

**INDIRA GANDHI NATIONAL TRIBAL UNIVERSITY,  
Amarkantak, 484887, Madhya Pradesh, India**



**Open Tender Enquiry for the procurement various Scientific  
Instruments under Central Instrumentation Facility (CIF)**

**File No. IGNTU/CIF/2018/02**

**Date: 10/07/2018**

**Last date of Tender submission: August 05, 2018; 5.0 pm**

**Tender Fee: Rs. 5000 (Non-refundable)/tender**

**EMD: As specified Item-wise in the Annexure 1. Separate EMD must be deposited for each quoted item.**

Reputed firms/manufacturers/dealers/suppliers with minimum three years of experience of supplying Scientific Instruments to Govt. sector/PSUs/Educational Institutions/Private Institutions of repute are invited for the submission of tender(s) for various Scientific Instruments (as detailed in the Annexure 1) in Two-bid System (Technical and Financial Bids) on or before August 05, 2018 5.0 pm. Both technical and financial bids must be submitted in separate sealed envelopes. The cover of the envelope should specify the technical/financial bids with subject as "Quotation for CIF".

The tender documents in sealed envelope must be reached to **The Registrar (Attention to: Coordinator, CIF), Indira Gandhi National Tribal University, Amarkantak, 484887, Madhya Pradesh, India** on or before August 05, 2018 by Speed/Registered/Couriers Posts only. The Tender document submitted without tender fee and EMD, as specified, will be not be considered and hence rejected. Incomplete tender and tender received after the due date and time will not be accepted.

Format for the submission of the tender document is appended below, which may be downloaded from the university website ([www.igntu.ac.in](http://www.igntu.ac.in)/[www.igntu.nic.in](http://www.igntu.nic.in)). Non-Refundable tender fee (Rs. 5000) for each proposal and EMD for each item must be remitted through Demand Draft in favour of **Indira Gandhi National Tribal University, Amarkantak**. Bidders should submit separate demand draft against EMD for each item. Submission of EMD for more than one item by single demand draft will not be considered and bid will be rejected. The direct cash deposition into University account and other mode of payment will not be considered. The proof of transfer of fund or copy of DD i.e. Tender Fee as well EMD money must be attached along with the technical bid. The University will not be responsible for any matter related to the non-payment of the fee. The EMD of the unsuccessful bidders shall be returned as per after expiry of the final bid validity or the DD may be returned as the case might be.

  
Registrar



## General Terms & Conditions

1. The tender documents should be submitted in **Two-Bid System** i.e. Technical Bid & Financial Bid, separately. The technical bid will be opened on the designated date and the financial bid containing the rate of various item(s) will be opened on a suitable date, to be intimated later to technically qualified bidders.
2. That the delivery/supply will be made on F.O.R. basis to the Indira Gandhi National Tribal University, Amarkantak, (M.P.). Rates should be quoted inclusive of Packaging Forwarding, Postage and Transportation charges, Octroi, etc.
3. All instruments/items should be quoted with 05 years on site warranty. However, price/rate of instruments/item with free warranty and extended warranty (year-wise after free warranty period) should be quoted separately.
4. The tender documents will be opened on the designated date and time. The incomplete proposal and Late Bid will not be acceptable at any circumstances.
5. That the freight, insurance charges, if any will not be borne by the IGNTU. Similarly, shortage, pilferage, damage in transit will be the sole responsibility of the supplier.
6. The firm will supply the material as per supply order and defective supply of material will not be accepted in any circumstances. The defective supply will not be accepted and the same will have to be replaced by the supplier within 7 days without freight/transport or any other charges.
7. Taxes and other Govt. levies will be paid extra as applicable.
8. That the delivery of goods will be taken at the risk and cost of the supplier only.
9. Annual Turnover of the agencies /firm (s) must be Rs. 01.00 Crore per annum.
10. Copy of the balance sheet and profit and loss A/C of Last 03 years must be submitted by the bidder.
11. State whether the firm (s) have been currently banned/blacklisted by any Ministry/Deptt. of Central Govt. or any State Govt. Submit an Affidavit to this effect.
12. That the supply of material will have to be completed within 30 days from date of issue of work order. The liquidated charges @0.5% per week shall be imposed if supply made after expiry of delivery period subject to maximum 5% of the total value of goods/contract value.
13. No revision in rate (on higher side) will be accepted at any stage.
14. If the tender document is submitted without deposition of EMD and Tender Fee it will be rejected out rightly.
15. Tender Fee and EMD fee shall be deposited through DD only drawn of any nationalized bank. Other mode of payment and direct cash deposit into university account will not be accepted.
16. No payment will be made for unsatisfactory/damaged supply of material (s)/ uninstalled item(s).
17. The perishable store and the rejected material must be replaced free of cost by the supplier immediately.

19. In case of discrepancy between unit price & total price, the unit price shall prevail.
20. The payment will be made after successful supply of the ordered quantity and quality of the materials at our end in good condition subject to production of the Physical Verification Report of the User Department/ nominated committee. No advance payment will be made at any stage. The payment shall be released only after the successful installation of the item(s), if any, subject to the production of the satisfactory certificate by the User Department/nominated committee. No payment shall be made for the delivered item(s) which have not been installed.
21. The bidders shall submit the copy of the Valid PAN No./GSTIN No./TIN No. and Registration of firm along with the quotation.
22. The bill(s) must be prepared/raised in the name of the Registrar, IGNTU, Amarkantak, M.P.
23. In case of breach of any of the conditions above, the decision of the Competent Authority Indira Gandhi National Tribal University will be final and binding.
24. The IGNTU, Amarkantak reserves the right to cancel the tender without assigning any reason thereof & no further correspondence shall be entertained in this regard.
25. If any legal disputes arise in connection with the execution of the tender will be subject to the jurisdiction of the District Court Anuppur, M.P. only.
26. EMD of the successful bidder shall be returned after the receipt of Performance Certificate as per GFR 2017.
27. Evaluation criteria:
  - i. At first stage only technical bid will be opened.
  - ii. The cost of tender document and EMD is deposited by the bidder.
  - iii. Average annual turnover of the firm during last three years.
  - iv. Financial bid will be opened for only those bidders who qualify the technical bid evaluation. The evaluation by the University will be final.

