-cooling system.			
3.15	It should have a programmable speed of 0 to 4,200 rpm.			
3.16	It should have a digital display of temperature, speed, time; deceleration; acceleration; and RCF			
3.17	Should have brush less maintenance free motor to ensure less vibration and noise.			
3.18	It should have a motor imbalance detection system. Automatic shutdown of the centrifuge if the rotor load is out of balance with the appropriate indicator.			
3.19	Should incorporate alarms for imbalance detection, lid interlock , over temperature, and rotor over speed.			
3.20	The equipment should be capable of operating continuously for 8 to 12 hours.			
3.21	Should have Safety interlock to prevent door opening during centrifugation .			
3.22	Should have password protected system.			
4	**Accessories, spares and consumables**			
4.1	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).			
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: AC 220-240 V, 50/60 Hz			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			

S.F.

Sunil Pokhrel
NEC - 98"Biomedical

8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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Sunil Pokhrel
NEC - 98"Biomedical

Micro Pipettes

S.N.	Purchaser's Specifications		
	Micro Pipettes	**Yes/No**	**Page No. in Catalogue**
	Manufacturer		
	Brand		
	Type / Model		
	Country of Origin		
1	**Description of Function**		
1.1	Laboratory instrument used to measure small amounts of liquids and transfer a precise amount of fluid from one container to another.		
2	**Operational Requirements**		
2.1	Required in various sizes and compatible with all brands of tips.		
3	**System Configuration**		
3.1	Micropipettes of different sizes.		
4	**Technical Specifications**		
4.1	Micro pipettes required in following sizes: 1-10ul; 10-100ul; 100-1000ul		
4.2	Suitable for all brands of tips.		
4.3	Adjustable for variable volume.		
4.4	Shall have high accuracy and precision.		
4.5	With tip ejector mechanism.		
4.6	Made of corrosion proof material.		
4.7	Fully autoclaveable at 121 ^{0}C.		
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 Climate, Temperature, Humidity, etc.		
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	Not applicable.		
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) and/or Service (Technical / Maintenance) manual in English.		

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NEC - 98"Biomedical

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NEC - 98"Biomedical

Plasma Thawing Bath

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Plasma Thawing Bath	**Yes/No**	**Page No. in Catalogue**	**Remarks**
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	Plasma thawing bath is table top model designed for quick thawing of frozen plasma at 37.0°C.			
2	**Operational Requirements**			
2.1	It thaws plasma units in circulated water			
3	**Technical Specifications**			
3.1	It should have a table top with a top opening. Having a deep thawing chamber with a stirrer and with water maintained at +37 at 1 °C with a pumping mechanism and used for the thawing of fresh frozen			
3.2	Inline heating to ensure uniform thawing			
3.3	System be able to thaw at least 16 or more plasma bags			
3.4	There should be two separate basket assemblies within the built-in fingers for securely holding the plasma bags of all sizes.			
3.5	Should have a tray with individual compartments to ensure that ports of bags may be kept above water level during the procedure.			
3.6	Should give an alarm when the plasma bags are thawed.			
3.7	Should have provision for programmable time setting for length of thawing			
3.8	Should have a digital timer clearly displaying the programmed set time or remaining cycle in minutes.			
3.9	Should have an audio-visual over-temperature alarm system. Should have a system to drain the chamber easily.			
3.10	Should be supplied with a cover to keep the unit covered when not in use.			
3.11	It should have a simple-touse and easy-to-read LED display.			

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Sunil Pokhrel
NEC - 98"Biomedical

3.12	Drain lines with a shut-off valve.			
3.13	Should have removable-type stainless steel trays with partitions for holding plasma bags			
4	**Accessories, spares and consumables**			
4.1	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).			
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 Requirements: Input voltage 220-240 V/ 50Hz.			
6	**Standards and Safety Requirements**			
6.1	Should submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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S.P.

