

**OFFICE OF
THE MANAGING DIRECTOR
NAGA HOSPITAL AUTHORITY KOHIMA
KOHIMA : NAGALAND**

No. NHAK/DBT/S-2/ 2011

Dated 21st January 2010

NOTICE INVITING TENDER

The Naga Hospital Authority Authority Kohima invites sealed tender for supply, transportation to site, installation and commissioning of equipments and other requirement for DBT sponsored project as per enclosed Appendix-I from the reputed Manufacturers /Dealers / Firm / company / financially sound supplier etc. as per **terms and conditions** indicated below:

1. The tender is required to be submitted in two bids viz; 'Technical Bid' and 'Financial Bid' separately superscribing on the envelopes as 'Technical Bid' and 'Financial Bid' respectively mentioning the name of the equipment/schedule and name of the tenderer. Each and every page of the quotation is to be serially numbered and duly signed by authorized signatory/ tenderer. Both the envelopes are to be put in a single envelop superscribing 'Tender for equipment (Schedule number/ Name of the equipment) and name of the tenderer specifying the number of the sealed envelopes enclosed / inserted which will be received up to 12.30 hours on 17.03.2011 and will be opened on the same day at 3.00 PM. The tenderer or his legally empowered representative may remain present at the time of the opening.

2. **Technical Bid** – This should include following

- Tender fee as per Sl. No. 27
- EMD (to be furnished as per instruction given at serial no. 5)
- Catalogue/ literature make and model of the equipment offered along with Local/Regional
- servicing facilities with complete address.
- Undertaking for providing AMC/CMC for 3 years or as mentioned in the specification after expiry of warranty/guarantee period with rate blanked.
- Warranty/ guarantee period
- User list.
- Statement of deviation (parameter-wise) from technical specifications and commercial condition, if any
- Authority letter from manufacturer in case bid is submitted by authorized agent (Annexure-III).
- Certificate of Quality control of the equipment to be supplied
- Copy of PAN card/Copy of VAT Registration Certificate & clearance certificate
- GRN / TIN, copy of Trade license
- Technical details of the quoted items with reference to the tender specification as per APPENDIX -II.

3. **Financial Bid**- It should comprise of the followings –

The information given at technical bid should be reproduced with the price indicated. Any deviation in this regard will render the bid liable for rejection. The price should be inclusive of lump sum prices as per description given at serial number 4 below. The price of AMC/CMC for five year after expiry warranty/guarantee period should be given in the financial bid only. The tender will not be considered without offer of AMC/CMC. Only Technical bid (un priced) shall be opened first and shall

be referred for the technical evaluation. The financial bid of only those tenderers whose technical bid is found acceptable by the technical evaluation committee will be opened by the purchase committee for further action.

4. Rate should be quoted as lump sum price F.O.R. destination in Indian Rupees inclusive of cost of equipment, freight, insurance, transit insurance, packaging, transportation, sales tax/VAT, excise duty and other tax etc. as well as charges for installation and commissioning with all the men & materials required for the same, all inclusive lump sum prices need to be accompanied by a statement indicating a clear 'break up' of lump sum price in its various component adding to arrive at all inclusive lump sum price. No other charge in addition will be payable on any account over and above the lump sum price quoted. Price variation clause will not be acceptable. The rate quoted in ambiguous terms such as 'freight on actual basis' or 'taxes as applicable extra' or 'packaging forwarding extra' will render the bid liable for rejection irrespective of its gradation in respect of lump sum price quoted. Bidders in their own responsibility of whatsoever concession and exemption eligibility applicable to the Institute and shall advise the purchaser and quote accordingly. Bidders shall indicate the actual amount of octroi, excise duty, sales tax etc. which become otherwise payable in the extreme event of Institute authorities being not in a position to release certificate such as octroi exemption certificate, Form-D etc. Tender should be typed in words as well as figures free from erasing / error in typing. The tenderer must attest any erasing/error, otherwise the rate in reference of that particular item shall not be considered. The tenderer along with seal of the firm must sign each page of the tender. The covering letter should indicate the list of enclosures.

5. 1. **EMD-** EMD amount as mentioned in the schedule of items given at Appendix- I in the form of Bank Draft/FDR (Nationalized Bank) pledged in favour of the Managing Director, Naga Hospital Authority Kohima, Nagaland- 797001 must be submitted as Earnest money Deposit along with Technical Bid which shall be refunded to bidders without any interest after finalization of the tender.

5.2. The EMD will be forfeited if the vendor withdraws or amends impaired and derogates from the tender or fails to execute duties on time as per directions of the Institute in any respect within the period of validity of tender.

5.3. (i) EMD will be refunded to the unsuccessful tenderer within thirty days from the date of issue of the supply order to the successful tenderer and no interest would be paid thereon; and (ii) EMD of the successful tenderer will be released only after the firm concerned deposits with the Naga Hospital Authority Kohima, Nagaland, necessary security deposit mentioned in para 6 below. However, EMD may be adjusted towards security deposit on request from the successful contractor. No interest will be paid on the EMD/ security deposit.

6. **Security Deposit:** Security Deposit equivalent of 10 percent of the total cost of the equipments approved shall have to be deposited by the successful tenderer through Demand Draft/ Banker's cheque in favour of Managing Director, Naga Hospital Authority Kohima, Nagaland payable at Kohima on demand or the said amount will be deducted from the bill. The same will be released after fulfillment of contractual obligations and no interest shall be payable thereof.

An **agreement** will be executed with the successful tenderer in the format prescribed by the Institute.

7. **Supply:** Supply shall be made by successful tenderer within 60 days from the date of placement of supply order. Unless otherwise decided by the Institute authority, the contract will stand terminated after expiry of 60 days from the date of placement of supply order at the risk, cost and responsibility of the tenderer.

8. **Penalty for delay in delivery:** Non-performance of the contract provisions may make the bidder liable to be disqualified to participate in any tender for the next 5 years, in addition to forfeiture of EMD / Performance Security and other penal provisions.
9. **Working Demonstration:** Working Demonstration shall be provided to the Technical evaluation Committee within stipulated time frame as and when asked for.
10. **Only manufacturer, authorized distributor/stockiest/Agent** of the firm whose item is being quoted would be considered.
11. **Name, Designation and specimen signature** of the person/ representative authorized by the competent authority of the firm to deal with the tender/ sign the tender document must be enclosed with the tender.
12. (a) Tenderer must provide local address, if any, along with the telephone number and Fax no. with tender for all correspondence.
(b) The firm should also provide the complete address along with telephone and fax no. of the service station from where after sale service will be provided.
13. The bid shall remain valid for 365 (three hundred and sixty five) days after date of tender.
14. **Guarantee/Warranty** – The equipment should be guaranteed/warranted for minimum period of 3 years or as mentioned in the specifications from the date of satisfactory installation.
15. (a) The tenderer shall enclose an undertaking by the manufacturer of the equipment for servicing the equipment and supply the spare parts whenever required at least for five years after completion of warranty/guarantee. In case of CMC (Comprehensive Maintenance Contract) the rate should be quoted inclusive of spares.
(b) The firm should ensure to keep the equipment in working order throughout the year.
(c) In event of equipment covered under CMC/AMC going out of order the fault shall have to attend within 72 hours of lodging the complaint. In case the equipment is not restored in functional order within a reasonable time without acceptable reasons a penalty of 0.5 percent of total cost of AMC/CMC of the equipment per day for the period of the equipment remaining out of order will be levied during AMC/CMC.
(d) During warranty/guarantee period in event of equipment remaining out of order for a period of 72 hours of lodging the complaint without any acceptable reasons penalty of extent of 0.25 percent of the purchase value of the equipment shall be levied for each day of the equipment remaining nonfunctional beyond permissible limit.
16. **For spares** – Along with the rate of AMC a list of commonly used spares with price as on date be also enclosed in the financial bid.
17. One agent cannot represent two manufacturers or quote on their behalf in a particular tender for particular item.