  
Registrar



## **TENDER FORM-1 TECHNICAL BID**

(Separate sheet should be used for each item)

**Sub: Open Tender (Two-Bid) Enquiry for supply of scientific instruments for CIF**

### **Part-A**

1	Tender Ref. No./Notification No.	
2	Name & full address of the Firm & year of establishment	
3	Annual Turnover of the firm/company:  Last Three financial years. (enclosed documents in support of claim)	Rs. _____ Rs. _____ Rs. _____
4	Whether the firm is registered: under company Act 1985. If yes enclosed certified copies	
5	a. CA Certified copies of Income tax.  b. copy of the Balance sheet and Profit and Loss account of the last 03 years	
6	a) TIN No. b) PAN No. c) GSTIN No.	
7	Details of the Earnest Money Deposit (EMD) as per the specifications of the equipments. If not applicable please specify.	
8	Details of the cost of the tender documents worth Rs. 5000/-(Rupees Five Thousand only). If not applicable please specify	
9	State whether you have been currently banned/blacklisted by any Ministry/Deptt. of Central Govt. or any State Govt. If so give details. Submit an Affidavit.	

### **Undertaking**

1. That I/we have carefully studied all the terms & conditions and shall abide by it.
2. That I/We shall supply the items of requisite quality.
3. That I/We undertake that the information given in this tender are true and correct in all respect and I/We hold the responsibility for the same.

Date:

(Seal & Signature of the Bidder)

Place:

**Part-B**

**PARTICULARS FOR REFUND OF EMD TO SUCCESSFUL/UNSUCCESSFUL BIDDER**

<b>Sl. No</b>	<b>Particulars</b>	<b>Details to be Provided</b>
<b>1</b>	<b>Name of the bidder</b>	
<b>2</b>	<b>PAN No.</b>	
<b>3</b>	<b>TIN No.</b>	
<b>4</b>	<b>GSTIN No.</b>	
<b>5</b>	<b>Particulars of DD</b>	

**List of attachment**

<b>Sl.No</b>	<b>Details of the attached documents</b>

**Date**

**Seal & Signature of the bidder**

**Place**



**Part-C**  
**Format for EMD**

S.No.	Equipment/Item	EMD Amount	DD No.



**Sub: Open Tender (Two-Bid) Enquiry for supply of scientific instruments for CIF**

**List of Instruments with Technical Specifications, Quantity and EMD**

SN	Item Description (Quantity, EMD and Technical Specifications)	Compliance (Yes/No)	Remark
1	<p><b>FTIR: 01; EMD: Rs. 60000.00</b></p>		
	<p><b>Interferometer</b>            Michelson (or suitable) interferometer with dynamic aligned, sealed and desiccated optical System with protective BaF2 coated KBr windows  <b>Beam Splitter:</b> Completely sealed Ge coated KBr  <b>Wavelength Range:</b> 7800 – 350 cm<sup>-1</sup>            Spectral Resolution: Variable 0.5 cm<sup>-1</sup> to 15 cm<sup>-1</sup>            Source            High intensity, Long life source covering entire MIR range            SNR            30,000:1 (Peak to Peak), 1 minute  <b>Laser</b>            Temperature controlled solid-state Near-IR diode laser  <b>Wavenumber Accuracy:</b> 0.05 cm<sup>-1</sup> at 2000 cm<sup>-1</sup>  <b>Wavelength Precision:</b> Better than 0.01 cm<sup>-1</sup> at 2000 cm<sup>-1</sup>            Detector            Temperature-stabilised room temperature DTGS detector            Performance Verification            Inbuilt motorised NIST-traceable 1.5 MIL polystyrene film with 5 years certification. Automated performance verification as per ASTM E1421            Humidity and Vapor Protection            Tightly sealed and desiccated optical bench with Magnesium-alloy construction            PC Connectivity            USB  <b>Software</b>            The Software should have below features:  <ul style="list-style-type: none"> <li>- Atmospheric Vapour Compensation</li> <li>- Spectral Comparison</li> <li>- Multiple spectra Handling</li> <li>- Reporting - Customized templates, Notebook, Customizable toolbar and menu options</li> <li>- Spectral History</li> <li>- Automatic accessory detection and performance verification</li> </ul> </p>		



	<ul style="list-style-type: none"> <li>- Peak analysis tools: peak area, peak height</li> <li>- Live display of data collection, and spectral data preview</li> <li>- User logins and password protection</li> </ul> <p><b>Accessories:</b> 1. Single Bounce Monolithic Diamond ATR to meet MIR range (up to 400 cm-1) for Liquid, Solid, Powder &amp; film samples.</p> <p>2. Transmission module for transmission measurement should be included</p> <p>Supplied with branded Desktop/Laptop and Printer and UPS to support the instrument</p>		
<b>2</b>	<b>HPLC (Analytical): 01; EMD: 120000.00</b>		
	<p>Ultra Fast HPLC system for analysis of Amino Acid, Drugs, Natural compounds, Toxins and mainly for semi volatiles. The system should be upgradable easily in the future to LC-MS/MS High performance liquid chromatograph (HPLC)</p> <p><b>HPLC Pump :</b></p> <p>) The HPLC Pump should be of latest industry technology. The system should be able to accommodate less than 10um particle sized column for faster analysis, high resolution and better peak separation than the conventional HPLC system. The system should have low solvent consumption, higher peak capacity and faster run time for a chromatographic run. The system shall have a minimum of two fluidic paths by default in which two distinctly different dwell volumes exist that differ by a minimum of 200 µL.</p> <p><b>Quaternary Pump (2 or more solvents) with inbuilt degasser, with a flow rate of 0.1 -5 ml/min or better and pressure range of 6000 psi range or better for the entire flow rate range.</b></p> <p>) Flow rate accuracy of ±01% or better and Flow precision of &lt; 0.1% RSD or better and with built in vacuum degasser. Solvent rack and solvent bottles (at least two) also to be quoted</p> <p><b>Injector</b> Auto sampler Column with Compartment</p> <p><b>Inbuilt Column Oven</b></p> <p>) Column Temperature Range: 5 °C above ambient to 50° or closer</p> <p>) Temperature Accuracy :0.1°C; Wavelength Accuracy : 0.1°C</p> <p>) Digital Data Collection Rate (max.) 60 Hz or better.</p>		

**Column Oven**

Column Oven with temperature Range: 5° C above ambient to 80 ° C. - or higher. Column capacity: should hold 300mm column, total column capacity not less than 3 or more. Should have Column switching facility between different columns. Validation: hardware folder/protocol to be quoted.

**Chromatography Software**

Software: The software should be a strictly validated/original licensed copy software along with latest version computer/laser printer with original operating software should be quoted. All automated LC calculations facility should be available. Free up gradation of software during the period of 5 years. The system should be capable enough to programme at least 1-5 different Gradient curves or better .

