Technical Specification of Fully Automatic Hematology Analyzer (5-Parts Differential)

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Fully Automatic Hematology Analyzer (5-Parts Differential)	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer:			
	Brand:			
	Type/Model:			
	Country of Origin:			
Note to the Bidders: **1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** **2. Only Yes/No/Comply should not be written.** **3. Any deviation must be clearly mentioned.** **4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**				
1	**Description of Function**			
1.1	Automated blood cell counter is used to count various types of blood cells in the blood that include reportable IG and retics.			
2	**Operational Requirements**			
2.1	There should be at least 30 reportable parameters including reportable Immature granulocytes and body fluid parameters.			
2.2	The system should be able to analysis body fluid without extra reagent.			
2.3	The system should have additional parameter reticulocyte and another retics fraction.			
3	**System Configuration**			
3.1	Automatic Cell Counter, complete unit with all standard accessories.			
4	**Technical Specification**			
4.1	Measurement Principle DC sheath flow detection (RBC, PLT, HCT), cyanide free (HGB), retics, wbc and body fluid (fluorescent flow cytometry)			
4.2	Sample volume: Whole blood up to 30µL			
4.3	Throughput: Atleast 70 samples per hour for CBC and Differential.			
4.4	It should use cyanide free hemolyzing reagent.			
4.5	The sampling probe must be automatically cleaned off, so that any blood stack doesn't occur.			
4.6	On board meeting for minimum 10000 tests records including histogram.			
4.7	Automatic start-up, self-checks, rinsing and cleaning.			
5	**Accessories, spares and consumables**			
5.1	The instrument should be supplied with all Reagents & consumables, calibrators & controls required to do at least 200 tests to be supplied during installation.			

5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power Supply: 220-20 VAC, 50Hz fitted with appropriate plug.			
6.3	Suitable UPS for minimum 30 min. backup for the entire system.			
7	**Standard and Safety Requirements**			
7.1	Must submit ISO13485 for Medical Devices AND			
7.2	Must submit CE Marked compliance with in-Vitro Diagnostic Medical Device Directive 98/79/EC and USFDA(510k) approved certificates.			
8	**User Training**			
8.1	Must provide user training and technical training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Warranty for 1 year after acceptance.			
10	**Maintain 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	Certified of calibration and inspection from factory.			
12.5	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Binocular Microscope (LED)

S.N	Purchaser's Specifications	Bidder's Compliance Sheet		
	Binocular Microscope (LED)	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: 1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** 2. **Only Yes/No/Comply should not be written.** 3. **Any deviation must be clearly mentioned.** 4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**				
1	**Description of Function**			
1.1	A microscope fitted with double eyepieces for vision with both eyes is a Binocular Microscope. The purpose in dividing the same image from a single objective of the usual compound micro-scope is to reduce eyestrain and muscular fatigue which may result from monocular, high-power microscopy.			
2	**Operational Requirements**			
2.1	System complete with illumination system and research quality optics is required.			
3	**System Configuration**			
3.1	Binocular Microscope (LED) with all the necessary adapters and power cords.			
4	**Technical Specifications**			
4.1	**Optical System:** infinite Optical System			
4.2	Objectives: Achromatic objectives, anti-fungus 4x/0.10,10x/0.25, 40x/0.65, 100x/1.25 (oil)			
4.3	**Illumination:** LED illumination (more than 20,000 hrs of operation)			
4.4	**Focusing:** Binocular head. Stage height movement, Coarse adjustment limit stopper, Torque adjustment for course adjustment knob, Fine focus knob Inclination: 30 degree Rotation: 360 degree			
4.5	**Revolving Nosepiece:** Fixed quadruple nosepiece.			
4.6	**Observation tube:**			

S.N	Purchaser's Specifications	Bidder's Compliance Sheet		
	Observation tube must be Binocular compensation free with side & top of design with two working heights with an ergonomic head inclination at 30 Interpupillary distance adjustment must be from 48-75mm., Endpoint adjustment: approx.370-430mm			
4.7	**Stage:** Mechanical fixed stage wire movement, X-Y travelling area approx.75mm(X)x 30mm(Y),Specimen position scale and Specimen holder.			
4.8	Aluminium die- cast body with all critical movement based on ball bearing & wire guides thereby ensuring smooth & precise manipulation.			
4.9	Should adjustable eye point for comfort of different heights users.			
4.10	Eye pieces must be WF 10x FN:20(aniti-fungus)			
	The focusing knob offers durable movement with a coaxial design to enable precise coarse and fine focus control.			
4.11	Should left and right diopter adjustment enable optimal focus for each eye.			
5	**Accessories, spares and consumables**			
5.1	**Accessories:** Dust cover.			
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	Universal power supply (100V-240V) through SMPS circuit for constant voltage.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 or better for Medical devices.			
7.2	Must submit CE (93/42 EEC Directives) Approved product certificate certified by authorized body and USFDA listing product.			
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 warranty period supplier must ensure corrective/breakdown maintenance whenever required.			