18. **Tenderer** has to submit signed declaration Form given in the main tender document
19. Any other miscellaneous items required for the equipment may also be quoted in the financial bid.
20. **Installation and commissioning:** Tenderer is to specify the total cost that will be required to supply, installation and commissioning of the equipments at allocated site of Naga Hospital Authority Kohima, Nagaland if the entire responsibility is given on turnkey basis. Scope of turnkey includes civil modification, electrical installation, furniture and interior decoration etc.
21. **A certificate from the principal that-**
- (a) Regarding AMC/CMC spares and Any other miscellaneous items (as applicable) of the equipment quoted will be made freely available for at least five/ten years after expiry of warranty/ guarantee period (as per annexure II). **‘To be made part of technical bid’**
- (b) Information regarding appointment of new agent in case of change of agent shall be furnished immediately.
22. Tenderer has to submit signed undertaking on stamp paper of Rs. 100.00 (one hundred only) along with the tender as per enclosed annexure –II. **‘To be made part of technical bid’**
23. Tenderer has to submit manufacturer’s authorization certificate on letter head as per annexure III in case of submitted by agents. **‘To be made part of technical bid’**
24. Payment shall be released after satisfactory installation and commissioning of the equipment.
25. In the event of cancellation of the supply order due to fault of the tenderer the EMD shall be forfeited.
26. The tender will not be accepted after due date and time. If the last date for submission happens to be holiday the last date will be extended to the next working day in the same sequence with no change in timing. If the date of the opening happened to be a holiday it will be extended to the next working day.
27. The sealed tender is to be dropped in the tender box as well be kept in the office of the undersigned within the period and time as mention above. However outstation tenderer, may submit tender/s by speed post / registered post (but not by courier services) to reach the undersigned on or before the date of closing time of the tender. The undersigned will not be responsible for any postal delay and non delivery, mis-delivery in receipt of the tender in due date and time. The tender if sent by post, but not received by undersigned within the stipulated date and time will not be accepted.
28. **Force majeure:** The above condition of delivery period, price reduction & termination etc. are subject to force majeure conditions which are beyond the control of the supplier, do not involve fault or negligence of the supplier and are not anticipated. Such events may include but are not limited to riots, mutinies, war, fire, storm, tempest, flood, epidemics, or other exceptional causes like quarantine restrictions, freight embargoes. On specific request made by the supplier the time period of supply may be extended by the purchaser at his discretion for such period as may be considered reasonable. However, the condition shall not include scarcity of raw materials, power cut, labour dispute, failure of sub-vendor and increase in cost of raw material.

29. The successful tenderer shall have to execute a DEED of contract for supply, transportation, installation and commissioning of the equipment / instruments, training to the staffs of the Institute as per the Direction in the form as may be prescribed by the undersigned in due course.

30. No court outside and other than Nagaland court shall have the jurisdiction in the matter.

31. Managing Director reserves the right to reject / accept any or all tenders without assigning any reason thereof and also has right to place order on one or more firms. No correspondence will be entertained.

N.B – ALL PAGES SHOULD BE SIGNED WITH SEAL OF TENDERER/FIRM.

NAME, SIGNATURE AND ADDRESS OF THE TENDERER WITH RUBBER STAMP

Appendix I
SCHEDULE OF ITEMS

Sl. No	Schedule No.	Instruments/ equipments	Quantity	Earnest Money
1.	01/DBT/2011	High precision laboratory balance 0.001 to 500g	1	3000.00
2.	02/DBT/2011	Automated multiparametric immunoassay analyzer – mini VIDAS blue	1	17,000.00
3.	03/DBT/2011	Fully motorized rotary Microtome	1	12,000.00
4.	04/DBT/2011	PCR and additional accessories	1	50,000.00
5.	05/DBT/2011	Fully automated bio-chemistry analyzer	1	20,000.00
6.	06/DBT/2011	Fully Haematology analyzer	1	17,500.00
7.	07/DBT/2011	Glycosylated Hemoglobin analyzer	1	3500.00
8.	08/DBT/2011	Fully automated tissue processor	1	36,000.00
9.	09/DBT/2011	Binocular Microscope	10	9000.00
10.	10/DBT/2011	Trinocular research microscope (Digital)	1	4000.00
11.	11/DBT/2011	Water purification system	1	15,000.00
12.	12/DBT/2011	Electrophoresis system	1	1600.00
13.	13/DBT/2011	UV Transilluminator - Dual type	1	1500.00
14.	14/DBT/2011	Deep freezer (-80 ^o C)		1250.00
15.	15/DBT/2011	Refrigerator 800 lts capacity (2 - 8 ^o C) (frost free)	1	400.00
16.	16/DBT/2011	Digital pH Meter	1	600.00
17.	17/DBT/2011	Spectro-photometer – Nano Drop 2000	1	9600.00
18.	18/DBT/2011	Digital Hot air oven	1	400.00
19.	19/DBT/2011	Micropipettes	As Specified	3,000.00

20.	20/DBT/2011	Mixmate plate and tube mixer	1	3,000.00
21.	21/DBT/2011	Table top Centrifuge	1	4000.00
22.	22/DBT/2011	Ice Box (labtop cooler) -20 ⁰	1	200.00
23.	23/DBT/2011	Shakers	1	4000.00
24.	24/DBT/2011	Multistainer – automated slide stainer	1	3000.00
25.	25/DBT/2011	Coagulation analyzer	1	3500.00
26.	26/DBT/2011	Vortex	1	600.00
27.	27/DBT/2011	Finnpipettes	1	400.00
28.	28/DBT/2011	Gas Chromatography with Mass Spectrophotometer	1	60,000.00
29.	29/DBT/2011	Microwave oven	1	400.00
30.	30/DBT/2011	Autoclave	1	1200.00
31.	31/DBT/2011	Laminar Air Flow	1	2000.00
32.	32/DBT/2011	Liquid Nitrogen Canisters	2	1400.00
33.	33/DBT/2011	Colorimeter	1	200.00
34.	34/DBT/2011	CO ₂ Incubator	1	7000.00
35.	35/DBT/2011	Digital Water Bath	1	1400.00
36.	36/DBT/2011	Generator (Silent Type)	1	14,000.00
37.	37/DBT/2011	Refrigerated Centrifuge	1	9000.00

Appendix II
TECHNICAL SPECIFICATION

Sl No.	Name of the Equipment	Bidders Name	Technical Specification of the Equipments	Technical Specification Quoted by Bidder	Bidders Deviation, if any
1	High precision laboratory balance 0.001-500g		<p>Optional inbuilt motorized calibration in die-cast enclosure</p> <p>ISO GLP compliance .(optional)</p> <p>Standard bi-directional RS-232 interface</p> <p>Multiple weighing units</p> <p>Polyfunction: % weigh, counting, fill mode, GSM etc.</p> <p>Density determination kit (optional)</p> <p>Backlite LCD/VFD display</p>		
2	Automated multi parametric immunoassay analyzer-mini VIDAS blue		<p>The system should be fully automated walkway immunoassay analyzer based on advanced technology i.e. ELFA, CLIA etc.</p> <p>The system should have independent sample processing section with each section of having six tests at a time.</p> <p>The system should be based on disposable single dose concept with ready to use reagents strips and solid phase receptacle(SCR)</p> <p>The system should be free from any tubing for mixing of reagents.</p> <p>The system should have M.L.E (Master Lot Entry) calibration card, which should be provided with each kit.</p> <p>The system preferably a bench top analyzer with built in/external printer and facility to add external printer.</p> <p>The kits should have minimum pack size of 60 and 30 test kit with all the reagents including calibrator and control provided inside- no additional reagents for running the test.</p> <p>The test kits should have thyroid, fertility, infectious diseases, drug assays (Digoxin, theophyllin) and some emergency tests like Troponin I, Myoglobin,CK-MB,HIV – 4th gen and D-Dimer exclusion,also toxoplasma and CMV Avidity and hepatitis markers.</p> <p>Calibration should have stability for 2-3weeks.</p>		

			All reagents should be bar coded and self life of the kit should be 6 months.		
3	Fully motorized rotary microtome		<p>Fully Automated Rotary microtome should be ergonomically designed.</p> <p>Force compensation system should be available for effortless and uniform hand wheel rotation.</p> <p>Section thickness setting up to 100 µm, with a provision of step-by-step increment</p> <p>Specimen feed of appx. 25 mm (via stepper motor) or above and vertical stroke length of 70 mm. (+/- 5 %)</p> <p>Specimen retraction up to 90µm or above with 5µm increment steps with provision of ON/OFF. Additionally motorized specimen retraction facility must be available</p> <p>Mechanical trimming (500 µm or above) thickness selection facility with different setting step must be available.</p> <p>Easy alteration should be available between trimming and retraction mode</p> <p>Precise specimen orientation of 8° in horizontal and vertical direction.</p> <p>2 motorized forward and backward specimen coarse feed speeds must be available (preferably 300 µm/s and 900 µm/s)</p> <p>Disposable knife holder with lateral displacement facility with finger guard in contrasting colour</p> <p>Hand wheel lockable at any position with additional 12'O'clock locking by simply pulling the handle for easy changing of Specimen and or blade.</p> <p>Slot cover to protect the interior of the instrument from sectioning debris.</p> <p>Spacious Magnetized section waste tray for collecting section debris</p> <p>Section thickness totalizer and section counter</p> <p>Max. Specimen size 50 X 60 X 40 mm</p> <p>High Profile blade (at least one pack of 50 blades.)</p> <p>Sectioning Speed range at least up to 400 mm/s</p> <p>Suppliers' should have good after sales service support with proven track record</p>		

