



جامعة عليا

# Aliah University

(A UGC & AICTE approved autonomous Institution under the Department of Minority Affairs and Madrasah Education, Govt. of West Bengal)

IIA/27, New Town, Rajarhat, Kolkata – 700 160, West Bengal

Web: [www.aliah.ac.in](http://www.aliah.ac.in)

## **NOTICE INVITING TENDER**

Ref No: **023/AU/REG/NIT/18-19**

Date: 18/09/2018

**Sub: Sealed Tenders are invited from Reputed Organizations for supply and installation of instruments for subsidiary physics lab of Department of Physics, Aliah University, New Town Campus.**

Aliah University, Kolkata a Premier Educational Institute under the Minority Affairs and Madrasah Education Department, Government of West Bengal, invites **Sealed Tenders are invited from Reputed Organizations to supply and installation of instruments for subsidiary physics lab of Department of Physics, Aliah University, New Town Campus.** The tentative quantity of the required items along with technical configuration of each items are mentioned at Annexure separately.

Interested **Bidders** may submit their **Tender** complete in all respect To, The Registrar Aliah University IIA/27, New Town, Kolkata- 700160, West Bengal, India by **04/10/2018 at 03 P.M The NIT Reference Number and Purpose of BID must be written in top of Sealed Envelope.**

### **Scope of Work:**

In this regard NIT has been invited in two fold basis i.e. Technical Bid and Financial Bid.

Interested bidders are requested to provide their Quotes following the **Format in Annexure- II** in their official letter heads along with signed **Compliance Statement and Price Bid (Annexure- III)**. All bidders are requested to read the **Annexure I: General Terms & Conditions** before participation of the NIT.

The University retains the right to cancel any of the items at a later date after the contract is awarded. The University at its own discretion may cancel any or all the bids without assigning any reason thereof.

For any information in this regard please Email: [registrar@aliah.ac.in](mailto:registrar@aliah.ac.in) and **copy to [store&purchase@aliah.ac.in](mailto:store&purchase@aliah.ac.in)**

Sl.	Schedule	Date & Time
1	Tender Uploading Date	24/09/2018 at 02 P.M
2	Bid submission start date	25/09/2018 at 12 P.M
3	Bid Submission closing	04/10/2018 at 03 P.M
	Techno Commercial Bid opening date <b>O/o The Registrar, Aliah University, New Town Campus. (The Bid Opening date is tentative and could be open on availability of Concerned Committee Members)</b>	05/10/2018 at 01:30 P.M

Sd/-  
Registrar  
Aliah University

### **ANNEXURE I: GENERAL TERMS & CONDITIONS**

- Supply and installation of instruments for subsidiary physics lab of Physics Department, New Town Campus** must be completed within Eight Weeks of issuing work order.
- The Tenderer should bear all the transportation & insurance **risk** till the on door delivery point to **Physics Department, New Town Campus** Aliah University IIA/27, New Town, Kolkata- 700160 Selected bidder shall take all possible care for Govt. Property & of any damages due to negligence of his workers; the bidder/Agency shall be responsible for all such damages & repair the same at his own cost
- The rates** so quoted must be inclusive of GST, Central Excise, customs Duty if any, packing freight to destination, Insurances and levies and necessary installation and fixing at designated places at Aliah University and all charges i.e. cost of material and other incidental charges for supplying at destination level

and onsite warranty 1 (One) year and also delivery charges up to the point of delivery at proper destination level and as per instruction in the work/ supply order. No extra charges will be entertained. Prices can be quoted in Indian Currency only (₹). No extra payment will be made for carrying of materials involving head load/ trolley etc.