S.N	Purchaser's Specifications	Bidder's Compliance Sheet		
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper installation & commissioning of equipment onsite.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Laboratory Centrifuge Machine (Digital)

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Laboratory Centrifuge Machine (Digital)		**Yes/ No**	**Ref Docs Page No**	**Remarks**
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
Note to the Bidders: 1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** 2. **Only Yes/No/Comply should not be written.** 3. **Any deviation must be clearly mentioned.** 4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**					
1	**Description of Function**				
1.1	Centrifuges are required in the Laboratory to separate various components of Blood and any other liquid sample for analysis				
2	**Operational Requirements**				
2.1	Clinical electrical centrifuge to be used at blood transfusion center for routine centrifuging tests. The units must be fitted with resiliently mounted motor for vibration free performance.				
3	**System Configuration**				
3.1	Centrifuge desktop type LED display (Speed and time) with touching pad controlled.				
4	**Technical Specifications**				
4.1	Should have maintenance free brushless DC motors.				
4.2	Facilities, adaptors and accessories for min.12 tubes of 10/15 ml				
4.3	Speed: Should have Speed at least 6000 RPM Time Setting: 0-99min, Speed Accuracy: ±30min Max Relative Centrifugal Force (RCF): 5000*g or more				
4.4	Quiet operation and low vibration				
4.5	Speed and imbalance regulator plus lid lock				
4.6	Power switch ON/OFF, and timer control knob				
4.7	Suitable to work on 220-240 Volts, single phase 50- 60 Hz AC supply.				
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.				

6	**Operating Environment**			
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plug (3 pins).			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO 13485 standard certificate			
7.2	Must submit CE or USFDA approved certificate.			
8	**User Training**			
8.1	The Supplier shall conduct onsite user training for this equipment t enable operators to use the equipment properly. The training sha include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by users			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During 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	Certificate of calibration and inspection from factory.			

Technical Specification of Fluorescence Immunoassay Analyzer (POCT)

S.N.	Purchaser's Specifications		Bidder Compliance Sheet		
	Fluorescence Immunoassay Analyzer (POCT)		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
Note to the Bidders: 1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** 2. **Only Yes/No/Comply should not be written.** 3. **Any deviation must be clearly mentioned.** 4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document**					
1	**Description of Function**				
1.1	Fluorescence immunoassay (FIA) is a simple, rapid, and sensitive technique that is used to measure many compounds including drugs, hormones, and proteins.				
2	**Operational Requirements**				
2.1	Portable, light weight electrically operated POCT-europium-based or equivalent Fluorescence immunoassay with inbuilt printer.				
3	**System Configuration**				
3.1	POCT-europium-based or equivalent Fluorescence Immunoassay with complete accessories.				
4	**Technical Specifications**				
4.1	Europium-based, time resolved fluorescence immunoassay analyzer (FIA) by using the Microfluidic Fluorescent Immunoassay kits that accurately measures the concentration of analytes contained in Whole Blood, Plasma, Serum, or Urine etc. or equivalents.				
4.2	Display: Minimum 5" touch Screen.				
4.3	Sample Type: Whole Blood, Plasma, Serum, or Urine				
4.4	Result Time: within less than 15 minutes.				
4.5	It should have touch screen LCD display of min 5 inch or more.				
4.6	The analyzer should display the test process type and process automatically on the screen after the insertion of cartridges to prevent procedural errors.				
4.7	It should have inbuilt thermal printer to print test result.				
4.8	It should be capable of measuring min 40 or more test parameters including inflammation infection, diabetes, vitamin D deficiency, thyroids, anemia, cardiac marker, tumor marker, gastric function, growth hormone etc.				
4.9	The system should have automatic calibration				
4.10	Each test kit should contain data related to lot number, expiry date, manufacturing date, and test type.				

4.11	Test kits should be storable at 2-30 degrees Celsius or more			
4.12	Should have a minimum storage capacity of 10000 results			
4.13	Each test should be individually packed to avoid open vial stability issues.			
4.14	It should have LAN ports for compatibility with Laboratory Information Systems (LIS) or Hospital Information Systems (HIS).			
4.15	The analyzer should feature USB ports for easy software updates and the transfer of test records to a pen drive.			
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.			
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.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 for Medical Devices.			
7.2	Must submit CE/ EU CE IVDR or USFDA (510K) compliance certificate.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after acceptance.			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Documentation**			
10.1	User (Operating) manual in English			
10.2	Service (Technical / Maintenance) manual in English			
10.3	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Semi Auto Biochemistry Analyzer