4	Real time PCR system		IVD Approved Real Time PCR System		
			<p>Measures viral load from HIV-1, HBV, HCV, CT and MTB for diagnostic / IVD use. System is certified for use with IVD applications - CE marked</p> <p>Simultaneous amplification and detection - Kinetic PCR</p> <p>System will use 5' nuclease technology for amplification and detection with ready to use IVD kits from Roche</p> <p>Licensed technology for PCR - Inventors and patient holders of PCR</p> <p>Real-time amplification for measuring DNA/RNA from purified samples</p> <p>Quantification assays, Qualitative assays, SNP, Gene Expression, Allelic discrimination possible</p> <p>Potential to run SYBR Green and Taqman assays</p> <p>Open system for using with Home-Brew diagnostic kits with utility channel</p> <p>Hardware</p> <p>Sample throughput - 48 tests per run</p> <p>Broad dynamic range - up to 10⁷</p> <p>No of assays per single run - 2</p> <p>Reaction volumes - 70 to 100 ul per test</p> <p>Assay times - 2.5 hours</p> <p>Temperature range - 40°C - 98°C with a ramp rate of 1.2°C / sec</p> <p>Four excitation filters and four emission filters to cover wide chemistries.</p> <p>Four excitation filters and four emission filters to cover wide chemistries.</p> <p>Dedicated optical path for each well to avoid cross talk</p> <p>Light Source – halogen lamp with heat saving future</p> <p>System uses closed plastic K tubes to avoid any cross contamination</p> <p>Built in barcode reader</p> <p>Utility channel (10 no's) for running customer developed protocols</p> <p>Power supply 220 V / 50 Hz</p> <p>Compatible Printer</p> <p>Plate centrifuge of 4600xg</p> <p>48 Operators Manual</p> <p>Amplilink Data Station</p>		

		<p>HBV 48 Tests HCV 48 Tests</p> <p>Additional Accessories</p> <p>Comprehensive training for lab staff and support service at free of cost.</p> <p>All consumables required for installation and standardization of system to be given free of cost.</p> <p>Warranty for a minimum period of 5 years and CMC for additional 5years with service centers either local or regional with provision for service within 24 hours. Consumable products should be listed for 5 years. Other Accessories to be included</p> <p>Price of consumables, reagents and accessories shall be offered for a period of 5 years.</p> <p>List of important spare parts and accessories with their costing</p> <p>Should have all the accessories required for the functioning of the equipment.</p>		
5	Fully automated bio-chemistry analyzer	<p>Discrete, fully-selective system for clinical Chemistry, ISE</p> <p>Test throughput- 60-85 photometric tests/hr 180 ISE tests/hr 60-100 tests/hr photometric and ISE mixed</p> <p>Sample types - Serum, plasma, urine, whole blood (HbA1c)</p> <p>Sample input -Continuous loading of primary and secondary tubes into 8 sample positions. Priority STAT sampling</p> <p>Time to first result 5-10 min for photometric measurements 2 min for ISE measurements</p> <p>Sample container types Primary tubes 5-10mL; 16x100, 16x75, 13x100, 13x75 Sample cup 2.5mL Micro Cup 1.5mL Cup on tube Cup on 16x75mm tube False bottom tube</p> <p>Sample volume Min. sample volume: Primary tubes 500µL Sample cup 75µL</p>		

			<p>Micro cup 50ml</p> <p>Sample barcode types Code 128, Coda bar 2 of 7, Interleaved 2 of 5, Code 3 of 9</p> <p>Sample dilution 1.2-100 times</p> <p>Photometer 12 wavelengths, 20 W halogen lamp, monochromatic and bichromatic measurement</p> <p>Measurement principles Absorbance photometry (enzymes, substrates, specific proteins) Ion selective electrode, indirect measurement (dilution 1:6)</p> <p>Reagents ISE: Na+, K+, Cl- 2D bar-coded system reagent bottles, 50-200 tests/bottle Photometric: 27 onboard reagent positions for approx. 14 assays Up to 8 exchangeable reagent discs available</p> <p>Reaction cells Disposable micro-cuvette</p> <p>Control unit 5.7" color touch-screen LCD (1/4 VGA)</p> <p>System interfaces 2 x RS 232 serial interface, bi-directional (ASTM protocol) for host and barcode scanner 2 x USB 1.1/2.0 for modem and memory stick (data loading and backup)</p> <p>Electrical requirements Line voltage 100-125 V and 200-240 V AC (-15%, +10%) Line frequency 50 Hz ($\pm 5\%$) and 60 Hz ($\pm 5\%$) Power consumption 250 VA (320 VA with ISE) Installation category II (IEC 61010-1)</p> <p>Water requirements Up to 2 liters/day NCCLS Type II (conductivity $< 1\mu\text{S/cm}$ at 25°C) Regulatory requirements GS, CE, UL, C-UL</p>		
6	Fully haematology analyzer		<p>Should be a fully automated three part differential hematology analyzer providing 18-20 parameters i.e. RBC, HCT, MCV, RDW%, RDW(a), MCH, MCHC, HGB, PLT, MPV, WBC, LYMa, MIDa, GRAa, LYM%, MID%, GRAN%, PDW, PCT, LPCR</p> <p>The system should give the differential count as lymphocytes, mixed Population & neutrophils while mixed population should include eosinophils, basophils and monocytes.</p>		

		<p>The system should be capable of processing samples at a speed of 60 Samples per hour or more.</p> <p>Should have whole blood, pre-dilute mode, direct micro capillary inlet (MCI) and use sample volume .whole blood .90 fÊl, MCI:20 fÊl, Predilute mode:20 fÊl dilution ratio.</p> <p>The system should be sample rotary valve (SRV) based for the precise sample aliquoting for dilutions. SRV should be preferably stainless steel with minimum maintenance.</p> <p>The system should have large LCD display to have a review of all the results along with the three histograms of WBC, RBC and PLT on the screen. The system should have an option to print the results with or without histograms also with the option to print only basic 8 parameters.</p> <p>The system should have around 10,000 samples test result memory</p> <p>The system should have auto probe washing to clean the sample probe Automatically after sample aspiration.</p> <p>The system should use non cyanide based reagent for HGB estimation.</p> <p>The system should have automatic floating thresholds for the correct separation of RBC fs and PLT fs during overlap in cases of microcytosis/large Platelet.</p> <p>Measurement range-WBC 0.0-99.9 ~109 /l, RBC-0.0-14 ~1012 /l, HGB-0.0-99.9 g/dl, MCV 15-250 fl, PLT 0.0-1999 E109 /L.</p> <p>System should require minimum daily maintenance preferably without daily startup and shutdown cost.</p> <p>The system should have a low cost per test. All reagents required should be available locally from the company or its authorized distributor.</p> <p>The system should have an option to be purchased against buyback of old instrument.</p> <p>Reagent and hidden cost of the instrument with up gradation facilities.</p> <p>To provide reagents for initial 2,000 tests.</p> <p>Compatible reputed make online UPS of appropriate capacity to be provided along with the equipment with at least 1hour backup.</p> <p>Should have software and hardware to communicate with laboratory Personal computer.</p>		
--	--	--	--	--

		<p>Comprehensive training for lab staff and support service at free of cost.</p> <p>Should have inbuilt blood mixer.</p> <p>Should have 3 level QC with Levy Jennings charts and periodic Calibration. Three level internal QC from manufacturer. User friendly graphic interface and automated barcode identification with complimentary updates of software.</p> <p>Should have quality certified from various authentic agency like US FDA,CE etc. Other Accessories to be quoted are: K3 EDTA non vaccum Vacutainer set of sufficient quantity (approx. of 2,000 tests)</p> <p>Assay time: 10 minutes Sample: 10µL fingerstick or venous Small footprint: 140mm (w) x 145mm (d) x 100mm (h) 5.5" (w) x 5.6" (d) x 4.5" (h) Screen display: Multi-language Calibration: Self calibrating, no operator calibration required. Methodology: Boronate affinity chromatography Result storage: 200 results Power supply: AC or four lithium AA batteries Interface: USB port</p>		
8	Fully automated tissue processor	<p>Carousel type Construction with 12 station (10 reagent station, 2 wax bath)</p> <p>Metal containers at each station should have capacity of 1.8 litres.</p> <p>Option for manual raising and rotation of carousel for immediate tissue basket removal or transfer to the next station-using crank.</p> <p>Automatic reheating of wax before basket transfer to a wax bath.</p> <p>Aluminum standard tissue basket-Membrane keypad and LCD screen.</p> <p>Metal tissue baskets – 1 no capacity approx. 80 cassettes to be run at a go.</p> <p>Infiltration time of up to 99 hr 59 minutes & should be separately programmable, for each station.</p>		