4. Supply of Items will be made in conformity with the specification & time as mentioned in the work order as decided by the authority. **No deviation in specification will be accepted and submission of the compliance statement is compulsory.** After delivery of the materials to the respective points by selected bidder (s), authority reserves the right to collect the samples of supply the materials at random basis and send those materials for testing to ensure the quality of products etc. If it is found that materials are not according to the specification, the authority has every right to cancel the total lot or otherwise forfeit the security money, blacklisting the respective Manufacturer / Supplier and terminate the contract.
5. If any part of the service in respect of the work assigned and undertaken by you not rendered/delivered in time, Aliah University shall be entitled to levy and recover liquidated damages/ penalty at 1% per week or part thereof the delay/ default, subject to 5% maximum, on the payment due to the agency/contractor for the particular stage. Any delay beyond scheduled dates may attract higher penalty to be decided by the Aliah University
6. **The bidder will be selected on overall rate only.**
7. **Bidder must participate in all items otherwise their bid will be rejected**
8. All disputes are subject to exclusive jurisdiction of competent Court and Forum in Kolkata, India only.
9. Any dispute arising out of this contract shall be referred to the Registrar, Aliah University, and if either of the parties hereto is dissatisfied with the decision, the dispute shall be referred to the decision of an Arbitrator, who should be acceptable to both the parties, to be appointed by the Vice-Chancellor of the University. The decision of such Arbitrator shall be final and binding on both the parties.
10. **Payment Condition:-**The prices shall be inclusive of all taxes & levies including GST and other statutory duties as applicable. Rate of taxes should be indicated separately in the Price Bid. Contract Price specified in Price Bid should be based on the taxes & duties and charges prevailing at the date one day prior to the last date of Bid submission. Statutory deduction, wherever applicable, shall be made from invoice as per government rules. Necessary certificate will be issued for such deductions. Bidder submitting a bid shall produce valid statutory documents / certificates with respect to GST, Income Tax, ROC, Prof. Tax, Trade Licence, etc. All such documents / certificates shall remain valid on the last date of tender submission. GST component of the invoice of the bidder may be kept on hold in case there is any mismatch / irregularity in GST return filling on the part of the bidder. 100% payment will be released after receiving of items in good order and condition and successful installation, demonstration and commissioning duly certified by the concern authority and immediately on receipt of payment from the Govt. Department (within 60 days from the submission of bills). **Successful vendor should arrange to submit a performance security deposit in form of Performance Bank Guarantee to the tune of 10% amount of the total purchase value at the time of submitting the bill. This performance security deposit should be issued from any Nationalized Bank and validity of the same will be till warranty period +60 days from the date of delivery / installation of the material.** The payment will be made by RTGS / FUND Transfer mode only. Advance payment not allowed. **Hence, following information must be clearly written in the Price Bid for RTGS / FUND TRANSFER:**
  - A. Name of the Firm with complete postal address
  - B. Name of the Bank with Branch where the Account exist
  - C. IFSC CODE
  - D. ACCOUNT No
  - E. PAN No
11. The Tenders are liable to be rejected if the fore going conditions are not complied with. The bid should be complete in all respects and duly signed wherever required. Incomplete and unsigned offer will not be accepted.
12. The products asked for should be of very high standard and preferably reputed brand and/or with **B.I.S/I.S.I** code. **Products specification must be complied..**
13. All bidders must submit all Technical Documents as per Annexure II otherwise their bid will be cancelled. If any time/ during verification it is found that their documents are false and/or fake their Performance Security Deposit will be forfeited and the organisation became blacklisted.
14. All Bidders are requested to visit the Site of work before bid submission.

**Annexure II : Technical Bid Application Format**  
**(Please attach all relevant documents)**

To, The  
Registrar  
Aliah University

IIA/27, New Town,  
Kolkata-700 160

Sub: **Application for supply and installation of instruments for subsidiary physics lab of Department of Physics, Aliah University, New Town Campus.**

Ref: - \_\_\_\_\_N.I.T. No .....dated .....

Sir,

1. ABOUT THE ORGANIZATION		
1.1	Name of the Organization	
1.2	Name of Authorized Person	
1.3	Registered Office Address with telephone no. & email address	
1.4	Authorized Service Station Name, address, contact person name, phone number, e-mail	
2. TECHNICAL DOCUMENTS		
2.1	Company Registration No./Trade License No./Partnership Deed No. (Photocopy Required to Be Submitted along with NIT)	
2.2	PAN Registration No (Please attach documentary evidence))	
2.3	GST Registration No (Please attach documentary evidence)	
2.4	The bidder/OEM self-declaration stating that he/she is not banned/debarred or black listed by any Central/State Govt. of India/PSU/Organizations/Institutes in India or abroad	