S.N.	Purchaser's Specification	Bidder's Compliance Sheet		
	Semi Auto Biochemistry Analyzer	**Yes / No**	**Ref Docs Page No**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: 1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** 2. **Only Yes/No/Comply should not be written.** 3. **Any deviation must be clearly mentioned.** 4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document**				
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 organ's 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 up to 20000 patient result with patient ID and graph.			
3.	**System Configuration**			
3.1	Semi-automated chemistry Analyzer within built data processor & LCD touch screen of min. 4-inch TFT Display, inbuilt thermal printer and RS 232 serial port for bidirectional communication or USB etc.			
4.	**Technical Specifications**			
4.1	Light Source: 6V, 10W (Tungsten Halogen Lamp or LED)			
4.2	Wavelength Range: Automatic selection by at least 8 position 2 position free filter wheel ranging 340 - 670 nm.			
4.3	Photometric Range: 0 to 3.0 Absorbance.			
4.4	**Calculation Modes:**			
a.	Absorbance/concentration.			
b.	End point with factor and standard.			
c.	Fixed time with factor and standard.			
d.	Coagulation			
4.5	Option for cuvette mode and aspiration mode.			
4.6	Aspiration system:			
4.7	Programmable sipping volume from 300-1000micro liter.			
4.8	Flow Cell- 10 mm path length			
4.9	Temperature control by Peltier element			

4.10	Minimum inbuilt 10 position of Heating Block should be available.			
4.11	Real time reaction curve with special check and flagging.			
4.12	Automatic emptying of flow cell at the end of each test.			
4.13	Should have Tri level quality control.			
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.			
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.			
7.	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001: 2015 for reagents and kits 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			
10.	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11.	**Installation and Commissioning**			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12.	**Documentation**			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			

Technical Specification of Fully Automatic Biochemistry Analyzer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Fully Automatic Biochemistry Analyzer	**Yes / No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: 1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** 2. **Only Yes/No/Comply should not be written.** 3. **Any deviation must be clearly mentioned.** 4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document**				
1	**Description of Function**			
1.1	A Fully Automated Biochemistry Analyzer is a medical laboratory instrument designed to perform a wide range of biochemical tests on blood, serum, plasma, urine, and other biological samples with minimal human intervention			
2	**Operational Requirements**			
2.1	Must be discrete patient prioritized automated random-access clinical chemistry analyzer, for chemistries in blood, urine and other body fluid complete with all standard reagent, consumables, accessories			
3	**System Configuration**			
3.1	Bench-top design and must be capable of doing at least 100 tests/hr.			
4	**Technical Specifications**			
4.1	**Optical Requirement**			
4.1.1	Absorbance range should be within 0-4A			
4.1.2	Wavelengths: 340 to 700 nm (minimum)			
4.1.3	Light source shall be Halogen tungsten lamp.			
4.2	**Reagent Handling System:**			
4.2.1	Reagent position must be at least 40 positions			
4.2.2	Maximum reagent consumption volume shall be 20-300 µL step by1 µL.			
4.2.3	Reagent probe shall have Liquid level detection, collision protection and inventory check.			
4.2.4	In Built Reagent Cooling System			
4.2.5	Reagent Probe cleaning shall be automatic with internal and external washing			
4.2.6	Must have internal reagent barcode reader system.			
4.3	**Sample Handling**			
4.3.1	Sample loading capacity of at least 40 samples at a time with continuous loading facility			
4.3.2	The sampling volume shall not be more than 2-30 µl			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
4.3.3	Sample probe must have Liquid level detection, Clot detection and collision protection.			
4.3.4	Sample probe shall be automatic with internal and external probe washing.			
4.3.5	Shall have separate sample mixer.			
4.3.6	Must have internal sample barcode reader system.			
4.3.7	Auto-dilution and pre-dilution for sample			
4.4	**Analytical Requirement:**			
4.4.1	Reaction disk must have at least 50 cuvette position.			
4.4.2	The reaction cuvette must be lifelong and must be permanent hard glass type.			
4.4.3	Reaction disk temp shall be 37.C and temp fluctuation ±0.1. C.			
4.4.4	Reaction volume shall be 150-330 µl.			
4.4.5	Water consumption used should not be more than 8L/H.			
4.5	**Calibrator and QC**			
4.5.1	Calibration mode: Real Time, Individual and cumulative quality control. Automatic QC programming required			
4.5.2	Quality control rules: Interactive L-J Charts, Daily, Monthly with data archiving, Automatic QC and Automatic calibration			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 vAC, 50Hz fitted with appropriate plug.			
6.3	Suitable Battery back-up (UPS) with internal battery capacity for up to 30 min.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485 for Medical Devices			
7.2	CE (93/42 EEC Directives) product certificate.			
7.3	Shall meet IEC 61010-1 safety requirements for electrical equipment for measurement, control, and laboratory use.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 years after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	**Documentation**			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English.			
12.3	Certificate of calibration and inspection from factory.			
12.4	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Technical Specification of ESR Analyzer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	ESR Analyzer	**Yes / No**	**Ref Doc. Page No**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: 1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** 2. **Only Yes/No/Comply should not be written.** 3. **Any deviation must be clearly mentioned.** 4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document**				
1	**Description of Function**			
1.1	he ESR Analyzer shall be designed to measure Erythrocyte Sedimentation Rate (ESR) in human blood samples.			
2	**Technical Specifications**			
2.1	Principle: Random Access Modified Westergren Method using Infra-Red photometry.			
2.2	Display: Minimum 3" color TFT touchscreen.			
2.3	Throughput: Minimum 40 samples/hour			
2.4	Test Channels: Minimum 20.			
2.5	Measuring Range: 0 – 140 mm/hour			
2.6	Memory of 1000 sample			
2.7	Audio and Visual indication of Test Status			
2.8	Can be operated at the ambient Temp up to 40° C			
3	**Accessories, spares and consumables**			
3.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning materials, to be included in the offer.			
4	**Operating Environment**			
4.1	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.			
4.2	Power supply: 220-240VAC, 50Hz fitted with appropriate plug.			
5	**Standards and Safety Requirements**			
5.1	Must submit ISO13485 for Medical Devices			
5.2	CE (93/42 EEC Directives) product certificate.			
5.3	Shall meet IEC 61010-1 safety requirements for electrical equipment for measurement, control, and laboratory use.			
6	**User Training**			
6.1	Must provide user training (including how to use and maintain the equipment).			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
7	**Warranty**			
7.1	Comprehensive warranty for 1 years after acceptance.			
8	**Maintenance Service During Warranty Period**			
8.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
9	**Installation and Commissioning**			
9.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
10	**Documentation**			
10.1	User (Operating/ Technical / Maintenance) manual in English.			
10.2	Certificate of calibration and inspection from factory.			
10.3	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Electrolyte Analyzer

