



(A Central University Estd. By the Act of Parliament No.35 of 1989)

Headquarters: Lumami - 798627

No: NUL/RDC-20/DST-FIST/2016

Dated: 28th August 2018

#### NOTICE INVITING TENDER

Sealed tenders are hereby invited from reputed Original Equipment Manufacturers/Authorised Dealers/ Bidders for supply and installation of equipments under DST-FIST Programme for Department of Chemistry, Nagaland University, Lumami. Interested firms may download the tender documents and Terms and Conditions from the University website: nagalanduniversity.ac.in and submit their quotations along with tender fee of Rs.500/- (Non-refundable) in the form of DD/Challan in favour of Registrar, Nagaland University, Lumami, in sealed envelope superscript on the cover "Quotation for Supply of Equipments under DST-FIST Programme for Department of Chemistry, Nagaland University, Lumami" and addressed to the undersigned on or before 21st September 2018 upto 4:00PM. No tenders will be accepted beyond this date and time.

Sd/-(Dr. Abemo) Registrar

No: NUL/RDC-20/DST-FIST/2016 4343

Dated: 24<sup>th</sup> August 2018

Copy to:

1. PRO for kind information of the Vice-Chancellor, NU.

2. The Finance Officer, Nagaland University, Lumami.

3. The Head, Department of Chemistry, NU, Lumami, for information.

4. The System Administrator, NU, Lumami, with a request to upload the NIT in the University website.

5. The Editor, Nagaland Post, Dimapur, with a request to publish in the next issue (Size 8cm x 10cm). Bills in triplicate should be submitted for payment. It is a onetime publication.

6. The Editor, Arihant Advertising Agency, S.R.C.B. Road, Fancy Bazar, Guwahati-781001, with a request to publish in the Times of India, North East Edition (Size 8cm x 10cm). Bills in triplicate should be submitted for payment. It is a onetime publication.

7. Office copy.

Registrar 2.8-8-18



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Sign & Seal

#### **Supply of Equipments**

Name of the Firm:	
Address:	
Phone contact/s:	
Fmail ID:	



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## Equipments to be supplied with Specifications:

#### Compact Mass Spectrometer

Instrument Name	DESCRIPTION	
Compact Mass Spectrometer	<ol> <li>Single/triple quadruple analyzer with Liquid/solid Introduction interface. Includes automatic/manual flow injection valve. Also includes Mass Express system control software and Data Express data processing software. Requires suitable PC. m/r range 10 – 2000.</li> <li>Electrospray Ionization (ESI) source for expression Compact Mass Spectrophotometer. Combined ASAP and Atmospheric Pressure Chemical Ionization (APCI) ion source for expression Compact Mass Spectrometer, for S and LCMS models.</li> <li>Edwards RV12 rotary vane pump with oil missifilter and oil return (110 - 240 V a.c.) - included in price of CMS.</li> <li>VSU220 220 – 240 V AC setup (e.g. Europe).</li> <li>Isocratic pump, for direct injection, Plate Express and make up flow provision.</li> <li>Replacement API Heated Capillary. APCI Calibration/tune standard mix.</li> <li>Suitable UPS – 5KVA and Laptop – HP/DELL – i5.</li> </ol>	



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# Fluorescence Spectrophotometer (Spectrofluorophotometer)

Light source 150 W or higher Xenon lamp

Monochromator Blazed holographic grating ~1300 grooves/mm

Wavelength scale 200 to 900 nm and 0 order light

Scanning Wavelength range: 200 to 900 nm and 0 order light

Spectral bandwidth Excitation: 1-20 nm or better

Emission: 1-20 nm or better

Resolution  $\leq 1.0 \text{ nm (Emission)}$ 

Wavelength accuracy Within ±1.0 nm or better

Detector PMT (scan wavelength range 200- 900nm)

Sensitivity The signal to noise ratio of the Raman line of distilled

water is ≥350 and more (P-P) or ≥1000 (RMS)

Excitation 350 nm

Sample compartment Liquid sample holder, Solid and thin films sample

holder

Fluorescence quantum yield, Fluorescence quantum efficiency measurements for future upgrade provision.

Latest PC & LaserJet printer must be supplied along with the system.

Suitable Standard Software for instrument control with data processing features for all

Pelteir for temperature control as mandatory

Quartz Cuvette with open top with lid---- 5 nos.



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#### VISCOMETER

Measurement Method

Tuning Fork Vibration Method

Vibration Frequency

30Hz

Viscosity Measurement Range

0.3 - 10,000 mPa.s or more

Accuracy

1% of Reading or better

Operating Temperature

10 - 40°C

Minimum Sample Amount

≤ 10ml (preferred) or more

Temperature Measurement

0-100°C

Computer software

Suitable computer workstation and software for instrument control

and monitoring the viscosity measurements and data processing.

Optional Accessories

Temperature controlled chiller or thermostate for controlling

temperature



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### **Fume Hood**

Item	Specification	Material specification	Quantity
Fume Hood	<ul> <li>Size: 6 x 2 x 2</li> <li>Quality: Working Area: PVC Fume Duct. Acid /Alkali/Chemical resistant powder coated paint. Ductless Doubled walled with electrical accessories inside the wall chamber. Stainless Steel Sink (Wash Basin) with water inlet/outlet system sink fitted with swan type water tap. Gas/Air cock fitted with 15/5 amp socket with switches.</li> <li>Base Storage Cabinet: Below the work table with storage drawer &amp; door.</li> <li>Illumination: 1 x 40 w</li> <li>Front Door: Front door is made of 6mm clear Toughened glass and moves vertically up and down with concealed counter balanced weight by Hinges.</li> <li>Electrical Supply: To work on AC 230V, 50/60Hz.</li> </ul>	Stainless Steel 304	1



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#### **UV-Vis Spectrophotometer**

Item	Specification	Remarks	Quantity
UV-Vis Spectrophotometer	<ul> <li>Double Beam optics with:</li> <li>Wavelength Range: 190-1100 nm</li> <li>4line ,20 character Backlit Display</li> <li>Monochromator design: Czerny Turner</li> <li>Concave holographic grating with 1200 lines/mm</li> <li>Optical Bandwidth: 1.8 nm</li> <li>Stray Light: Nal, 220 nm: &lt; 0.05 %T</li> <li>Baseline stability/ Flatness: ±0.003 Abs/hr after 2 hour warm up</li> <li>Detector: Silicon Photo Diode</li> <li>Light Source: Deuterium Lamp (Dr) &amp; Tungsten (W) Halogen Lamp</li> </ul>	Warranty atleast 2 years	1
	Other Features  USB Port for PC connectivity port for optional external pc configuration  Direct (without PC) printout of results in tabular and graphical format on Epson printer  Maximum Power Consumption: 170 VA		



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#### Terms & Conditions:

- 1. VAT or any applicable Tax and other charges should be clearly indicated.
- Any additional benefits like warranty period/after sales service/discount should be mentioned.
- 3. The rates should be quoted FOR Nagaland University, Lumami.
- 4. EMD of 2% of the total quoted price in the form of DD/Challan should be deposited in favour of the Registrar, Nagaland University, Lumami.
- 5. A Self address envelope should be enclosed along with the EMD.
- 6. Defective items will be replaced at the cost of the supplier.
- 7. The University reserves the right to accept or reject the tenders without assigning any reasons thereof and no representation will be accepted.

#### TERM OF PAYMENT

100% Payment after the Receipt, Installation, Verification and Acceptance of the equipments. Offers not agreeing with these terms are liable of rejection.