**Column:**

C18, 5 um 4.6 x 250 mm Column- 2 Nos

C8, 5 um 4.6 x 250 mm Column-2 Nos

2.1mm×150mm Dimension,1.9um C18 UHPLC Column-1 No

2.1mm×150mm Dimension,1.9um Amino UHPLC Column-1 No

**Accessories**

Essential accessories/ startup kit with syringes, septum, ferrules, nuts, moisture, Spares and Consumables: Recommended spares and consumables for not less than two years for smooth operation of the system should be availed.

Ultra Pure N2 Generators with suitable air compressor for Uninterrupted, on demand supply of dry nitrogen from the atmosphere.

Stackable integration HPLC Systems with small portable design.

**Certification**

An ISO/CE with quality certificates required

Manufacture authorization letter must be submitted.

Installation & Training

Installation at site must require with operation training

**Note : The above specifications are only representative and. All reputed top brands will be considered for technical evaluation**

**Computer Configuration**

**Processor: Intel i5 2.06GHz or more**

RAM :2GB, Hard Disk Drive: 320 GB

Monitor: 18.5” Flat TFT. DVD R/W. Combo -01 No

Key Board: Standard, Mouse: Optical, USB 2.0 Ports: 4

	<p>Nos.  2KVA UPS (60Minutes Back up)  Windows 7 Professional Licensed Software  HP Colour LaserJet (A-4 Size )  OPTIONAL ATTACHMENTS  <b>PDA Detector</b>  Variable Wavelength UV- VIS Detector  Spares &amp; Consumables  To suit complete working of the system.</p>		
3	<p><b>Ultra Centrifuge: 01; EMD: Rs. 80000.00</b></p>		
	<p>Should be ideal for DNA, RNA and protein separation.</p> <p>Maximum speed of 50000 RPM and G force of 2,54,000</p> <p>Should have high torque AC induction motor</p> <p>Should have self-lock rotor coupling, triggered by centrifugal force while spinning</p> <p>Should be vacuum and sealing constructed to minimize air friction at super speed rotation</p> <p>Should have capability to identify rotor automatically by photo sensor</p> <p>Should have intuitive control panel with safety warning LEDs</p> <p>Should have robust and safe sliding lid.</p> <p>Should have direct and flexible spindle drive system to endure ultra-speed</p> <p>Should able to accelerate and decelerate 10 programs.</p> <ul style="list-style-type: none"> <li>➤ Temperature range should be -10<sup>0</sup> to 40<sup>0</sup>C</li> <li>➤ Time control should be &lt;100 hours and continuous</li> <li>➤ Should have the memory to store up to 100 programs for multi department and users.</li> <li>➤ Should have very low noise less than 65db at maximum speed.</li> <li>➤ Should be provided with Fixed Angle 12X13.5ml Rotor with Aluminum lid.</li> <li>➤ Should have dimensions 710X1000X1260mm approx</li> <li>➤ Power Required: 5.0KVA, 220V/60Hz</li> </ul> <p>System must be supplied with suitable voltage stabilizer/UPS.</p>		

4	<b>Photosynthetic Analyzer: 01; EMD: Rs. 90000.00</b>		
	<p>Portable Gas Exchange with Fluorescence System for Simultaneous Measurement of Photosynthesis and Chlorophyll Fluorescence on same leaf area.</p> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>) Highly accurate 4-channel infrared gas analyzer</li> <li>) H<sub>2</sub>O measurement : 0 to 75000 ppm</li> <li>) CO<sub>2</sub> measurement : 0 to 2000 ppm</li> <li>) LED light control (0 to 2000 <math>\mu\text{mol m}^{-2} \text{s}^{-1}</math> PAR)</li> <li>) Inbuilt Oxygen Sensor for recording actual Oxygen concentration during Photosynthesis/Fluorescence measurement.</li> <li>) Operated via an integrated PC with a <b>large graphical color-display</b> (well readable in direct sun-light).</li> <li>) Any <b>external battery can be attached (Range 12V – 24V)</b></li> </ul> <p><b>Accessories:-</b></p> <ol style="list-style-type: none"> <li>1. <b>Oxygen Sensor</b> to monitor actual oxygen concentration with 0.05% resolution or more .</li> <li>2. <b>Narrow Leaf Chamber/ Adapter for different size of leaf</b></li> </ol> <p><b>System should supply with following accessories :-</b></p> <ul style="list-style-type: none"> <li>) AC power supply, Rechargeable battery (2 or 4 for 6-8 hours backup) and battery charger.</li> <li>) External battery cable</li> <li>) Chlorophyll Fluorometer and Light Source</li> <li>) Oxygen Sensor</li> <li>) Accessories - Spare &amp; consumables (10 kg Sodlime, 10 Kg Silicagel, CO<sub>2</sub> Cartridge 10 No.)</li> </ul> <p>Transport Box, Tripod &amp; Out door set</p>		
5	<b>Lyophilizer: 01; EMD: Rs. 30000.00</b>		
	<ul style="list-style-type: none"> <li>) Should be Micro processed digital control and LED display with the facility of the performing all procedures on one touch auto control system from freezing to drying.</li> <li>) Safety maintains experiment by back fill, auto purging and alarm system.</li> <li>) Should be safely designed to prevent contamination of samples by inserting sterile air or nitrogen gas.</li> <li>) Chamber body with dimensions 250X280mm should made of stainless Steel 304 to resist corrosion and contamination and overall dimensions of 600X600X880mm</li> <li>) Capacity: 3 litres</li> </ul>		

	<ul style="list-style-type: none"> <li>) Refrigeration with 1/3Hp</li> <li>) Temperature Range: ambient to -50°C</li> <li>) Safety Device: Back fill and auto purge System</li> <li>) Defrosting: Heated Door Defrosting</li> <li>) Should be provided with Vacuum Pump</li> <li>) Can apply to both individual and bulk scale at the same time.</li> </ul>		
<b>6</b>	<b>Automated DNA Sequencer: 01; EMD: Rs. 250000.00</b>		
	<ul style="list-style-type: none"> <li>) The system should be a simple bench top instrument to support various applications, such as, Gene Expression Profiling, Genomic Sequencing (de Novo/re-sequencing) for bacteria, viruses, other organisms, Targeted Sequencing (variant validation) and more advance applications like Chip sequencing, miRNA, Transcriptome Sequencing, Whole Genome Sequencing and small RNA profiling and sequencing.</li> <li>) System must be suitable for analyzing Plants/Animals/Microbial systems.</li> <li>) Throughput: flexible/upto 15 GB per run.</li> <li>) System should be user friendly and scalable.</li> <li>) System should be capable of generating 60 million reads per run; Read length: 200bp or more</li> <li>) System should be upgradable in future for higher throughput needs.</li> <li>) It should also have an option of barcodes of sample multiplexing.</li> <li>) System should offer a range of fast and simple library solutions and kits with low sample input requirements (1-10 ng of FFPE sample compatible) for a range of research applications such as targeted gene panels, exome and RNA sequencing.</li> <li>) It should include all necessary reagents and instruments for complete workflow starting from raw genetic materials to final data analysis, which includes system for DNA quantification, size selection, other equipment's and reagents as workflow demands.</li> <li>) The system should have a complete end-to-end board solution with necessary software for processing signals, calling bases, variants and alignment of sequences.</li> <li>) Suitable data analysis system &amp; software and suitable UPS to be provided with the system.</li> </ul>		
<b>7</b>	<b>Automated Protein analyzer: 01; EMD: Rs. 300000.00</b>		
	<ul style="list-style-type: none"> <li>) Should be a fully automated complete solution for</li> </ul>		