S.N.	Purchaser's Specification	Bidder's Compliance Sheet		
Electrolyte Analyzer		**Yes/No**	**Ref Docs Page No.**	**Remarks**
Name of Bidder's:				
Manufacturer:				
Brand:				
Type / Model:				
Country of Origin:				
Note to the Bidders: **1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** **2. Only Yes/No/Comply should not be written.** **3. Any deviation must be clearly mentioned.** **4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**				
1	**Description of Function**			
1.1	ISE electrolyte analyzer for analysis of serum, plasma, urine, whole blood.			
2	**Operational Requirements**			
2.1	Electrolyte analyzer Based on ISE OR BISO technology.			
3	**System Configuration**			
3.1	Electrolyte analyzer with integrated printer and with complete accessories.			
4	**Technical Specifications**			
4.1	Microprocessor controlled electrolyte analyzer which can measure Na+, K+, Cl-.			
4.2	Sample volume: 50 -150ul			
4.3	Sample throughput of minimum 60 samples/hour.			
4.4	Calibration: Should be fully automatic and on demand calibration must also be available			
4.5	Maintenance free electrodes			
4.6	Shall have data display on built in LCD display screen.			
4.7	Standby mode facility user controlled and automatic for economical operations			
4.8	QC: At least 2 different QC level must be available.			
4.9	Storage of minimum 30 QC data should be available.			
4.10	Shall have automatic flagging of abnormal result.			
4.11	Inbuilt thermal printer for printing patient data and facility to interface with computer an external printer.			
4.12	Shall supply reagent pack and electrode for 1000 tests with cleaning solution and one quality control solution and 3 set of printer paper roll for each unit of analyzer.			
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.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO13485 for Medical Devices			
7.2	CE (European CE) or USFDA approved product certificate.			
8	**User Training**			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	**Warranty**			
9.1	Comprehensive warranty for 1 year after acceptance.			
10	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	**Installation and Commissioning**			
11.1	Supplier must accomplish proper installation and commissioning of the equipment on site.			
12	**Documentation**			
12.1	User (Operating) Manual in English			
12.2	The bidder should submit the original brochure or e-copy.			
12.3	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Laboratory Water Bath (Digital)

S.N.	Purchasers Technical Specification		Bidder's Compliance Sheet		
	Laboratory Water Bath		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Model				
	Country of Origin				

Note to the Bidders:

1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.**
2. **Only Yes/No/Comply should not be written.**
3. **Any deviation must be clearly mentioned.**
4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**