9	Binocular microscope	<p>Temperature range of wax baths 45 °C to 65 °C. Excess temperature cut out 75 °C</p> <p>Both immediate and delayed start option must be available.</p> <p>Delayed start function up to 7 days or more.</p> <p>Preferably 1 minute drain time between stations for reduced carry over.</p> <p>Safety feature for automatic immersion of tissue basket in a station in case of mains power failure.</p> <p>Power failure indication including station number and time lapsed in excess of programmed infiltration time.</p> <p>Audible alarm warning in case of error message and completion of tissue processing cycle.</p> <p>Vacuum facility must be available with the instrument & the vacuum facility must be separately selectable for each individual reagent station.</p> <p style="text-align: center;">Suppliers' should have well after sales service support with proven track record.</p> <p>Optical system: colour corrected infinity optical system(CCIS)</p> <p>Observation tube: widefield binocular 30° [F.N.22] widefield binocular 30° [F.N.22]- light distribution 20/80 widefield binocular 30° [F.N.22]- light distribution 0/100</p> <p>Nose piece : reversed quintuple</p> <p>Stage: 174 x 145 mm surface; 76 x 50 mm movement; hard coated coaxial movement and left or right hand controls; torque adjustment of X and Y axis controls</p> <p>Condenser: Swing-out acromat (N.A.0.9/0.13) Abbe condenser 4-position N.A. 1.25 Phase contrast turret condenser [10x,20x,40x,100x and BF] Phase and darkfield contrast N.A.1.25 Phase contrast turret condenser [10X, 40X,100X and DF(10x-40x)]</p> <p>Focus: Z-axis movement: 27mm with stop 42mm stroke; 1µm minimum increments: torque adjustment for coarse:silicon covered focus controls.</p> <p>Illuminations: externally mounted. Trans mitted 6V/30W quartz halogen Koehler illumination.</p>		
---	----------------------	---	--	--

10	Trinocular research microscope(digital)		<p>Eyepiece: Wide field high eye point Eyepieces 10x/22 with diopter adjustment, IPD 48-75mm, height rise up to 62mm, Prism incorporated.</p> <p>Nosepiece: Reversed Sextuple Nosepiece, slot for polarizer</p> <p>Optical System: EC-H CCIS Color Corrected Universal Infinity System.</p> <p>Objective: Anti Fungus EC-H CCIS Infinity Colour Corrected objectives, Multicoated, High contrast and resolution, Lead free (RoHs). CCIS Plan Achromat objective EC-H PL 4X/0.1 CCIS Plan Achromat objective EC-H PL10X/0.25 CCIS Plan Achromat Objective EC-H PL 40X/0.65/S CCIS Plan Achromat Objective EC-H PL 100X /1.25/S-(Oil) Frame: Ergonomic High Rigidity Frame with inbuilt interchangeable filters</p> <p>Observation Tube: Wide field Trinocular tube (F.N.22mm) Viewing Angle 4-30 deg, 360 deg rotation with 35 mm extension, Light beam splitter (0:100/20:80/100:0).</p> <p>Illumination: Built in Koehler illumination quartz halogen 6V/30W with external Lamp .House and intensity control.</p> <p>Stage: Rectangular Mechanical Ceramic Coated & Co-axial Stage, Scratch proof and high chemical resistance 50 mm locking screw Cross travel range 76 x 55 mm to hold two slides, Stage size 174 x 145 mm, with cross movement Stage is rotatable for Photo micrographic reorientation</p> <p>Condenser: Achromat Swing out Condenser, N.A. 0.90/0.13 mm</p> <p>Accessories: Blue filter, immersion oil (5ml), power cord, Allen Hexagonal key, vinyl dust cover;</p> <p>Power Supply: Universal Power Supply 100W-240V</p>		

11	Water purification system		<ul style="list-style-type: none"> • Water Water purification system is required for better results in the lab purification testing. • Attached to pre-filter to take care of fluctuating quantity supply line water • The system should provide continuous Electrodeionized water through impact reverseosmosis (RO) with ultimate flow rate of at least 3-5 liters / hour. • Resistivity 10 – 15 Mega ohm cm. • TOC level <30 to 35 preferably 5-15 ppb. • Bacterial count preferably<1 cfu/ml with volumetric dispensing and auto shut-off facility. • It should have a conductivity meter before and after reverse osmosis, membrane to monitor percentage rejection, inbuilt display to ensure the system operating parameters, audio diagnostic facility, alarm code auto rinse facility, the option of using automatic sanitization module to prevent the Bacterial growth and biofilm formation and built in TOC monitor. • RS 232 port and memory strip perfectly. • Equipment should have Digital display, resistivity and other water quality measurements. • Equipment should be Supported with prefilter with all other accessories complete in all aspect so, that it can be installed by the company service engineers • All consumables required for installation and standardization of the • system to be given free of cost including Tank polyethylene • (aprox.30-60L) pure water storage reservoir. • Online UPS of suitable rating with voltage regulation and spike protection for 60 minutes backup. • Comprehensive training for Lab. Staff at free of cost. • Certificate of calibration and inspection. • List of important spare parts and accessories with their part number and costing. • Warranty for a minimum period of 3 years and CMC for additional 3 years with service centers either local or regional with provision for service within 24 hours. • Manufacturer should have ISO certification for quality standards. 		
12	Electrophoresis System		<ul style="list-style-type: none"> • main chamber, 200 x 200 mm • Primo gel tray, 2 x 40/22- and 2 x 10/2-well combs (1mm), • 2 x gel tray end blocks, • 2 x comb holders, • 2 x well former depth/levelling gauges, • safety cover with leads and instructions 		

13	UV transilluminator		<p>UVSource: 4 x 8watts UV tube Wavelength: 360nm & 254nm Filter: Orange filter UV Shield Cover: Orange Acrylic Shield Input: 220V AC 50-60Hz Fuse: 1 Amps Dimensions: 32cm (L) x 20cm (B) x 14 cm(H) Weight: 4.5 kg</p>		
14	Deep Freezer (-80°C)		<p>Construction</p> <p>Interior and trays made of stainless steel SS 304</p> <p>Exterior made of CRCA sheet galvanized and finished in attractive powder coating</p> <p>High Density formed in place non CFC PUF insulation</p> <p>PUF insulated door with inner stainless steel and magnetic PVC / silicone rubber gasket (twin circuits for -80°C / -86°C models).</p> <p>4 Nos. sub doors made of imported perspex sheets</p> <p>Heavy duty hinges and sleek powerful latches</p> <p>Components are fixed using stainless steel fasteners</p> <p>Hot line around mouth of cabinet to prevents moisture condensation</p> <p>Mounted on heavy duty ball bearing castor wheel for smooth movement.</p> <p>Refrigeration</p> <p>Non CF Chematically sealed compressor</p>		

Cascaded two stage refrigeration for achieving temperature up to -86.5°C Non-CFC, eco - friendly HFC refrigerants

All refrigeration components from Danfoss only

Copper cooling coils of 99.97% purity on all sides of chamber

External rotor motor condensor cooling fans from Ebm Germany

Condensor dust filter.

Control Panel of The system

Microprocessor based temperature controller

Pt-100 RTD sensor

Audio-visual alarms for over temperature, power failure and door ajar

Calibration certificate traceable to national standards

Battery back up for indicator and alarm function

Solid state relays, Finolex cables.

Volume: 550-600 ltr

Min temp: -20 to -86.5°C

Optional Accessories

Microprocessor based weekly chart / strip chart temperature recorder (pen type / inkless)

Line voltage corrector (voltage stabilizer) with Hi / low voltage cut off and time delay restart

Anodized aluminium cryo boxes for storing vials

Racks for holding cryo boxes

Cryo gloves or thermal gloves

<p>15</p>	<p>Refrigerator 800 lts capacity (2-8°C) (Frost free)</p>	<p>Co₂ Backup System.</p> <p>Capacity : 800ltr</p> <p>Doors : double</p> <p>Insulation : PUF insulation</p> <p>Temperature set control : dial/fuzzy logic</p> <p>Defrost facilities : fully automatic/self grain</p> <p>Shelves : flexible height, bottle quards, chill tray, ice tray</p> <p>Operating voltage : AC 160v-260v,50Hz</p> <p>Warranty : 3 years comprehensive warranty along with 3years extended warranty Refrigerator should have caster wheels and door lock facility.</p>		
<p>16</p>	<p>Digital pH Meter</p>	<p>Features : bench top model,auto recognition of pH standards for calibration,method storage facilities,simultaneous display of pH and temperature measurements, self-diagnostics and alert, output withBNC connector /RS232,combination electrode with ATC probe</p> <p>Operating voltage of 220VAC,50 Hz</p> <p>Display : LCD</p> <p>pH range : 0-14</p> <p>Resolution: 0.001Ph/0.1mv</p> <p>Accuracy : ± 0.002/± 0.2mv</p> <p>Calibration points : 3</p> <p>Temperature</p> <p>Range : 0 to 100 °C</p> <p>Resolution: 0.1 °C</p> <p>Accuracy : ±0.1 °C</p> <p>Temperature compensation : auto/manual</p> <p>Warranty : 2years comprehensive warranty along with 3 years warranty (optional)</p>		