	<p>protein detection and characterization which performs all the manual processes associated with a traditional Western blot.</p> <ul style="list-style-type: none"> <li>) Protein sizing, quantitation and immunodetection of proteins should be performed in a nano-immuno assay system that utilizes capillaries allowing for the separation, capture and covalent immobilization of proteins from a wide array of plant species and subsequent immunoassay detection in the same vessel.</li> <li>) Should be a Bench-top system to processes up to 25 samples within 3 hours</li> <li>) Should use capillaries with a volume capacity of 400 nL</li> <li>) Should perform protein capture using inner capillary chemistry coating that is light activated to cause covalent immobilization of all proteins to the inner capillary wall</li> <li>) Should allow for loading up to 25 individual samples in a microtiter plate with space for separation and stacking matrices, primary and secondary antibodies and peroxide and luminol chemiluminescent substrate which are required to carry out 25 individual immunoassays</li> <li>) Must have robotic automated system which prepares capillaries for sample uptake</li> <li>) Should perform automated size-based separation</li> <li>) Must wash capillaries, remove matrices and perform automated immunoassay steps incubating of primary and secondary antibodies and protein blocking steps</li> <li>) Must automatically introduce chemiluminescent reagents for immunoassay detection results</li> <li>) Should have Molecular weight size separation power supply able to produce 0-3,000 volts with Constant voltage output</li> <li>) Must include Automated detection of fluorescently labeled protein size standards</li> <li>) Molecular weight ladder should range from 2 to 440 kDa</li> <li>) Should have ability to distinctly resolve biotinylated protein standards</li> <li>) Must have chemiluminescent and fluorescent detector</li> <li>) Should include software to set-up assay protocols and analyze run data, specify the molecular weight per sample, specify chemiluminescence collection time, perform relative quantitation of identified peaks by total area or peak height</li> </ul>		
8	<b>Bio fermenter with autoclave and chiller: 01; EMD: Rs.</b>		

	<b>120000.00</b>		
	<ul style="list-style-type: none"> <li data-bbox="289 233 1042 310">) Easy to calibrate temperature, pH, DO, Foam sensor in use of main control Screen</li> <li data-bbox="289 317 1042 394">) Easy control of external device by Fermentation controller</li> <li data-bbox="289 401 1042 478">) Intelligent self diagnostic system to maintain fermentation process from start to the end</li> <li data-bbox="289 485 1042 562">) Operation method touch screen controller and easy way compact design takes up only a small space.</li> <li data-bbox="289 569 1042 688">) Eight way microprocessor controller system using parallel communication software data logging, remote control, including integrated control.</li> <li data-bbox="289 695 1042 772">) Single Jacket/ Double Jacket and can be used to select the drive motor</li> <li data-bbox="289 779 1042 940">) Agitation, temp, pH, DO, ORP, O2, Antifoam, MFC, Feed pump, Gas Mixer and additional parameters such as analog signals and can be controlled through a variety</li> <li data-bbox="289 947 1042 1066">) Feed function is linked to the Do Cascade and a culture of a variety of conditions that can be applied to the linked control program</li> <li data-bbox="289 1073 1042 1150">) 4 Gas signals available to end control signals directly 4 gas controller from main control system.</li> <li data-bbox="289 1157 1042 1276">) On PC or one multi board can monitor and manage all of data by network even each controller is scattered( 1ch-6ch)</li> <li data-bbox="289 1283 1042 1465">) Vessel type- Single and double 500 ml, 14 L total vol STS 316L Top plate vessel, Borosilicate, glass autoclavable , pH, DO, foam level , pressure probe, addition port, Exhaust port, Baffles 316L, condenser</li> <li data-bbox="289 1472 1042 1633">) Aeration- flow rate: Rota meters 0-5 LPM ; Mass flow controller/ Mass flow manual option; Standard Ring Sparger/ micro spargaer ; 0.2 disposable Hydrophobic filter.</li> <li data-bbox="289 1640 1042 1843">) Agitation – Drive Direct Top Drive Servo Motor 200 W-400 W, BLDC Motor/ Single mechanical seal. Range 10-1500 RPM; Impellers – Rushton standard with fermentation. pitched blade standard with cell culture marine blade or spin filter</li> <li data-bbox="289 1850 1042 1892">) Temperature- Thermostat system 0-150 degree</li> </ul>		

	<p>centigrade with +/- 0.1 degree centigrade accuracy, PT 100 , Probe heating and cooling PID control, built in heat , exchanger, automatic cooling water valve.</p> <p>) pH range / censer 0-14 pH +/- 0.01 Inpro 303D, Toledo Temp. Range 0-140degC, the max pressure 6bar</p> <p>) DO range of the Censor- 0-200% accuracy. Galvanic censer, oxygen censer, ORP range / censer; Measuring range- 100-1000 MB; Temperature range 0-140 degree centigrade, the maximum pressure 2.5 bar</p> <p>) Antifoam – range/censer conductivity 0-300k</p> <p>) Power source – 110-220v, 50-60 Hz , single phase 500 W</p> <p>) Should be supplied with Autoclave and Chiller</p>		
<b>9</b>	<b>FPLC: 01; EMD: Rs. 140000.00</b>		
	<p>Versatile liquid chromatography system for protein and peptide purification by FPLC where the configuration can be modified with automation kits and upgradable. Purification must be performed at microgram up to milligram scale.</p> <p>The characteristics shall be the following: The system shall be capable of handling different types of commonly used chromatography columns like at least GE Healthcare chromatography columns or equivalent and to perform at least the following techniques:</p> <ul style="list-style-type: none"> <li>✓ Gel filtration (size exclusion)</li> <li>✓ Ion exchange chromatography Affinity chromatography</li> <li>✓ Hydrophobic interaction</li> <li>✓ Chelating</li> <li>✓ Buffer exchange/desalting</li> <li>✓ Chromatofocusing</li> </ul> <p>) Multiple wavelength detection: between 190 and 700 nm, with at least 3 wavelengths simultaneously.</p> <p>) Wavelengths accuracy: ± 2 nm • Wavelengths reproducibility: 1 nm.</p> <p>) The system must be software monitored (see section d).</p> <p>) Flow rate limit shall go up to 10 ml/min.</p> <p>) Pressure limit shall be at least of 23.3 MPa.</p> <p>) pH monitoring: pH range 2-12 with at least 0.1 pH unit sensitivity</p> <p>) Conductivity monitoring (between 1 µS/cm and at least 500 mS/cm).</p>		