Sunil Pokhrel
NEC - 98"Biomedical

Blood Donor Couch

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Blood Donor Couch	Yes/No	Page No. in Catalogue	Remarks
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1	**Description of Function**			
1.1	Blood Donor Couch is a completely automatic enveloping, variable tilt chair and specially designed to make blood withdrawal easy, safe and functional, and also for other diagnostic and therapeutic areas. Provides a comfortable position for the donor.			
2	**Operational Requirements**			
2.1	Comfortable chair type with soft padding for cushioning and rexin cover.			
3	**System Configuration**			
3.1	Blood Donor Couch complete system and with complete accessories.			
4	**Technical Specifications**			
4.1	Variable positioning for either arm with comfortably wide arm-rests, width at least 100mm.			
4.2	Arm rests have swinging out as well as up and down moving facility.			
4.3	Reclining and upright body positions with a smooth shifting to any position.			
4.4	Both sides have supporting brackets.			
4.5	Seat, back rest and leg rest size designed for donor comfort. Seat height approximately 58 – 60 cm.			
4.6	Adjustable arm rest for donor's comfort and phlebotomist friendly.			
4.7	Comfortable working level for the operator.			
4.8	Lifting capacity - Approx. 200 kg.			
4.9	4 lockable antistatic castors for easy mobility.			
4.10	Storage drawers for storing consumables and blood collection monitors.			
4.11	UP/DOWN control.			
4.12	Easily tilted to head low position, electrically operated: If a vasovagal attack occurs, the Donor's head needs to be lowered immediately and legs should be lifted above heart level so that blood can flow back to the brain and other vital organs. This facility must be available.			
4.13	All electrical actuators and mechanisms must be housed inside the structure making the product safer.			

Sunil Pokhrel
NEC - 98"Biomedical

5	**Accessories, spares and consumables**			
5.1	**Accessories:** • Dust cover -01 • Arm Rests (pair) -01 pair • Remote control -01			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 V AC, 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 (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Electrical safety conforms to standards for electrical safety IEC-60601.			
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	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.			

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NEC - 98"Biomedical

PORTABLE HEMOGLOBIN ANALYSER

S.N.	Purchaser's Specification	Bidder's Compliance Sheet		
	PORTABLE HEMOGLOBIN ANALYSER	Yes/No	Page No. in Catalogue	Remarks
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of origin:			
1	**Description of Function**			
1.1	This device is used for measuring Haemoglobin from the blood instantly.			
2	**Operational Requirements**			
2.1	Hemoglobin measurement should be with capillary,venous or arterial whole blood with disposable micro cuvettes.			
3	**Technical specification**			
3.1	Measurement Range: Should be 0.3-25.6 g/dL			
3.2	Measurement Time: Should not be more than 3sec			
3.3	Sample type: capillary, venous or arterial whole blood sample.			
3.4	Sample Volume: not more than 10 µl			
3.5	Both AC adapter or battery operation should be possible.			
3.6	The instrument should be portable and light weight.			
3.7	Should have large LCD display, capability to connect printer and software for operation using computer.			
3.8	Should be factory calibrated . Provision for blood based liquid calibration for cross checking is preferable.			
3.9	Continuous reading mode & stand by: The device should always be ready for measurement. When not in use, it should automatically go to standby mode.			
3.10	Cuvette should be disposable and come in air tight container with flip cap for easy opening and closing.			
3.11	Micro cuvette should show excellent lot to lot reproducibility			
3.12	Dual wavelength measurement for the compensation of turbidity is required for accuracy.			
3.13	Shelf life of the cuvette must be at least 2 years. It is irrespective of when the pack is opened.			
3.14	Cuvette must be insensitive to humidity and/ or temperature.			
3.15	Cuvette should be capable to be stored at10-40°C.			
3.16	Interface with 1010 port for communication with computer using Basic connect software for data transfer.			
3.17	Should be operable in cold at 10-40° C			

S.P.

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NEC - 98"Biomedical

PORTABLE HEMOGLOBIN ANALYSER

3.18	Quality control: Built in self-test, provision for optional liquid control.			
4	**Accessories, spares and consumables**			
4.1	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).			
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.			
6	**Standard and Safety requirement**			
6.1	Must submit ISO13485:2003/AC: 2007 for Medical Devices.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601.			
6.3	CE and USFDA approved product. Should be able show recommended by WHO for anemia screening certification			
7	**Installation and Training**			
7.1	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.			
7.2	Must provide user training (including how to use and maintain the equipment)			
8	**Support and Maintenance**			
8.1	Warranty: comprehensive warranty for 2 years after acceptance			
8.2	Maintenance service should be there within and after warranty period including preventive and corrective maintenance service whenever required.			
9	**Documentation**			
9.1	User (Operating) manual in English.			
9.2	Certificate of calibration and inspection from factory			
9.3	List of important spare parts and accessories with their part numbers and costing.			