17	Spectro-photometer	<p>Optional accessories: calibration standards,electrode filling solutions,spare electrode.</p> <p>Instrument Type Spectrophotometer Minimum Sample Size 0.5 µl Sample Number 1 Path Length 1 mm (auto-ranging to 0.05 mm) Light Source(s) Xenon flash lamp Detector Type 2048 - element linear silicon CCD array Wavelength Range 190 - 840 nm Wavelength Accuracy 1 nm Spectral Resolution ≤ 1.8 nm (FWHM at Hg 253.7 nm) Absorbance Precision 0.002 (1 mm path) Absorbance Accuracy 3% (at 0.74 at 350 nm) Absorbance Range 0.04 - 300 (10 mm equivalent) Detection Limit 2 ng/µl (dsDNA) Maximum Concentration 15,000 ng/µl (dsDNA) Measurement Time < 5 seconds Footprint 14 x 20 cm Weight 2.0 kg Sample Pedestal Material of Construction 303 stainless steel and quartz fiber Operating Voltage 12 vdc Operating Power Consumption 12 - 18 W (max 30 W) Standby Power Consumption 5 W Software Compatibility Microsoft Windows XP (32 bit) with service pack (SP) 2 or later, Windows Vista (32 bit), Windows 7 Professional (32 bit and 64 bit)</p>		
18	Digital Hot air oven	<p>Inner Chamber Dimensions : 305 x 305 x 305 mm Inner Chamber Construction : Stainless Steel No. of Shelf : 1 S. Steel Shelf (removable) Temperature Range : Ambient to 210° C Temperature Sensitivity : ±0.1° C Electric Supply : Single phase 220 Volts, AC Supply Heater Supply : 1000 watt Single Phase (D) x 690 (H) mm.</p>		

19	Micropipettes		<p>Net weight of the unit : 25 kg. Overall Dimensions of the UNIT : 400 (W) x 440</p> <p>Pipettes should be offer easy in lab calibration, quick tip ejecton click volume setting with high accuracy and precision. Fully autoclavable. Ergonomics and comfort-at work features. Should be supplied with ready to use package (stand tip box, and reservoir).</p> <p>Single channel Variable volume colour pipettes 0.5 to 10 µl, 2 to 20 µl, 2 to 200 µl, 100 to 1000 µl: 1no each.</p> <p>Tri-volume autoclavable pipettes of (200 µl,500 µl,1000 µl)& (20 µl,50 µl,100 µl) :1no each</p> <p>8 channel autoclavable Multichannel pipettes of Volume range 5 µl to 50 µl &30 µl -300 µl:1no each</p>		
20	Mixmate plate and tube		<p>MixMate Low volume mixer with integrated vortex function incl. 3 tube holders: PCR 96, 0.5 ml, 1.5/2.0 ml " IvD conform"</p> <p>Special Features: Mixing in a 3-in-1 format Mixes Plates (up to 96- and 384-well formats) , PCR plates (skirted, semi-skirted, unskirted), Deepwell plates, MTPs, 0.2 ml PCR tubes and PCR strips, 0.5 ml, 1.5 ml & 2.0 ml micro test tubes Vortexing numerous tube formats</p> <p>2D Mix-Control Optimized mixing and Anti-spill technology Automatic imbalance detection and extremely quite operation Technical Specifications: Mixing frequency: 300 - 3,000 rpm (in 50 increments) Touch vortexing frequency: 3,500 rpm Adjustable mixing time: 15 s to 99.5 h; continuous Mixing and vortexing radius: 1.5 mm (3 mm mixing stroke) Power supply: 230 V, 50 - 60 Hz Power consumption: 40 W</p>		
21	Table top centrifuge		<p>Speed Max(RPM): 18000rpm or higher 'g' max: 20000 or higher Timer: 1min to 60 min and hold mode Drive system: Maintenance free high torque brush less direct drive motor Display: Digital display of all parameters Warranty: 2 years comprehensive warranty along with 3 years extended warranty(optional) Voltage: 220v, 50 Hz</p>		

		<p>Essential accessories:</p> <ol style="list-style-type: none"> 1. Swing out bucket rotor: <ul style="list-style-type: none"> ➤ Volume: 4x250ml ➤ Max. RPM/g: 5000/4000 ➤ Adaptors: a) 76x5ml-1 no, b) 64x15ml-1no 2. Fixed angle rotor: <ul style="list-style-type: none"> ➤ Volume: 6x80ml ➤ RPM/g: 10000/14000 ➤ Adaptors: a) 6x50ml, b) 6x15ml <p>Any other items required to make the system complete</p> <p>Maintains 32 microtubes below –15 °C for up to 2 hr at room temperature.</p> <p>Molded of durable polycarbonate and filled with non-toxic freezable gel. A convenient alternative to ice buckets for critical samples from temperature fluctuations in the freezer. Holes accommodate tubes:</p> <ul style="list-style-type: none"> • 1.5 mL microtubes or cryogenic vials (with adapters to hold 0.5 mL tubes) • 12-13 mm diameter tubes • 16-17 mm tubes. <p>Domed lid permits storage of taller screw cap microtubes. Lids have gridded write-on surfaces for sample identification.</p>		
22	Ice box (laptop cooler)-20 ⁰ C			
23	Shakers	<p>Model :Digital</p> <p>Shaker type :Orbital</p> <p>Shaking frequency cycles/min :0 to 300</p> <p>Shaking amplitude mm :30</p> <p>Load max kg :15</p> <p>Platform dimensions l x w mm :450 x 450</p> <p>Overall dimensions l x w x h mm :505 x 575 x 120</p> <p>Weight (without attachments) kg :30</p> <p>Electrical requirements :240V 50Hz</p>		
24	Multistainer-automated slide stainer	<p>Automated Slide stainer imported model. The quoted item must be manufactured by a foreign (excluding China) manufacturing company.</p> <p>The system should have high specimen slide throughput up to 200 – 600 slides/hour depending up on the selected program.</p> <p>Programmable for 15 programs of up to at least 25 steps with incubation time setting from 0 sec to 99 mins or</p>		

25	Coagulation analyzer	<p>more</p> <p>Minimum loading Capacity up to minimum 11 slide racks at one time with at least 30 specimens slides/rack</p> <p>Integrated oven with temperature setting from (30- 65)°C for optimal slide drying</p> <p>Provision of various staining protocols (e.g. routine H&E Stain, PAP Stain & other various special types of stains) must be available</p> <p>At least 18 reagent station of minimum 450 ml capacity and minimum 5 wash stations</p> <p>Provision of continuous loading and unloading of slides via Rack entry and Exit door.</p> <p>Fume extraction fan with Charcoal filter to remove hazardous fume</p> <p>Gentle vibration to slide rack during lifting to reduce carryover contamination</p> <p>Audible warning Buzzer in case of any error during operation</p> <p>Easy-to-clean and resistant surfaces made out of polyester epoxy resin and stainless steel.</p> <p>Suppliers should have good after sales service with manufacturer’s factory trained engineers and proven track records.</p> <p>Flexibility</p> <p>Clotting, chromogenic and immunoassay capability</p> <p>5 Test Menu (PT, APTT, Fibrinogen-Clauss, Antithrombin and D-Dimer)</p> <p>Different units for the reportable results</p> <p>Sample ID editable through keypad</p> <p>Easy to use</p> <p>3 reading units: 2 clotting at 660 nm - 1 chromogenic/latex at 405 nm</p>		
----	----------------------	--	--	--