	<p> ) Gradient buffer preparation (software assisted).  ) Automated sample injection.  ) Solvent compatibility: All commonly used chromatographic solvents  ) Operating temperature: 4°C to 40°C.  ) Voltage: 100-120 / 220-240 V </p> <p><b>Fraction collector</b></p> <p>FPLC system shall be associated to a fraction collector:  The fraction collector must be programmable and easy to use in connection with the analysis software. • Fixed volume and time fractionation as well as automatic peak fractionation shall be possible. • The fraction collector shall be flexible and could be used with different tube racks that enable to collect different fraction scales down to microliter.</p> <p><b>Tool kit for tubing and connectors</b></p> <p>Tubing and connector tool kit shall include: • Injection loops: range from µl scale to ml scale. • Column connection tubes. • Connectors to connect columns, tubes and the FPLC system.</p> <p><b>Analysis software</b></p> <p>Analysis software capable of fast and efficient control of protein purification which shall be able to generate high-quality purification results. The software shall enable a real-time control of the FPLC system based on a dedicated controller interface with a computer based graphical user interface where methods and operation sequences could be fully programmed by the end user. Functions to be included:  • Real-time flow scheme. • Trend curve data. IRMM / Ref. 2010-059-ic – technical specifications – LC-system - p. 5 of 6 Yes No • Display of all monitor values. • Method Logbook for full documentation. • Method start protocol. • Note books for pre-run, run, and post-run notes. • Method handling with full flexibility. • Backup of the different methods.</p> <p><b>Workstation for handling</b></p> <p>A PC controller that enables easy communication with the workstation and peripheral devices via an external USB communicator. The controller must include the Windows XP operating system or equivalent, the FPLC application software, a QWERTY keyboard, a mouse, and a highresolution flat-panel monitor.</p>		
10	<b>Circular Dichroism Spectroscopy: 01; EMD: Rs. 110000.00</b>		
	System should be suitable for Analysis of Bio-Macromolecules, Studying the conformational/structural changes/modifications in protein and other biomolecules,		

	<p>Qualitative and Quantitative Analysis of Chiral Materials, Assignment of Electronic Absorption Bands</p> <p><b>Technical Specifications:</b></p> <ul style="list-style-type: none"> <li>) Light Source: 150 W Xe arc lamp</li> <li>) Wavelength Range: 165 - 1100 nm</li> <li>) Four Channel Simultaneous Data Acquisition</li> <li>) Circular Dichroism (CD)</li> <li>) UV-VIS Absorption</li> <li>) Optical Rotatory Dispersion (ORD)</li> <li>) Linear Dichroism (LD)</li> <li>) CD - absorption difference between left and right circularly polarized light for an electronic transition.</li> <li>) ORD - difference between the indices of refraction for left and right circularly polarized light.</li> </ul>		
<b>11</b>	<b>Flow Cytometer: 01; EMD: Rs. 120000.00</b>		
	<ul style="list-style-type: none"> <li>) The instrument should be a compact benchtop Flow Cytometer analyzer with single laser (upgradable)</li> <li>) A compact flow cytometer for ploidy analysis, high resolution DNA analysis for plants, animals and micro-organisms</li> <li>) The Instrument should use a light source compatible to be used with DAPI/PI.</li> <li>) The instrument should have Windows based software for real-time data acquisition, data analysis and data display.</li> <li>) The instrument should have the option of upgrading it to one more Laser light source.</li> <li>) The instrument should have flow cuvette and having laminar sample transport with sheath fluid for fluorescence light detection.</li> <li>) The Instrument should be supplied with in built/external PC with monitor.</li> <li>) The instrument should be supplied with the reagent of 200 Test for Ploidy analysis.</li> <li>) The instrument should have the feature of Automatic peak analysis</li> <li>) The instrument should be supplied with extra data analysis software FCS express.</li> </ul>	<b>1.</b>	<b>2.</b>
<b>12</b>	<b>Microbalance: 02; EMD: Rs. 20000.00</b>		
	<ul style="list-style-type: none"> <li>) Capacity: more than 200 gm, minimum 0.01/0.1 mg</li> <li>) Redability: 0.01/0.1 mg</li> <li>) Repeatability: 0.01/0.1 mg</li> <li>) Pan Size: 120 mm</li> <li>) Linearity: 0.01/0.1 mg</li> <li>) Display: Touch screen</li> </ul>		

	<ul style="list-style-type: none"> <li>) Calibraion: IsoCal fully automatic,Internal Calibration</li> <li>) Response time: 1.5 sec</li> <li>) Weighing cell mounted on heavy duty die cast plate made of special aluminium alloy</li> <li>) Built-in motorized calibration weight for the highest weighing accuracy at the touch of a key</li> <li>) USB interface for data transfer without software.</li> <li>) Removable Draft Shield</li> <li>) GLP/GMP-compliant logging of calibration adjustment and weighing data using an optional data printer or a PC</li> <li>) Built-in application programs like, Mixing, counting,Statistics, weighing in %, Net-total formulation; animal weighing; mass unit conversion by toggling between 2 units.</li> <li>) Supervisory lock: Menu lock for protection against unintentional changes.</li> </ul>		
<b>13</b>	<b>Microvolume Spectrophotometer: 01; EMD: Rs. 40000.00</b>		
	<p>Standalone built-in touchscreen instrument control Low volume UV-VIS Spectrophotometer with following specifications:</p> <ul style="list-style-type: none"> <li>) Wavelength Range: 190-850 nm or better with <math>\pm 1</math> nm accuracy</li> <li>) Spectral Bandwidth: &lt;1.8 nm (FWHM @Hg 254 nm)</li> <li>) Minimum Sample Size: 1 <math>\mu</math>L; Pathlength: 0.030 to 1.0 mm auto-ranging</li> <li>) Light Source: Xenon flash lamp</li> <li>) Detector Type: 2048-element CMOS linear image sensor</li> <li>) Detection Limit: 2 ng/<math>\mu</math>L dsDNA; 0.06 (0.03) mg/mL BSA (IgG)</li> <li>) Maximum Concentration: 27,500 ng/<math>\mu</math>L dsDNA, 820 (400) mg/mL BSA (IgG)</li> <li>) Photometric Range: 0–550 A; Photometric Accuracy: 3% at 0.97 A, 302 nm</li> <li>) Measurement and Data Processing Time: Less than 10 sec</li> </ul> <p>System Software should have following features:</p> <ul style="list-style-type: none"> <li>➤ Must have embedded sensor and digital image analysis capability to monitor for bubbles and broken sample columns</li> <li>➤ Must support Blank, Auto-Blank, Measure and Auto-Measure options</li> <li>➤ Must deliver A260, A280, and purity ratio information</li> </ul>	<b>3.</b>	<b>4.</b>