1.	**Description of Function**			
1.1	Water bath is laboratory equipment made from a container filled with heated water. It is used to incubate samples in water at a constant temperature over a long period of time.			
2.	**Operational Requirement**			
2.1	Auto Tuning Function for High Precision.			
3.	**System Configuration**			
3.1	Easy to set the Temperature by Touch-key.			
4.	**Technical Specifications**			
4.1	Capacity: 15Ltr or more			
4.2	Inside material: Stainless steel tank			
4.3	Temperature range: RT+5°C to 99°C or better			
4.4	Display: LCD/LED Display			
4.5	Temperature Controller: Digital PID controller.			
4.6	Temperature accuracy: ±0.3°C at 37°C or better			
4.7	Lid: Stainless steel and out site material steel plate with powder coating			
4.8	Safety / Alarm: Cutoff heater automatically in case of lack off water with audible alarm			
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.			
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.			
7.	**Standards and Safety Requirements**			
7.1	Must submit ISO13485 for Medical Devices			
7.2	Must submit CE or USFDA approved certificate.			
8.	**User Training**			
8.1	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**			
9.1	Comprehensive warranty for 1 years after acceptance.			
10.	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with 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.			

Technical Specification of Laboratory Incubator (Digital)

S.N.	Purchasers Technical Specification		Bidder's Compliance Sheet		
	Laboratory Incubator (Digital)		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Model				
	Country of Origin				

Note to the Bidders:

1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.**
2. **Only Yes/No/Comply should not be written.**
3. **Any deviation must be clearly mentioned.**
4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**

1.	**Description of Function**			
1.1	The incubator provides a controlled and optimal environment, maintaining a constant temperature to support the growth of bacteria, viruses, or other pathogens present in clinical specimens. This controlled incubation allows healthcare professionals to conduct microbial testing, identify infectious agents, and tailor appropriate treatments for patients.			
2.	**Operational Requirements**			
2.1	Microprocessor controlled Incubator/Oven (Dual use)			
3.	**System Configuration**			
3.1	Incubator with complete accessories.			
4.	**Technical Specifications**			
4.1	Display: LCD/LED display			
4.2	Capacity: 40 Liter or more			
4.3	Temp Controller: Digital PID controller,			
4.4	Temperature Range: RT+5 to 80°C(Incubator) and 80°C to 200°C(Oven) or better			
4.5	Temp. Range: Ambient $+5^0$C to 35°C or better			
4.6	Temp. Accuracy: ±1°C for Incubator at 37°C and: ±2.5°C in max working temp (Oven) or better			
4.7	Door: Single door, silicone packing magnet door with tempered safety glass door			
4.8	Material: Interior Stainless steel and steel plate with powder coating outer.			
4.9	Circulation: Forced convection			
4.10	Shelves: min. 2 adjustable type			
4.11	Security alarm: Overtime temp., temp Probe damage, etc			
5.	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			

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.			
7.	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 standards for Medical Devices documents			
7.2	CE or US FDA approved 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 planned preventive maintenance (PPM) along with 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.			

Technical Specification of Laboratory Autoclave (Digital)

S.N.	Purchasers Technical Specification		Bidder's Compliance Sheet		
	Laboratory Autoclave (Digital)		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Model				
	Country of Origin				

Note to the Bidders:

1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.**
2. **Only Yes/No/Comply should not be written.**
3. **Any deviation must be clearly mentioned.**
4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**

1.	**Description of Function**			
1.1	Autoclaves are required for sterilizing an object in high temperature and high-pressure steam.			
2.	**Operational Requirement**			
2.1	Electrically heated vertical Table Top steam sterilizer.			
3.	**System Configuration**			
3.1	Microcontroller based autoclave with complete Accessories.			
4.	**Technical Specifications**			
4.1	Autoclave with a manual safety lock, having a minimum capacity of 20 liters or more with auto release pressure when over pressure(Cooker)			
4.2	Made of stainless steel (304) ensures longevity and corrosion resistance, as well as easy cleaning and maintenance			
4.3	Working Temperature: 121°C with Temperature accuracy: ±1°C or better			
4.4	Microcomputer control with LED/LCD digital display with adjustable sterilization temperature and time.			
4.5	Clear and easy-to-read double-scale pressure gauge			
4.6	Self-inflating seal for secure and reliable operation			
4.7	Control Panel: LED/LCD Control panel must display the Temperature and time so easy-to-read gauges and controls for monitoring pressure, temperature and sterilization cycles. The clear display ensures accurate readings and ease of use.			
4.8	Removable trays allow for easy loading and unloading of items while ensuring efficient circulation of steam throughout the portable sterilizer.			
4.9	The lids are made of high-quality stainless steel and can withstand the high pressures and temperatures required for effective sterilization			
4.10	Pressure Gauge: Mechanical Type, 0 ~ 5kg/cm² or better			
4.11	Operating Pressure 0.140Mpa or better			
4.12	Air Exhaust: Adjustable valve			

4.13	Safety Device: Over heat protector, over pressure protector			
4.14	Monitoring Unit: Audio & visible			
5.	**Accessories, spares and consumables**			
5.1	Stainless Wire basket: Min. 2 pcs.			
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 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.			
7.	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 standards for Medical Devices certificate			
7.2	CE (Compliance or EUCE) or USFDA approved certificate.			
8.	**User Training**			
8.1	Ready to use Product			
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 planned preventive maintenance (PPM) along with 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.			