26	Vortex	<p>12 positions for incubation at 37° C</p> <p>Single cuvette usage</p> <p>Minimal consumption of samples and reagents</p> <p>Enhanced features</p> <p>Stored calibrations</p> <p>Editable Automatic indication of errors</p> <p>Built in thermal printer</p> <p>On-Line help feature</p> <p>RS 232 serial interface</p> <p>Multiple language interface (optional)</p> <p>Shaking motion : orbital, 4mm Speed range: 0-1500rpm Speed setting: Analogue Duty: Continuous Operating voltage: 230VAC/50Hz Facility for automatic start on pressing the shaking attachments Accessories: 1. General purpose cup attachment 2. Head attachment for flask 50mlx1 3. Head attachment for 60 micro tube 0.5, 1.5 and 1ml Warranty: 3 years comprehensive warranty along with 3 years extended warranty</p>																	
27	Finn pipettes	<table border="1"> <thead> <tr> <th>Model</th> <th>Increment s</th> <th>Accuracy</th> <th>Precision (CV%)</th> <th>Use Finntips</th> </tr> </thead> <tbody> <tr> <td>0.5-10µL</td> <td>0.1µL</td> <td>±3.5 to 1.0%</td> <td>3.0 to 0.8%</td> <td>250 Universal</td> </tr> <tr> <td>5-50µL</td> <td>0.5</td> <td>±3.0 to 0.6</td> <td>2.5 to 0.3</td> <td>250 Universal, 300, 200 Ext</td> </tr> </tbody> </table>	Model	Increment s	Accuracy	Precision (CV%)	Use Finntips	0.5-10µL	0.1µL	±3.5 to 1.0%	3.0 to 0.8%	250 Universal	5-50µL	0.5	±3.0 to 0.6	2.5 to 0.3	250 Universal, 300, 200 Ext		
Model	Increment s	Accuracy	Precision (CV%)	Use Finntips															
0.5-10µL	0.1µL	±3.5 to 1.0%	3.0 to 0.8%	250 Universal															
5-50µL	0.5	±3.0 to 0.6	2.5 to 0.3	250 Universal, 300, 200 Ext															

28	Gas Chromatography with Mass Spectrophotometer		<p>20-200µL 1.0 ±3.0 to 0.6 1.5 to 0.2 250 Universal, 300, 200 Ext</p> <p>100-1000µL 5.0 ±1.5 to 0.5 0.6 to 0.2 1000, 1000 Ext</p> <p>1-5mL 0.05 ±1.5 to 0.5 0.5 to 0.2 5mL</p>	<p>Local Area Network based Gas Chromatograph Mass Selective Detector System along with Head Space Sampler</p> <ul style="list-style-type: none"> • Gas Chromatograph with 16 VIAL Head Space Sample with overlapping thermostating of one vial sample volume 22 ml, Aluminium. Thermostatic Oven, Sample Temperature set table to off, 35C TO 210C • Optimized Geometry Split/split less Injector, MSD Interface, and Automatic Liquid Interface & Auto Injector <p>Features:</p> <ol style="list-style-type: none"> i) Gas Chromatograph ii) System can use 0.5 mm, 0.25 mm columns iii) System Software should be able to translate current methods to be used on .5mm & a.25m column. vi) System can provide identical retention time across Gas Chromatograph's with varying column length. v) System can provide identical retention time irrespective of detector Type Flame Ionization Detector/Mass Selective Detector/ Electron Capture vi) Detector/ Nitrogen Phosphorus Detector/ Flame Photometric Detector. <p>System can lock retention time using multiple pressure calibration</p> <ol style="list-style-type: none"> vii) Electronically control of inlet, detectors, and auxiliary gases. viii) Detector Data acquisition rate at 200 Hz ix) Oven maximum ramp rate up to 1002 Centigrade x) Local Area Network Based System xi) Upgraded PC with Printer to operate the system must be included xii) MS/Capillary Column suitable for Pesticide Residue /Alcohols/Fatty Acids Methyl Esters <ul style="list-style-type: none"> • Auto sampler: 100 vials/tray <p>Auto sampler/Injector for capillary column. This is controllable from S/W as well as GC key Board.</p> <p>Pre Method & Post Method routines</p> <ul style="list-style-type: none"> • Sequence, recalibration, Braking, Pause for Priority "Samples, additional samples can be added while online, <p>Local Area Network Based MASS SELECTIVE DETECTOR</p> <p>With Turbo molecular pump.</p> <p>(Should Includes basis MSD, Productivity Software, Data Station, Columns, Startup Kit, Consumables.)</p> <ol style="list-style-type: none"> i) Dual filament Ion Source with electronic change over facility ii) Independent control of temperatures for transfer line up to 350C for analyzer 250C, Additionally for manifold 120C Upto 300C Centigrade for Chemical Ionization 		
----	--	--	---	--	--	--

		<ul style="list-style-type: none"> iii) Selected Ion Storage iv) Turbo pumps min. 70 L/S for faster achievement of vacuum. v) Mass range should be up to 650 amu vi) Customized report vii) Software has a facility to identify Co-eluting peaks viii) System can process two signals simultaneously ix) Software has the facility for parametric retrieval x) Local Area Network based system xi) M5-MS capability xii) Pesticides, flavours, fatty acid additives library <p>Comprehensive training for lab staff and support service at free of cost.</p> <p>All consumables required for installation and standardization of system to be given free of cost.</p> <p>Warranty for a minimum period of 5 years and CMC for additional 5years with service centers either local or regional with provision for service within 24 hours.</p> <p>Consumable products should be listed for 5 years. Other Accessories to be included</p> <p>Price of consumables, reagents and accessories shall be offered for a period of 5 years.</p> <p>List of important spare parts and accessories with their costing</p> <p>Should have all the accessories required for the functioning of the equipment.</p> <p>ISO or equivalent international Quality System Certification</p>		
--	--	---	--	--

29	Microwave oven (50-60ltr capacity)		<p>Microwave frequency(MHZ) : 2450 Watts microwave : 900 Watts microwave(consumption): 1350 Watts grill : 1250 Watts convection : 1350 Watts combination : 2650</p> <p>Cooking features intellrowave technology microwave power levels : 5 increase/decrease function</p> <p>Convenient features control type : tact/dial type controls turntable diameter(mm) : 324 cooking completion alarm</p> <p>Safety features child lock : yes</p>																																
30	Autoclave		<table border="1"> <tr> <td>TEMPERATURE</td> <td></td> </tr> <tr> <td>Operating Range</td> <td>105°C to 126°C</td> </tr> <tr> <td>Display Range</td> <td>5°C to 129°C</td> </tr> <tr> <td>GAUGE PRESSURE</td> <td></td> </tr> <tr> <td>Operating Range (gauge)</td> <td>3 to 30 psi (gauge), 0.021 to 0.21MPa</td> </tr> <tr> <td>Maximum Allowable</td> <td>38 psi (gauge), 0.26MPa</td> </tr> <tr> <td>TIMER</td> <td></td> </tr> <tr> <td>Sterilization</td> <td>1 to 999 minutes, or continuous</td> </tr> <tr> <td>Drying</td> <td>1 to 120 minutes</td> </tr> <tr> <td>Chamber (Diameter x Height)</td> <td>50 liter</td> </tr> <tr> <td>SAFETY DEVICES</td> <td>Over-pressure power cutoff, over-temperature power cutoff, low-water power cutoff, mechanical pressure relief valve, over-current detector and circuit breaker</td> </tr> <tr> <td>PROGRAMS</td> <td></td> </tr> <tr> <td>1. For solids with drying</td> <td>Sterilization -> Manual Steam/H2O Exhaust -> Drying -> Completion</td> </tr> <tr> <td>2. For solids w/o drying</td> <td>Sterilization -> Auto Steam Exhaust -> Completion</td> </tr> <tr> <td>3. For liquids</td> <td>Sterilization -> Natural Cooling -> Completion</td> </tr> </table>	TEMPERATURE		Operating Range	105°C to 126°C	Display Range	5°C to 129°C	GAUGE PRESSURE		Operating Range (gauge)	3 to 30 psi (gauge), 0.021 to 0.21MPa	Maximum Allowable	38 psi (gauge), 0.26MPa	TIMER		Sterilization	1 to 999 minutes, or continuous	Drying	1 to 120 minutes	Chamber (Diameter x Height)	50 liter	SAFETY DEVICES	Over-pressure power cutoff, over-temperature power cutoff, low-water power cutoff, mechanical pressure relief valve, over-current detector and circuit breaker	PROGRAMS		1. For solids with drying	Sterilization -> Manual Steam/H2O Exhaust -> Drying -> Completion	2. For solids w/o drying	Sterilization -> Auto Steam Exhaust -> Completion	3. For liquids	Sterilization -> Natural Cooling -> Completion		
TEMPERATURE																																			
Operating Range	105°C to 126°C																																		
Display Range	5°C to 129°C																																		
GAUGE PRESSURE																																			
Operating Range (gauge)	3 to 30 psi (gauge), 0.021 to 0.21MPa																																		
Maximum Allowable	38 psi (gauge), 0.26MPa																																		
TIMER																																			
Sterilization	1 to 999 minutes, or continuous																																		
Drying	1 to 120 minutes																																		
Chamber (Diameter x Height)	50 liter																																		
SAFETY DEVICES	Over-pressure power cutoff, over-temperature power cutoff, low-water power cutoff, mechanical pressure relief valve, over-current detector and circuit breaker																																		
PROGRAMS																																			
1. For solids with drying	Sterilization -> Manual Steam/H2O Exhaust -> Drying -> Completion																																		
2. For solids w/o drying	Sterilization -> Auto Steam Exhaust -> Completion																																		
3. For liquids	Sterilization -> Natural Cooling -> Completion																																		