	<p>A260/A280 and A260/A230 information for nucleic acid measurements</p> <ul style="list-style-type: none"> <li>➤ Must deliver A260, A280, and purity ratio information</li> <li>➤ A260/A280 information for protein measurements</li> <li>➤ Must be able to report background corrected absorbance measurements at 260nm and 280nm</li> <li>➤ Must have technology that can identify contaminants in the sample and report corrected concentration</li> </ul>		
<b>14</b>	<b>Nucleic acid Extraction System: 01; EMD: Rs. 60000.00</b>		
	<p>Automated Nucleic Acid Extraction System (Technical specification for Automated System for Protein, Nucleic acid extraction and Cell separation.)</p> <ul style="list-style-type: none"> <li>) The principle should be a magnetic bead based, to purify nucleic acids, proteins, cells, bacteria in a convenient, rapid and reproducible manner from different starting materials like blood, serum, Plasma, swab, tissue, food material, plant material with high quality and yield.</li> <li>) The processing volume should be flexible for all type of sample volumes from 20 – 5000 microlitre.</li> <li>) Patented technology will be preferable.</li> <li>) The instrument should be able to run a maximum of 96 samples per run and a minimum of one sample per run.</li> <li>) The instrument should be an open system, able to accommodate any kit from any manufacturer.</li> <li>) The particle collection efficiency should be &gt;95%.</li> <li>) The instrument should have an option of stand-alone mode and PC controlled mode.</li> <li>) The system should have a memory for 100 internal protocols.</li> <li>) The software and computer should be supplied with the instrument and the software should not have licenses key for unlimited users' access.</li> <li>) The instrument should have an option heating block which should be capable of setting the temperature up to 115°C.</li> </ul>	<b>5.</b>	<b>6.</b>
<b>15</b>	<b>Clean Bench: 01; EMD: Rs. 25000.00</b>		
	<ul style="list-style-type: none"> <li>) Should have Convenient operation: alarm indication for all abnormal status, mal-operation is set to be chain safeguarded to prevent further harmfulness, even if there is no strict training for operators. This design was ranked in top of the world and awarded the national patent (No#ZL200520125227.5)</li> <li>) Should have easy operation: all running status shown on display screen, including fan, filter, UV lamp,</li> </ul>		

	<p>airflow etc.</p> <ul style="list-style-type: none"> <li>) Designed with ergonomic 10 degree tilt angle for comfortable position to operate</li> <li>) Detachable Structure, service fixture for water &amp; gas supply, electric outlet</li> <li>) Stainless steel three side walls with reasonable angle of 12mm transition to avoid the blind cleaning</li> <li>) Independent bracket and cabinet, multiple brackets are optional</li> <li>) Equipped with popular bracket in the world, operation safer and comfortable, easy cleaning without removal</li> <li>) Equipped with anti-splash socket and waterproof outlet</li> </ul> <p><b>Reliable Protection</b></p> <ul style="list-style-type: none"> <li>) Patented and advanced balancer technology suspension system for safer and reliable operation</li> <li>) 6mm thickness anti-ultraviolet glass window, providing safe and effective protection</li> <li>) Innovation of airflow partition technology, to eliminate the leakage from front window along with the two sides (Patent No#: ZL200520125549.X)</li> <li>) Design for preventing leakage in all process, which can make operators safer effectively</li> <li>) Strict air tightness test, pressurized 500Pa, and pressure keeps no less than 450Pa after 30min.</li> </ul> <p><b>Safety Alarm Design</b></p> <ul style="list-style-type: none"> <li>) Threshold alarm, if you open the door upward higher than safety- guard line, prevent the leakage of experimental microorganism</li> <li>) Airflow fluctuation alarm alarming if airflow fluctuate over 20%, ensure the reliability for gas curtain</li> <li>) Unlocked fan alarm, prevent the leakage of experimental microorganism</li> <li>) Filtering efficiency, cleanliness class, Downflow air velocity, inflow air velocity</li> </ul>		
16	<b>Cooling Table Top Centrifuge: 01; EMD: Rs. 20000.00</b>		

- Must have large LCD display with touch control for clarity and ease to use.
- Rotor recognition for safe selection of rotors.
- Should be able to accelerate and decelerate 10 programs.
- Should have the memory to store up to 108 programs for multi department and users.
- Should have timer for run 0-99minutes and can hold in 1second increments.
- Should have pulse short rate for fast pelleting.
- Maximum speed of 15000 Rpm, max rcf of 22000g adjustable from 1 Rpm Steps.
- Temperature Range should be -9deg to 40 deg with PID controlled to+/-1°C.
- Accuracy: to run in speed (Rpm) or Rcf (G) in 1 second increments
- Dimensions (HXWXD): 315X450X635mm approx to occupy less space.
- Should have very low noise less than 60db at maximum speed.
- Orientation acceleration rate to prevent initial sample side deposits.
- Should have extra thick steel bowl for easy cleaning and rust free.
- Chamber should be made of alloy and steel composites for extra strength with light weight and quiet functioning.
- Should have best quality European brushless motor for maintenance free drive.
- Should have multi point lid locking for lid safety and emergency lid release in case of power failure.
- Should have lid lock detection system to ensure proper shutting of lid.
- Should have feature of imbalance detection for easy eye volume loading.
- Rotors should be made up of polypropylene for best strength and chemical resistivity and must be autoclavable at 121deg C for 20 minutes for complete decontamination.
- Should be provided with over speed and overheating