Technical Specification of Laminar Air Flow

S.N.	Purchasers Technical Specification	Bidder's Compliance Sheet		
	Laminar Air Flow	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: **1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** **2. Only Yes/No/Comply should not be written.** **3. Any deviation must be clearly mentioned.** **4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**				
1	**Description of Function**			
1.1	Laminar Airflow is required to make available an environment whose air supply is free of bacteria, fungi, pollen, and practically all air-borne dirt.			
2	**Operational Requirements**			
2.1	The basic equipment shall consist of a HEPA filter, pre-filter, suitable blower assembly, necessary lighting, indicators and controls for the cabinet. The equipment must be mounted on a stand with levelling feet.			
3	**System Configuration**			
3.1	Laminar Air Flow with complete accessories.			
4	**Technical Specifications**			
4.1	Type of Flow: Vertical - Re-circulatory			
4.2	Face Dimensions Approx. 2 Ft (L) X 2 ft. (W) The HEPA filter must have a rated efficiency of 99.97% (or better) at0.3 microns to provide product protection.			
4.3	PRE-FILTER: 99.00% down to 5 microns.			
4.4	Material of construction: Main body and rear panel: Electro-galvanized steel or Mild Steel, oven baked epoxy powder coated finish. Side window (panels): UV stabilized transparent Perspex or polycarbonate. Worktable (surface): SS304 or SS316			
4.5	Airflow: Frontward Horizontally with velocity 0.35-0.50 m/sec			
4.6	Discharge Air Volume: 90 CFM (±10%)			
4.7	Front Windows Acrylic, fixed by clamps.			
4.8	Illumination: LED light with intensity 800 to 1000 LUX			
4.9	Air pressure indicator with manometer. Pressure: digital manometer 0-50mm range.			
4.10	Additional Requirement: Vibration free Gas burner facility on working bench. Drain valve with smooth drainage arrangement. Exhaust ducting as per site requirement			

S.N.	Purchasers Technical Specification	Bidder's Compliance Sheet		
	Laminar Air Flow	**Yes/No**	**Ref Docs Page No.**	**Remarks**
4.11	UV Germicidal lamp intensity >40 microwatt/sq. cm. over the entire work surface			
4.12	Switched and indicators: Individual switches and indicator lamps for blower motor, fluorescent lamp and UV lamp			
5	**Accessories, spares and consumables**			
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length. Power consumption – for the thickness needle of 1.6 mm dia meter consumption should not exceed 5 Amp.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO13485 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10.	**Maintenance Service During Warranty Period**			
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/breakdown maintenance whenever required.			
11	**Documentation**			
11.1	User (Operating) manual in English			
11.2	Certificate of calibration and inspection from factory.			

Technical Specification of Fully Automatic Colorimeter (Digital)

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Fully Automatic Colorimeter (Digital)		Yes/No	Ref Docs Page No.	Remarks
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				

Note to the Bidders:

1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.**
2. **Only Yes/No/Comply should not be written.**
3. **Any deviation must be clearly mentioned.**
4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**

1	**Description of Function**			
1.1	Digital Fully Automatic Colorimeter is a compact and highly accurate device designed for quick and reliable colorimetric analysis in clinical, pharmaceutical, environmental, and educational laboratories.			
2	**Operational Requirements**			
2.1	It shall operate on AC power supply as well as built-in battery.			
3	**System Configuration**			
3.1	Colorimeter with standard accessories			
4	**Technical Specification**			
4.1	Should have min. two modes of operation, absorbance mode and concentration mode or equivalent.			
4.2	Digital Filter System: Features min 8 digital filters that enable accurate wavelength selection within the 400–700 nm spectrum or better.			
4.3	Automatic Operation: Provides automatic zero setting and wavelength selection at the touch of a button, minimizing manual steps and reducing operator error			
4.3	Sample Volume: Requires only 1 mL of solution for measurement, ensuring efficient use of small or limited samples			
4.4	High Accuracy: Designed to deliver precise and reliable absorbance and transmittance measurements consistently			
4.5	Compact Design: Lightweight and space-efficient, making it ideal for benchtop setups and field applications			
4.6	User-Friendly Interface: Features an easy-to-read digital display(LED/LCD) and intuitive controls for simplified operation			
5	**Accessories, spare parts and consumables**			
5.1	Cuvettes: at least 10nos			