4. For additional drying	Drying -> Completion
ACCESSORIES	
Stainless steel	Mesh wire baskets, buckets (pails), and test tube rack
POWER	
Source	120V, 50/60 Hz, single phase (220V available on request)
Consumption	2000 watts (2000 VA)

Air Velocity	Between 0.4 to 0.5 mls +-20%
HEPA Efficiency Pre-filter	99.997% at 0.3 microns with DOP test Washable with an arrestance up to 90% at 5 microns Less than 65 dB (A)
Sound Level	Lux 900 - 1300 Lux
Light Intensity Cleanliness	Standard 209 E Class 100
Federal Power Supply	220 V Single phase 50 Hz

• S. S Table Top. • U. V Lights attachment • Front Acrylic Door • Gas/ Vacuum Cock • Castor wheels at the Bottom

31 Laminar air flow (vertical)

32 Liquid nitrogen canisters

Capacity (L)	65.0
Empty Weight (Kg)	27.5
Caliber (mm)	216
Outer Diameter (mm)	573
Height (mm)	730
Static Evaporation Loss Mass (L/d)	0.82
Static Holding Time (d)	79
Number of Racks (n)	5
Measurement of Rack (mm)	142×144
Measurement of Box (mm)	134×134
Number of Vials(n)	Carton Box 2025
	Plastic Box 2025

33	Colorimeter		<p>Model</p> <p>Std. Glass Filter 8</p> <p>Mini Volume 1 ml.</p> <p>Display 125 x 100 mm Ammeter</p> <p>Range 400-700 nm</p> <p>Output OD (0 to 1.99) %T (0 to 100)</p> <p>Resolution OD : 0.01 %T-1%</p> <p>Accuracy 0.5% FSI</p> <p>Detector Selenium Photocell</p> <p>Light Source 6.8v, 300mA</p> <p>Power 230v \pm 10%</p>																												
34	Co ₂ incubator		<table border="1"> <tr> <td>Inner volume (L)</td> <td>212</td> </tr> <tr> <td>Dimensions (DxWxH)mm</td> <td>763x910x795 approx</td> </tr> <tr> <td>Inner dimensions (DxWxH)</td> <td>588x600x600 approx</td> </tr> <tr> <td>Shelves (DxW)mm</td> <td>510x590 Approx</td> </tr> <tr> <td>Number of shelves (standard/Max.)</td> <td>3/10</td> </tr> <tr> <td>Temperature control range(°C)</td> <td>ambient + 5~50</td> </tr> <tr> <td>Temperature control accuracy (°C)</td> <td>\pm0.1</td> </tr> <tr> <td>Temperature sensor</td> <td>PT1000</td> </tr> <tr> <td>CO₂ control range (%)</td> <td>0~20</td> </tr> <tr> <td>CO₂ deviation (%)</td> <td>\pm0.1</td> </tr> <tr> <td>CO₂ sensor</td> <td>Thermal Conductivity</td> </tr> <tr> <td>Humidity (%)</td> <td>>95</td> </tr> <tr> <td>Water reservoir volume (L)</td> <td>6</td> </tr> </table>	Inner volume (L)	212	Dimensions (DxWxH)mm	763x910x795 approx	Inner dimensions (DxWxH)	588x600x600 approx	Shelves (DxW)mm	510x590 Approx	Number of shelves (standard/Max.)	3/10	Temperature control range(°C)	ambient + 5~50	Temperature control accuracy (°C)	\pm 0.1	Temperature sensor	PT1000	CO ₂ control range (%)	0~20	CO ₂ deviation (%)	\pm 0.1	CO ₂ sensor	Thermal Conductivity	Humidity (%)	>95	Water reservoir volume (L)	6		
Inner volume (L)	212																														
Dimensions (DxWxH)mm	763x910x795 approx																														
Inner dimensions (DxWxH)	588x600x600 approx																														
Shelves (DxW)mm	510x590 Approx																														
Number of shelves (standard/Max.)	3/10																														
Temperature control range(°C)	ambient + 5~50																														
Temperature control accuracy (°C)	\pm 0.1																														
Temperature sensor	PT1000																														
CO ₂ control range (%)	0~20																														
CO ₂ deviation (%)	\pm 0.1																														
CO ₂ sensor	Thermal Conductivity																														
Humidity (%)	>95																														
Water reservoir volume (L)	6																														

			<table border="1"> <tr> <td>Net weight (kg)</td> <td>95</td> </tr> <tr> <td>Rated power (W)</td> <td>700</td> </tr> <tr> <td>Rated voltage</td> <td>230V/50Hz 110V/60Hz(optional)</td> </tr> </table>	Net weight (kg)	95	Rated power (W)	700	Rated voltage	230V/50Hz 110V/60Hz(optional)		
Net weight (kg)	95										
Rated power (W)	700										
Rated voltage	230V/50Hz 110V/60Hz(optional)										
35	Digital water bath		<p>High accurate PID temperature controller with digital readout Temperature regulable from room temperature up to 99°C Uniformity: ± 0,05°C Accuracy: ± 0,02°C 3 preset temperature values (25°C, 37°C and 56°C) Displays set temperature and actual temperature Tank dimensions: 49 x 30 x 15 cm Capacity: 22 liters Roof lid for bath included Weight: 12,5 Kg Consume: 1 Kw Voltage: 220V-50Hz</p>								
36	Generator		<p>Silent Generator</p> <p>30 KVA, Deisel</p>								
37	Refregerated Centrifuge		<p>Maximum speed 20,000rpm Maximum RCF 20,630xg Maximum capacity 48mL Control system Invertor Microprocessor control, Speed, RCF, Time, Temperature, TEMP LIMIT, Pre-cooling, FLASHING, Acceleration & Deceleration, Memory (three channels) Alarm display Lid open, Imbalance, Over speed, Function for detecting an occurrence of electrical abnormality in speed sensor, inverter, lid interlock, motor, abnormally high temperature Acceleration/Deceleration Rapid, Slow, 4 ways of switching Speed setting From 300 to 20,000rpm, 100rpm increments Speed indication Digital display, from 0 to 20,300rpm, 100rpm increments RCF setting From 100 to 20,630xg, 100xg increments RCF indication Digital display, from 0 to 21,400xg, 100xg increments Timer Setting Range From 1 second to 99 seconds in 1 second increments From 1 minute to 99 minutes in 1 minute increments Hold Temperature setting and indication Digital display, 1°C increments setting and indication</p>								

		<p>1°C increments setting from -9°C to 40 °C. 1°C increments indication from -9°C to 43°C.</p> <p>Refrigerant R134a(CFC free) Setting the Sound that notify the end of the operation 5 kinds and Sound none Power requirements Single phase AC 110/115V±10%, 50/60Hz, 8A Single phase AC 220/230V±10%, 50/60Hz, 5A Rated voltage and Rated current 110V, 6.0A / 115V, 5.7A 220V, 3.0A / 230V, 2.9A Power consumption and heat output 550W 2.0MJ/h Dimensions (WxDxH) and Weight 370x640x300mm, 110/115V 42kg, 220/230V 45kg</p> <p>Fixed Angle Rotor 24 x 2mL</p> <ul style="list-style-type: none"> · Autoclavable (134°C)* · Rotor lid Maximum speed 20,000rpm Maximum RCF 20,630xg <p>Maximum capacity 48mL Control system Inverter Microprocessor control, Speed, RCF, Time, Temperature, TEMP LIMIT, Pre-cooling, FLASHING, Acceleration & Deceleration, Memory (three channels) Alarm display Lid open, Imbalance, Over speed, Function for detecting an occurrence of electrical abnormality in speed sensor, inverter, lid interlock, motor, abnormally high temperature Acceleration/Deceleration Rapid, Slow, 4 ways of switching Speed setting From 300 to 15,000rpm, 100rpm increments Speed indication Digital display, from 0 to 15,300rpm, 100rpm increments RCF setting From 100 to 20,630xg, 100xg increments (The centrifugal force differs by the rotation radius.) RCF indication Digital display, from 0 to 21,400xg, 100xg increments (The centrifugal force differs by the rotation radius.) Timer Setting Range From 1 second to 99 seconds in 1 second increments From 1 minute to 99 minutes in 1 minute increments Hold Temperature setting and indication Digital display, 1°C increments setting and indication 1°C increments setting from -9°C to 40 °C. 1°C increments indication from -9°C to 43°C.</p> <p>Refrigerant R134a(CFC free) Setting the Sound that notify the end of the operation 5 kinds and Sound none Power requirements Single phase AC 110/115V±10%, 50/60Hz, 8A Single phase AC 220/230V±10%, 50/60Hz, 5A Rated voltage and Rated current 110V, 6.0A / 115V, 5.7A 220V, 3.0A / 230V, 2.9A Power consumption and heat output 550W 2.0MJ/h Dimensions (WxDxH) and Weight 370x640x300mm, 110/115V 42kg, 220/230V 45kg</p> <p>Fixed Angle Rotor 24 x 2mL</p> <ul style="list-style-type: none"> · Autoclavable (134°C)* · Rotor lid is Optional 		
--	--	---	--	--

FINANCIAL BID

3.A) PRICE SCHEDULE FOR DOMESTIC GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA

1	2	3	4	5							6
Schedule	Brief Description of Items	Manufacturer	Quantity (Nos.)	Price per unit (Rs.)							Total Price (at Consignee Site) basis (Rs.)
				Ex-factory/ex warehouse/Ex-showroom /Off-the Shelf	Exise Duty (if any) [%age & value]	Sales Tax/VAT (if any) [%age & Value]	Packing and Forwarding charges	Inland Transportation Insurance for a period including # months beyond date of delivery, loading/unloading and incidental cost till consignee's site	Incidental Services (Including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site	Unit Price (at Consignee Site)basis	
				(a)	(b)	(c)	(d)	(e)	(f)	(g) =a+b+c+d+e+f	4x5(g)

Total Tender Price in Rupees: _____

In Words: _____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be Quoted separately.