	<p>sensors to avoid over speeding and safety of motors.</p> <ul style="list-style-type: none"> <li>➤ Should have barrier ring for extra metal protection of chamber.</li> <li>➤ Should be provided with fixed angle rotor accommodating 24X2ml tubes for high speed centrifugation with up to 15000Rpm and 22000g force.</li> <li>➤ Should comply to all relevant EU standards for quality and medical devices IEC 61010 and Ce conformity test marks emission, immunity to EN/IEC 61326-1 class B.</li> </ul>		
<b>17</b>	<b>Leaf Area Meter: 01; EMD: Rs. 10000.00</b>		
	<ul style="list-style-type: none"> <li>) Leaf area meter should be compact, accurate tabletop instrument to check area of leaf.</li> <li>) The operation should be easy, even a layman can Operate.</li> <li>) This instrument can also be used to check area of non-transparent flat surface material like cloth/paper/plastics/leather etc.</li> <li>) This instrument should based on photometric technology</li> <li>) Precision: +2%, Length: 1000mm, Width: 160mm, thickness: 8mm, Stored datum: 200Groups, Battery:6v, RS 232 C interface, Power Requirement: 230V, 50Hz., one CVT more than 100 VA capacity.</li> </ul>		
<b>18</b>	<b>Multimode Plate Reader: 01; EMD: Rs. 50000.00</b>		
	<ul style="list-style-type: none"> <li>) Should have high power Light Emitting Diode (LED) light sources that cover a wavelength range from 340nm – 650nm.</li> <li>) Must have Single photon counting photomultiplier tube (PMT) for fluorescence and luminescence detection and a silicon photodiode for absorbance detection.</li> <li>) Should include 6 position excitation filter slide and a 6 position emission filter slide that are configured with filters for Coumarin and Flourescein detection, as well as 405nm, 450nm, 492nm and 620nm absorbance filters.</li> <li>) Excitation Filter Slide must include Absorbance: 405 nm, 450 nm, 492 nm, 620 nm; Fluorescence: 360 nm, 485 nm</li> <li>) Emission Filter Slide must include Fluorescence: 465 nm, 535 nm</li> <li>) Must support fast switching of emission filters for FRET</li> </ul>	<b>7.</b>	<b>8.</b>

	<p>measurements.</p> <ul style="list-style-type: none"> <li>) Should have filter slide access door on the front of the instrument.</li> <li>) Must include extra wide microplate access door that extends across the front of the instrument, and enables the plate carrier to accept plates in various positions (rather than a fixed access point).</li> <li>) Plate carrier should accept microplates in either landscape or portrait configurations.</li> <li>) Should read 96 and 384 well SBS standard microplates.</li> <li>) Should have touchpad on the front of the instrument with buttons that enable filter slide ejection, plate carrier ejection and emergency stop functions.</li> <li>) Software must enable full instrument control including print settings, filter configuration, shaking, filter slide ejection, and plate carrier loading and ejection with features including: User creation, copying, editing and deleting of microplate types, detection methods and protocols.</li> <li>) Extensive library of pre-configured plate types, as well as a Labware Optimization Wizard for defining new or unique plate types.</li> <li>) Easy assay configuration and data analysis features, including plate layout configuration with well identifiers; data reduction; programming of variables, transformation formulas, standard curves, cut-off groups, and validation formulas; database for saving and viewing results; 2D and 3D graphics; result recalculation; and several automatic and manual data export and print options.</li> <li>) Programmable linear, orbital and squared microplate shaking methods must be part of configuration.</li> <li>) Should allow integration with liquid handlers.</li> <li>) Should have ability to be connected to and controlled by a PC through an RS-232 serial interface.</li> </ul>		
<b>19</b>	<b>Phase Contrast Microscope: 01; EMD: Rs. 35000.00</b>		
	<p>(Camera, Microscope and Adaptor should be from same manufacturer for seamless intergration)</p> <p>Specification for Advance research Trinocular Phase contrast microscope with Dedicated scientific Dedicated Scientific 8 megapixel Digital Camera with image analysis software.</p> <p>Stand: Ergonomically Design rugged stand for Long time comfortable uses.</p> <p>Observation Head: Wide field Trinocular tube, Viewing</p>		



<p>Angle 30 deg, 360 deg rotation, Interpupilliary Distance 48-75mm.</p> <p>Reversed inwards quintuple nosepiece with precision click Stop for easy rotation</p> <p>Optical System: CCIS Plan Achromatic Color Corrected Universal Infinity System</p> <p>CCIS Plan Achromatic Phase contrast Objective Antifungus treated</p> <p>CCIS EF-N Plan Achromatic Objectives EF-N PL 4x/0.10 W.D 6,3 mm</p> <p>CCIS EC-H Plan Achromat Phase objective 10X/0.25 WD=4.3mm</p> <p>CCIS EC-H Plan Achromat Phase objective 40X/0.65/S WD 0.4mm</p> <p>CCIS EC-H Plan Achromat Phase objective 100X/1.25/S-oil WD=0.13mm</p> <p>Eye piece: Wide field high eye point eyepiece N-WF10X/20mm with diopter adjustment on both eyepieces, with rubber eyecup (paired)</p> <p>Coarse and Fine Focus: Coaxial coarse and fine focusing adjustment Brass Gear Z-Axis Movement 25mm Stroke. Fine focus with 2mm minimum increment,, coarse focus with torque adjustment .</p> <p>Rectangular Mechanical Stage : Built in low position coaxial mechanical stage With X &amp; Y control, double Slide specimen holding clip, Easy to read vernier scale for precise and fast Stage size 175 x 140mm surface,76 x 50mm movement Repositioning of sample (Right Hand control)</p> <p>Illumination: Built- in Koehler illumination 3W LED Illumination with intensity Control,</p> <p>Immersion oil (5ml), Power cord, Allen hexagonal key, Vinyl dust cover</p> <p>C-Mount Adapter: 0.5X C-mount camera adapter for 1/2.5" chip sensors.</p> <p><b>Fluorescence attachment (Should be from same manufacturer):</b> 100W/120W Halogen attachment with fluorescence filter for U,V B and G application</p> <p>Dedicated scientific HD (High Definition) Digital Camera</p> <p>Sensor Type: CMOS</p> <p>Sensor Size: 1/2.8 Inch</p> <p>Capture format on SD Card: Still image (8.0MP) /Video HD 1980X1080</p> <p>Live Display Model (through USB) : 1980X 1080</p> <p>Live Display Model (through HDMI) :1920X1080 (HD) 60fps</p> <p>Pixel Size: 2.8µm x 2.8µm</p>		
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	<p>Scan : progressive  Data Transfer: HDMI (1080p) and USB2.0  Operating Temperature : From -10 to +60 Degree Celsius non condensing  Max Signal to noise ratio: 38.1dB  Dynamic range : 70.1 dB  Live Image resolution : 8 MP  Sensitivity : 1,4V/Lux-sec (550nm)  Slot: SD Card (max 32Gb)  Support Device : Twin and Direct show Driver  Supported OS: Microsoft Windows XP SP3/Vista/7/8/10 and MAC OSX  Minimum Computer Requirements: 2GHz dual core –Ram memory 2GB- Video memory min.512 MB.  Lens Mount :C –mount  Focusable lens : 12mm  Package includes: CS ring Adaptor ,Focusable lens,30mm ad 38mm,eyepiece adaptors, Remote control, HDMi Cable ,USB 2.0 Cable ,Calibration slide ,macro tube ,universal power supply  Image Analysis software  Instant Image Capturing, Real time full screen image, Programmed Interval Captures, Video Capture by Time Settings, Easy Measurement Calibration, Measurement in microns, inches, millimetres. Length Measurements, Ellipse, Rectangle, Irregular Shape Measurements, Perimeter, Radius, Circumference Measurements, Angle Measurements, Magnifier (zoom) function, On-line files sending / receiving, Sound recording, Image Adjustment Effects Automatic Cell Counting, Data Export, Report Generating and Print Out, Interactive File Format</p>		
20	<p><b>Inverted Microscope with Fluorescence: 01; EMD: Rs. 40000.00</b></p>		
	<p>(Camera, Microscope and Adaptor should be from same manufacturer for seamless intergration)  Specification for Advance research Trinocular Phase contrast microscope with Dedicated scientific Dedicated Scientific 8 megapixel Digital Camera with image analysis software.  Stand: Ergonomically Design rugged stand for Long time comfortable uses.  Observation Head: Wide field Trinocular tube, Viewing Angle 30 deg, 360 deg rotation, Interpupilliary Distance 48-75mm.  Reversed inwards quintuple nosepiece with precision click Stop for easy rotation</p>		