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

Sunil Pokhrel
NEC - 98"Biomedical

Manual Plasma Expressor

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Manual Plasma Expressor	Yes/No	Page No. in Catalogue	Remarks
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	This device extracts blood components plasma from centrifuged blood bags.			
2	**Operational Requirements**			
2.1	The system should be capable of extracting plasma from centrifuged blood bags.			
3	**Technical Specifications**			
3.1	Compressor plate design to exert uniform pressure on donor bag minimizing chances of rapture of bag.			
3.2	Easy to use and portable .			
3.3	The device should have build in thick acrylic pressure plate.			
3.4	Spring loaded front panel should apply pressure on the collected back causing the liquid to contain in transfer bag			
4	**Accessories, spares and consumables**			
4.1	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).			
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 Climate, Temperature, Humidity, etc.			
6	**Standards and Safety Requirements**			
6.1	Must submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			

S A.

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NEC - 98"Biomedical

9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure preventive maintenance and corrective/break down 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.			
11	**Documentation**			
11.1	User (Operating) manual in English.			
11.2	Certificate of calibration and inspection from factory			

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

Sunil Pokhrel
NEC - 99"Biomedical

Blood Bank Refrigerator

S.N.	Purchaser's Specifications Blood Bank Refrigerator	Bidder's Compliance Sheet Yes/No	Page No. in Catalogue	Remarks
	Manufacturer :			
	Brand:			
	Type / Model:			
	Country of Origin:			
1	**Description of Function**			
1.1	A blood bank refrigerator is used to store blood bags under controlled temperature conditions.			
2	**Operational Requirements**			
2.1	The system should store whole blood/PRBC bags at a temperature controlled specifically for efficient storage of whole blood/PRBC. Refrigeration system: CFC-free, refrigerant cooling system, 220-240 V/50 Hz			
3	**Technical Specifications**			
3.1	The system must have high density CFC–free urethane foam insulation to protect cabinet from ambient temperature fluctuation.			
3.2	The system must have positive, forced, air circulation to maintain temperature uniformity at all shelf levels, with quick recovery +/- 1 °C.			
3.3	The system must have automatic condensation removal with no requirement for separate drainage lines			
3.4	Roll-out type drawers, stainless steel scratch-resistant material,Should there be a separator in the drawers, it should be such that blood bags are held in a vertical position with the label side visible.			
3.5	Should have lockable door. Outer door shall be made of glass to see through and inner door shall be made of acrylic sheet to ensure ease of operations, better maintenance of internal temperature.			
3.6	Should have door opening audio and visual display alarm.			
3.7	Door locks should be available.			
3.8	Should have interior lighting or illumination,			
3.9	Should have an auto-defrosting facility.			
3.10	Should have a temperature range of +2 C to +8 ^{0}C and be adjustable with a setting accuracy of 0.1 ^{0}C and a set temperature of + 4 ^{0}C.			
3.11	It should be a fan air cooling system.			
3.12	Ambient temperature of +10 °C to +40 °C.			
3.13	Cooling down time of max of 150 min on half load.			
3.14	Internal temperature holdover time in case of power failure should be at least 1.5 hours.			

Sd.

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NEC - 98"Biomedical

3.15	The temperature monitoring system should have a digital temperature (LED) display with a 0.1 degree Celsius graduation.			
3.16	Should have a temperature-recording device. Each chart has a record a minimum of 7 days.			
3.17	Should have a microprocessor control system for operation, an integrated audio-visual temperature alarm function, and a digital monitoring display.			
3.18	Should have an independent safety thermostat to avoid negative temperatures. It has at least two temperature sensors.			
3.19	Should have a capacity to store approx 150 or more bags.			
3.20	Should have an audio-visual alarm for power-on or failure, On/off display of compressors, Display of battery status, High or low temperature, Door open/close system.			
3.21	Should have Lockable Castor wheels			
3.22	Should have Separated acrylic door for tray.			
4	**Accessories, spares and consumables**			
4.1	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).			
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.			
6	**Standards and Safety Requirements**			
6.1	Must submit ISO13485 and ISO 9001 for Medical Devices and CE (93/42 EEC Directives) or USFDA Approved certificate.			
6.2	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.			
7	**User Training**			
7.1	Must provide user training (including how to use and maintain the equipment).			
8	**Warranty**			
8.1	Comprehensive warranty for 1 year after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure			

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NEC - 98"Biomedical

	preventive maintenance and corrective/break down 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	Certificate of calibration and inspection from factory			

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