**ANNEXURE III COMPLIANCE STATEMENT AND PRICE BID:**

Sl No	Para of Tender Enquiry Specification of Items Offered	Q T Y.	U N I T	<b><u>Compliance to Quotation specification n whether yes or no</u></b>	<b>TOTAL RATE</b>		
					<b>Total Rate (No. of Quantity X Unit Rate)</b>	<b>GST (% &amp; Amount)</b>	<b>Total Amount</b>
<b>For Any Enquiry Regd Specification etc please contact Dept of Physics, New Town Campus</b>							
01	<b>Measurements of length (or diameter) using vernier scale, slide caliper, screw gauge and travelling microscope</b> <b>Accessories:</b> i) Vernier scale-(Stain less steel): 01 pc ii) Slide calipers-(Stain less steel): 01 pc iii) Screw gauge-(Stain less steel): 01 pc iv) Travelling Microscope: 01 pc Complete in all respect	05	Set				
02	<b>Determination of the radius of curvature of a spherical surface by using spherometer</b> <b>Accessories:</b> i) Convex lens-20cm focal length ii) Spherometer-brass-10 iii) Plane glass plate-10 Complete in all respect	10	Set				
03	<b>Determination of moment of inertia of (a) a cylinder and (b) a rectangular solid bar</b> <b>Accessories:</b> i) cylinder-height:10 cm(approx), radius: 5cm (approx). ii) Rectangular bar:length:10 cm(approx), breadth:2cm(approx)	05	Set				

	Complete in all respect						
04	<p><b>To determine the focal length of a concave lens by combination method and hence to determine the refractive index of the material of the lens by measuring the radii of curvature of both lenses</b></p> <p><b>Accessories:</b> i) Complete with Optical bench, Lamp house, lens holder, Lens Skin, Cross wire etc. Complete in all respect</p>	03	Set				
05	<p><b>Determination of the average resistance per unit length of the meter bridge wire by Carey-Foster's method and hence to determine an unknown resistance</b></p> <p><b>Accessories:</b> a) Carey Foster Bridge-with copper strips on left and right gaps: 01 pc b) Standard low resistance (Single unit <math>-1\Omega/2\Omega/3\Omega</math>): 03 pcs c) DC Power supply- 2volt (fixed): 01 pc d) Commutator: 01 pc e)Resistance Box (<math>1\Omega-5000\Omega</math>) (Fractional): 01 pc f)Table Galvanometer: 01 pc Complete in all respect</p>	02	Set				
06	<p><b>Determination of the horizontal component of the earth's magnetic field and the magnetic moment of a magnet by employing magnetometers</b></p> <p><b>Accessories:</b> (i) Deflection Magnetometer: 01 pc (ii) Vibration Magnetometer-bar magnet size must be fitted inside vibration magnetometer: 01 pc (iii) Bar magnet- size should be fitted with: 02 pcs (iv) Slide calipers (s.s): 01 pc (v) Digital Stop watch (Good quality): 01 pc Complete in all respect</p>	04	Set				
07	<p><b>Determination of Young's Modulus of elasticity of a material of a bar by the method of flexure (Brass body)</b></p> <p><b>Accessories:</b> (i). Slotted weight for Young Modulus Apparatus- <math>\frac{1}{2}</math> Kilo-(6nos each) (ii). Traveling microscope (3 motion) INCO vernier Microscope model T horizontal 18cm. &amp; vertical 15cm.with 3 motion vernier scale but both fitted with micrometer heads reading 0.001 cm. Complete in all respect</p>	02	Set				
08	<p><b>Determination of rigidity modulus of a material of a wire by static method</b></p> <p><b>Accessories:</b> (i) Modulus of Rigidity Apparatus-(Searle's apparatus) (ii) Slide calipers -(Stain less steel) (iii) Screw gauge-(Stain less steel) (iv) Slotted weight and load hanger - <math>\frac{1}{2}</math> Kilo-(6nos each) (v) metre scale( stainless steel)</p>	02	Set				

	Complete in all respect						
09	<b>Determination of rigidity modulus of a material of a wire by dynamic method</b> <b>Accessories:</b> (Complete Experimental set up-stand type)	02	Set				
10	<b>Determination of unknown frequency of a tuning fork by using a sonometer</b> <b>Accessories:</b> i) Sonometer- wooden: 01 pc ii) Tuning fork (good quality)-set of 8 in box: 01 pc iii) Hammer wooden: 01 pc iv) Slotted weight for sonometer Apparatus- ½ Kilo- (6nos each): 01 pc Complete in all respect	02	Set				
11	<b>Determination of the radius of curvature of the lower surface of a Plano-convex lens by using Newton’s ring apparatus.</b> <b>Accessories:</b> Compact, steady, easy to handle, all component, microscope also provided with XY-Z movement Complete in all respect	02	Set				
12	<b>To study the characteristics of curve of <i>p-n</i> junction diode and A.C and D.C resistance (Trainer kit)</b> <b>Accessories:</b> Two DC Regulated Power Supplies 0-3VDC/150mA & 0-30 VDC/150mA, two dual range round meters for voltage & current measurement, PN Junction Diodes mounted behind the panel, connections of Supplies, Meters & Diodes brought out at 4 mm Sockets. Complete in all respect	03	Set				
13	<b>Verification of truth tables of “OR”, “AND”, “NOT” gates using diode and transistor</b> <b>Accessories:</b> (i) Bread board-good quality-10 pcs (ii) P-n diode-4A-50 pcs (iii) Transistor-cl-100(npn)-50 pcs (iv) Regulated DC power supply-0-5 V/1A – 4 PCS Complete in all respect	04	Set				
14	<b>Determination of Planck’s constant using light emitting diode</b> <b>Accessories:</b> (Complete power supply, digital meters, led circuit arrangement)	03	Set				
15	<b>Drawing the characteristics for a Zener diode and to study it as a voltage regulator</b> <b>Accessories:</b> (Complete set with dual power supply, ammeter, voltmeter, resistance box (0-10,000kΩ) Complete in all respect	04	Set				
16	<b>Study of characteristics of transistor in CE mode (<i>p-n-p/n-p-n</i>) and determination of current gain and hybrid parameters</b> <b>Accessories:</b>	04	Set				