Place : _____

Date: _____

Name _____

Business Address _____

Signature of the tenderer _____

Seal of the tenderer _____

FINANCIAL BID

3.B). PRICE SCHEDULE FOR ANNUAL COMPREHENSIVE MAINTANANCE CONTRACT AFTER WARRANTY PERIOD

1	2	3	4					5
Schedule No.	BRIEF DESCRIPTION OF INSTRUMENT	QUANTITY. (Nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit Year wise*.					Total Annual Maintenance Contract Cost for 5 Years (4a +4b+4c+4d+4e)
			1 st	2 nd	3 rd	4 th	5 th	
			a	b	c	d	e	

***After completion of warranty period**

NOTE:-

1. In case of discrepancy between unit price and total price, THE UNIT PRICE shall prevail.
2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/service / operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years on yearly basis for complete equipment and turnkey (if any).
3. The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusively of such taxes and no claim for the same will be entertained later.
4. Cost of CMC will be added for Ranking / Evaluation purpose.
5. The payment of CMC will be made as per clause GCC clause 21.1 (D)
6. The uptime warranty will be 98% on 24 (hrs) X 365 (days) basis or stated in Technical Specification of the TE document.
7. All software updates should be provided free of cost during CMC period.
8. The stipulations in technical Specification will supersede above provisions.
9. The supplier shall keep sufficient stock of Spares required during Annual Comprehensive Maintenance Contract period. In case the spare are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.
- 10.

Place : _____

Date: _____

Name _____

Business Address _____

Signature of the tenderer _____

Seal of the tenderer _____

CHECK LIST FOR TERMS AND CONDITIONS

The bidder should ensure that the following information/documents are enclosed along with the bidding documents (Technical Bid)

1. EMD (As per SL no. 5 of the terms and conditions)	Yes/No
2. Bid form and price schedule as given in sl. no. 1-3 of the terms and conditions.	Yes/No
3. Five years AMC/CMC charges as given in sl. no. 2 of the terms and conditions.	Yes/No
4. Rate certificate indicating that they have not supplied the said equipment to any individual, Govt. or private institution at the rate lower than the quoted price.	Yes/No
5. Manufacturer's Authorization Certificates (As per Annexure III) in case of bid is submitted by agents.	Yes/No
6. User's list along with the certificates about satisfactory performance report of the equipment and quality if after sale service duly authenticated from existing users of the quoted model of equipment. A list of the user quoted model, indicating the complete postal address of the users and date of supply of the equipment is also enclosed.	Yes/No
7. Authorization certificate of the principal/manufacturee that they will be solely responsible for the maintenance of the equipment during guarantee/warranty period (As per annexure III)	Yes/No
8. Authorization certificate of the principal that the spares and other miscellaneous items (as applicable) of the equipment quoted will be freely available for at least five years after expiry of the warranty /guarantee period.	Yes/No
9. Tenderer has to submit a signed undertaking on stamped paper of Rs. 100.00 (Rupees one hundred) along with the tenderer. (As per annexure)	Yes/No
10. Confirmation from the principal/manufacturee that they will be solely responsible during warranty/guarantee and AMC/CMC period even when the agent is changed during this period. (Annexure III)	Yes/No
11. For the equipments where Consumables/reusable etc. are required a list indicating cost and life of consumable be given.	Yes/No
12. A certificate from principal that spares and any other miscellaneous items (as applicable) of the equipment quoted will be freely available for at least five years after expiry of warranty/guarantee period (As per annexure III)	Yes/No
13. Copy of PAN Card/VAT Registration certificate.	Yes/No

NAME, SIGNATURE AND ADDRESS OF THE TENDERER WITH RUBBER STAMP.

Undertaking

Annexure-II

Date of opening:

Item No.:

Name of Firm:

To,

The Managing Director
Naga Hospital Authority Kohima
Kohima : Nagaland
797001

Sir,

1. I hereby certify that I have gone through the terms and conditions mentioned in the tender document including annexure and undertake to comply with them. The rates quoted by me/us are valid and binding on me/us for acceptance for the period of one year from the date of the opening of tender.
2. It is certified that rate quoted are the lowest quoted for any institution/Hospitals in India.
3. Earnest money deposited by me/us as per schedule of items in the form of bank Draft/FDR (Nationalized Bank) pledge in favor of Managing Director, Naga Hospital Authority Kohima, Nagaland is attached herewith and shall remain in the custody of the Managing Director, Naga Hospital Authority Kohima, Nagaland as per sl. no. 5 of the terms and conditions.
4. (A) I/We give the rights to the Managing Director, Naga Hospital Authority Kohima, Nagaland to forfeit the EMD/security Money deposited by me/us if any delay occur on my/agent's part or fail to supply the article at the appointed place in time and desired specification.
(B) I/We undertake that I/We will be in position to enter into annual maintenance contract/comprehensive maintenance contract (AMC/CMC), spare parts consumables for five years after completion of guarantee/warranty period. I/We also undertake to keep the equipment in running order throughout the year and in case the equipment go out of order, the fault will be attend within 72 hours of lodging the complaint failing which, a penalty of 0.5 percent of the total cost of AMC/CMC of the equipment per day for the period of the equipment remaining out of order will be levied me/us. During warranty and guaranty period in the event of equipment remaining out of order for a period of 72 hours of lodging the complaint without any acceptable reasons penalty of extent of 0.25 percent of the purchase value of the equipment shall be levied on me/us for each day of the equipment remaining nonfunctional beyond permissible limit.
5. There in no vigilance/CBI case or court case pending against the firm/supplier.
6. On inspection if any article found not as per specification of the supply order, it shall be replaced by me/us in time asked for, to prevent any inconvenience at me/our own expenses.
7. I/We hereby undertake to supply the items as per direction given in the supply order within the stipulated period.
8. In case of no fulfillment of the terms and conditions of the contract/supply order, The Managing Director, Naga Hospital Authority Kohima, Nagaland shall have right to take appropriate action and impose penalty as deem fit.
I/We undertake to provide guarantee/warranty as mentioned in the specifications from the date of satisfactory installation and inspection. I also undertake that I will maintain the equipment during the period and replace the detected parts free of cost if necessary.
I/We undertake that Managing Director, NHAK, has the right to accept or reject any of the tenders without assigning any reasons thereof.

NAME, SIG NATURE AND ADDRESS OF THE TENDERER WITH RUBBER STAMP.

Authorization Letter

To

The Managing Director
Naga Hospital Authority Kohima
Kohima : Nagaland

Dear Sir,

Authority letter against

Tender no.....due on..... items quoted
..... We,, who are established and reputed
manufacturers of having factory at And hereby authorize
M/s (Name and address of the agent) to bid, negotiate and conclude the contract
with your institution against above tender for the above goods manufacturer by us.

We hereby extend or full guarantee/ warranty as per clause no. 13 of the terms and conditions of the
tender for the goods offered to supply against the invitation of bid from the above firm. We also confirm
that spares and any other miscellaneous items (as applicable) of the equipment quoted, will be freely
available for at least five years after expiry of warranty / guarantee period.

Our other responsibilities include –

1. Information regarding the name of new agent, in case of change of agent
2. (Here specify in detail manufacturers
responsibilities) The service to be rendered by M/s are as under
 1.
 - 2.....

(Here specify the services to be rendered by the agents)

Yours faithfully,

(Signature & Name of manufacturer)
With address and seal

Note: This letter of authorization should be on the letter head of the manufacturer concerned and should be
signed by a person competent and having the Authorization to issue said certificate on behalf of the
manufacturing firm. The said certificate should also bear the signature of participating tendered as a
witness.