Optical System: CCIS Plan Achromatic Color Corrected Universal Infinity System  
 CCIS Plan Achromatic Phase contrast Objective Antifungus treated  
 CCIS EF-N Plan Achromatic Objectives EF-N PL 4x/0.10 W.D 6,3 mm  
 CCIS EC-H Plan Achromat Phase objective 10X/0.25 WD=4.3mm  
 CCIS EC-H Plan Achromat Phase objective 40X/0.65/S WD 0.4mm  
 Eye piece: Wide field high eye point eyepiece N-WF10X/20mm with diopter adjustment on both eyepieces, with rubber eyecup (paired)  
 Coarse and Fine Focus: Coaxial coarse and fine focusing adjustment Brass Gear Z-Axis Movement 25mm Stroke. Fine focus with 2mm minimum increment,, coarse focus with torque adjustment .  
 Mechanical stage with different holders for petridich, plates, etc.  
 Illumination: Built- in 3W LED Illumination with intensity Control,  
 Immersion oil (5ml), Power cord, Allen hexagonal key, Vinyl dust cover  
**Fluorescence attachment (Should be from same manufacturer) :** 100W/120W Halogen attachment with fluorescence filter for U,V B and G application  
 C-Mount Adopter: 0.5X C-mount camera adapter for 1/2.5" chip sensors.  
 Dedicated scientific HD (High Definition ) Digital Camera  
 Sensor Type : CMOS  
 Sensor Size : 1/2.8 Inch  
 Capture format on SD Card : Still image (8.0MP) /Video HD 1980X1080  
 Live Display Model (through USB) : 1980X 1080  
 Live Display Model (through HDMI) :1920X1080 (HD) 60fps  
 Pixel Size: 2.8µm x 2.8µm  
 Scan : progressive  
 Data Transfer: HDMI (1080p) and USB2.0  
 Operating Temperature : From -10 to +60 Degree Celsius non condensing  
 Max Signal to noise ratio: 38.1dB  
 Dynamic range : 70.1 dB  
 Live Image resolution : 8 MP  
 Sensitivity : 1,4V/Lux-sec (550nm)  
 Slot: SD Card (max 32Gb)

<p>Support Device : Twin and Direct show Driver  Supported OS: Microsoft Windows XP SP3/Vista/7/8/10 and MAC OSX  Minimum Computer Requirements: 2GHz dual core –Ram memory 2GB- Video memory min.512 MB.  Lens Mount :C –mount  Focusable lens : 12mm  Package includes: CS ring Adaptor ,Focusable lens,30mm ad 38mm,eyepiece adaptors, Remote control, HDMi Cable ,USB 2.0 Cable ,Calibration slide ,macro tube ,universal power supply  Image Analysis software  Instant Image Capturing, Real time full screen image, Programmed Interval Captures, Video Capture by Time Settings, Easy Measurement Calibration, Measurement in microns, inches, millimetres. Length Measurements, Ellipse, Rectangle, Irregular Shape Measurements, Perimeter, Radius, Circumference Measurements, Angle Measurements, Magnifier (zoom) function, On-line files sending / receiving, Sound recording, Image Adjustment Effects Automatic Cell Counting, Data Export, Report Generating and Print Out, Interactive File Format</p>		
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**Undertaking**

1. I/We have gone through the terms & conditions as stipulated in the tender enquiry document and confirm to accept and abide the same.
2. No other charges would be payable by the IGNTU, Amarkantak.
3. That I/We undertake that the information given in this tender are true and correct in all respect and I/We hold the responsibility for the same.

(Seal & Signature of the Bidder)

Date:

Place:



**TENDER FORM: Financial Bid**

**Sub: Open Tender (Two-Bid) Enquiry for supply of scientific instruments for CIF**

SN	Name of Instrument/Item Quoted	Manufacturer/Make	Quoted Rate (Rs.) Price of optional components must be quoted separately
1	FITR		
2	HPLC		
3	Ultra-Centrifuge		
4	Photosynthetic analyser		
5	Lyophilizer		
6	Automated DNA Sequencer		
7	Automated Protein Analyzer		
8	Biofermenter with autoclave and chiller		
9	FPLC		
10	Circular Dichroism Spectroscopy		
11	Flow Cytometer		
12	Microbalance		
13	Microvolume Spectrophotometer		
14	Nucleic acid Extraction System		
15	Clean Bench		
16	Cooling Table Top Centrifuge		
17	Leaf Area Meter		
18	Multimode Plate Reader		
19	Phase Contrast Microscope		
20	Inverted Microscope with Florescence		

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