5.2	All standard accessories, consumables, and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	**Operating Environment**			
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug and Equipped with an inbuilt rechargeable battery, providing portability and uninterrupted performance.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 13485 Standards Quality for medical devices documents			
7.2	Must submit CE (Compliance or EU-CE) or USFDA approved certificate.			
8	**Installation and Commissioning &User Training**			
8.1	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 & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
10	**Documentation**			
10.1	User (Operating) manual in English			

Technical Specifications of Micropipette Single Channel (Variable 10-100 µl and 100-1000 µl) set

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Micropipette Single Channel Variable		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer:				
	Country of Origin:				
	Model:				
	Brand:				

Note to the Bidders:

1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.**
2. **Only Yes/No/Comply should not be written.**
3. **Any deviation must be clearly mentioned.**
4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**

1	**Description of Function**				
1.1	Laboratory Micro pipette to use for lab sampling preparation.				
2	**Operational Requirements**				
2.1	Different size autoclavable micropipette				
3	**System Configuration**				
3.1	Single channel micropipette with variable volume				
4	**Technical Specification**				
4.1	**Single Channel Micro Pipette Variable** • Fully autoclavable • Ergonomic design provides excellent operating experience • Easy-to-read volume display • Easy calibration and maintenance • provides excellent operating experience • Large display window allows for easy volume identification • Easy calibration and maintenance				
4.2	**Micropipette**	• Single Channel 1. 10-100 µl 2. 100-1000 µl • Increment: 1.0µl • Precision: 0.15-1. • Variable volumes, • fully autoclavable,			
5	**Accessories, spares and consumables**				
5.1	All standard accessories 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.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO13485 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**Documentation**			
8.1	User (Operating) manual in English			
8.2	Certificate of calibration and inspection from factory.			

Technical Specifications of Laboratory Refrigerator (Single Door)

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	lab Refrigerator (Single Door)		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Type/Model				
	Country of Origin				
Note to the Bidders: **1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** **2. Only Yes/No/Comply should not be written.** **3. Any deviation must be clearly mentioned.** **4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**					
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				
2.2	Capacity of storage: min.300 litres				
3	**System Configuration**				
3.1	The system consists of: Refrigerator for lab min. 300L.				
4	**Technical Specifications**				
4.1	Microprocessor based temperature control.				
4.2	Should have min. LCD/LED display and alarm system.				
4.3	Monitor for temperature with alarm, visual and sound, for high/low temperature.				
4.4	Should have inner surface of medical grade compression molded plastic and outer body high grade polished galvanized steel.				
4.5	Auto defrosting. Adjustable shelves of min 5 shelves.				
4.6	Should have uniform cooling by forced air circulation.				
4.7	Should have adjustable powder coated shelves.				
4.8	Interior light to operate when door is opened.				
4.9	Locking door supplied with minimum two keys.				
4.10	Should have clear product visibility with dual glass door				
4.11	Low energy consumption.				
4.12	Low noise level min.50dB.				
4.13	Temperature Range: 2ºC ~ 8ºC				
4.14	Should have optimized temperature uniformity, recovery & stability for best environment for sample storage.				

4.15	Refrigerator should be Single door, upright model (side by side door)			
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.			
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.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO13485 standard certificate.			
7.2	Must submit CE(Compliance or EU-CE) or USFDA approved certificate.			
8	**User Training**			
8.1	Supply shall include user training.			
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 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)/ Service (Technical / Maintenance) manual in English			

Technical Specification of Urine Analyzer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Urine Analyzer	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: **1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** **2. Only Yes/No/Comply should not be written.** **3. Any deviation must be clearly mentioned.** **4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**				
1	**Description of Function**			
1.1	A urine analyzer is used to automatically measure and analyze different chemical parameters in urine samples for diagnosis and monitoring of diseases such as UTI, kidney disease, and diabetes**.**			
2	**Technical Specifications**			
2.1	Urine Analyzer should be Compact with Advanced Technology.			
2.2	Analyzer should base on Reflectance Photometry Principle.			
2.3	Analyzer Should have color display with touch Screen.			
2.4	Throughput should be min.100 Tests/Hr.			
2.5	Analyzer Testing Range should be min.14 Parameters with ACR-PCR Ratio.			
2.6	The instrument must be able to read following strips parameters at least. – Glucose | Protein | Ketone | Blood | Leukocytes | pH | Bilirubin | Urobilinogen | Nitrite | Specific Gravity | Ascorbate | Creatinine | Micro Albumin | Calcium etc.			
2.7	Analyzer should be RFID Based System.			
2.8	Analyzer should have visible Range Detection on (400nm - 700nm).			
2.9	Analyzer should have optional Wireless LIS.			
2.10	Analyzer should have Option for Wireless / Wired Barcode Scanner.			
2.11	Analyzer should have In Built Thermal Printer.			
2.12	Analyzer should have facility of Auto Calibration.			
3	**Accessories, spares and consumables**			
3.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning materials, to be included in the offer.			
4	**Operating Environment**			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
4.1	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.			
4.2	Power supply: 220-240VAC, 50Hz fitted with appropriate plug type D (3 pins).			
5	**Standards and Safety Requirements**			
5.1	Must submit ISO13485 for Medical Devices			
5.2	CE (93/42 EEC Directives) product certificate.			
5.3	Shall meet IEC 61010-1 safety requirements for electrical equipment for measurement, control, and laboratory use.			
6	**User Training**			
6.1	Must provide user training (including how to use and maintain the equipment).			
7	**Warranty**			
7.1	Comprehensive warranty for 1 years after acceptance.			
8	**Maintenance Service During Warranty Period**			
8.1	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
9	**Installation and Commissioning**			
9.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
10	**Documentation**			
10.1	User (Operating) manual in English.			
10.2	Certificate of calibration and inspection from factory.			
10.3	Must Submit Manufacture Authorization/Authorization letter to Bidder provided by Authorized Importer of Nepal, Manufacturer Authorization to Authorized Importer must be Included in this case.			