	(complete with one dual power supply (0-15 V), MILLIAMMETER (0-200mA), micro-ammeter (0-150 $\mu$ A), voltmeter (0-20 v), cl-100 transistor, bread board. Complete in all respect					
17	<b>To study the characteristics of a p-n diode and as half wave and full wave rectifier.</b> Accessories: AC Supply: Variable AC Source by Variac transformer with 18-CT-18 AC supply for load & Line regulation In-built digital meters: Digital DC voltmeter (20V/200V)-1nos Digital RMS AC voltmeter (20V/200V)-1nos(To measure ripple factor) Digital milliammeter (20mA/200mA),-1nos All Digital meter Accuracy- $\leq$ 1%, Dual range, 3½ Digit 7 segment (Green display) On-board Circuits: Half wave circuit involving one 1N4007 diode Full wave Circuit involving two 1N4007 diode Bridge Circuit involving one 1N4007 diode. Filter Circuit. Filter: C-filter-2nos, L-filter-1nos Load resistance : Variable load resistance. Set of 2mm Patch cords for interconnections Complete in all respect	02	Set			
18	<b>Investigations on a series resonant circuit; Trainer Kit Based</b> <b>Specification:</b> Signal Generator: .1Hz-100KHz signal Generator with Digital Frequency counter. Amplitude: 0-15V/P-P Wave: Sine, Square, Triangle wave. In-built digital meters: High impedance Digital True RMS AC Millivoltmeter, Range-20V/2V/200mV Digital milliammeter (20mA/200mA)-1nos All Digital meter Accuracy- $\leq$ 1%, Dual range, 3½ Digit 7 segment (Green display) LCR component: Decade L,C, R Bank (10nos each) Set of 2mm Patch cords for interconnections. Complete in all respect	05	Set			
19	<b>Study the temperature dependence of total radiation and hence verify the Stefan's law</b> <b>Specification:</b> DC source: 0-2A. constant current supply with highly fine variation Variable DC power supply with properly short circuit & overload protection In-built Digital meters: Digital voltmeter (Dual range-2V/20V)-1nos Digital Ammeter (200 $\mu$ A/200mA)-1nos All Digital meter Accuracy- $\leq$ 1%, Dual range, 3½ Digit 7 segment (Green display) On-board Circuits: Circuit fabrication for Filament Bulb setup circuit Complete in all respect	04	Set			

20	<b>Physical balance for Lab</b> Weighting capacity: 1 mg to 100 gm. (in 5:2:2:1 ratio) in weight box. Wooden furnish with brass metal and whole body of the apparatus covered with transparent glass Complete in all respect	05	Set					
<b>Overall Rate in Figure</b>								
<b>Overall Rate in Word</b>								

I/We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs..... (Amount in figures) (Rupees .....amount in words) within the period specified in the invitation for Tender. We confirm that the normal commercial warranty/guarantee of mentioned in this Tender shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the invitation letter. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery. Certify that all above information are correct to the best of my/our information, knowledge and belief.

Signature of the Bidder

Date \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

Seal

**Ref. No: 023 /AU/REG/NIT/18-19**

**Dated: 18/09/2018**

Copy to:

1. **Chairman, Departmental Purchase Committee**
2. **Notice Board at Aliah University**
3. **Website: [www.aliah.ac.in](http://www.aliah.ac.in)**
4. **One Bengali News paper**
5. **Guard File**

Sd/-  
**Registrar**