Technical Specification of Laboratory Blood Tube Roller (Digital)

S.N.	Purchaser's Specifications		Bidder's Compliance Sheet		
	Laboratory Blood Tube Roller (Digital)		**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Manufacturer				
	Brand				
	Model				
	Country of Origin				

Note to the Bidders:

1. **Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.**
2. **Only Yes/No/Comply should not be written.**
3. **Any deviation must be clearly mentioned.**
4. **Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**

1	**Description of Function**			
1.1	The Tube Roller Mixers mix samples through the simultaneously rolling action of the tubes.			
2	**System Configuration**			
2.1	Blood Tube with Complete Accessories.			
3	**Technical Specification**			
3.1	Material MS/SS. With minimum 6 roller design and efficient rolling & cleaning or better.			
3.2	It should have action mode of Rocking / Rolling with minimum 6 tubes better.			
3.3	Speed (rpm): adjustable speed from 10 to 60 rpm via knob or better.			
3.4	Brushless maintenance free DC Motor with less noise.			
3.5	Amplitude: min 20mm Time setting range(min): 1-1200 approx. Mode of Operation: Timer/Continuous.			
3.6	Display: Digital LCD Display with showing of speed and time.			
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.			
5	**Operating Environment**			
5.1	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plug to meet purchaser's country requirements.			
6	**Standards and Safety Requirements**			
6.1	Must submit ISO 13485 for Medical Devices			

6.2	Must submit CE(Compliance or EU-CE) or USFDA approved certificate.			
7	**User Training**			
7.1	The Supplier shall conduct onsite user training for this equipment to enable operators to use the equipment properly.			
8	**Warranty**			
8.1	Comprehensive warranty for 1 years after acceptance.			
9	**Maintenance Service During Warranty Period**			
9.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) along with corrective/ breakdown maintenance whenever required.			
10	**Installation and Commissioning**			
10.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
11	**Documentation**			
11.1	User (Operating) manual in English.			

Technical Specification of Needle Destroyer

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Needle Destroyer	**Yes/No**	**Ref Docs Page No.**	**Remarks**
	Needle Destroyer			
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
Note to the Bidders: **1. Bidders must completely fill the Technical Specification Form (TSF) in detail with corresponding page no. of catalogue/brochure/technical datasheet.** **2. Only Yes/No/Comply should not be written.** **3. Any deviation must be clearly mentioned.** **4. Bidders must submit original catalogue/brochure/technical datasheet with the bid document.**				
1	**Description of Function**			
1.1	Needle & syringe destroyers are used to destroy the needles & syringes instantly to prevent reuse and manage waste management effectively.			
2	**Operational Requirements**			
2.1	Needle & Syringe destroyer electrically operated.			
3	**System Configuration**			
3.1	Electric Needle & Syringe Destroyer (Electro melting type)			
4	**Technical Specifications**			
4.1	Housing Enclosure – Moulded type			
4.2	Shock proof & made of ABS plastic with dust tray of same material.			
4.3	Manual cutter – hardened blade of stainless material			
4.4	Needle burning capacity – to destroy Inj. Needles of length 12.5mm to 80 mm.			
4.5	A needle of 1.6mm diameter & 80 mm length should be destroyed in 1 minute.			
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**			

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet		
	Needle Destroyer	**Yes/No**	**Ref Docs Page No.**	**Remarks**
6.1	The system offered shall be designed to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug.			
7	**Standards and Safety Requirements**			
7.1	Must submit ISO 9001 or ISO13485 for Medical Devices **AND**			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	**Installation and Commissioning & User Training**			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	**Warranty & Maintenance Service During Warranty Period**			
9.1	Comprehensive warranty for 1 year after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	**Documentation**			
10.1	User (Operating) manual in English			
10.2	Certificate of calibration and inspection from factory.			