NOTICE INVITING TENDER

Ref No: 27/AU/REG/NIT/17-18 Date: 16/03/2018

Sub: Sealed Tenders are invited from the bonafide and resourceful Contractors/Service Providers/Agents/Wholesalers/Suppliers for Supply of Experimental Setup for Practical Physics Laboratory For the Department of Education, Aliah University, Park Circus Campus.

Aliah University, Kolkata a Premier Educational Institute under the Minority Affairs and Madrasah Education Department, Government of West Bengal, invites Sealed Tenders from the bonafide and resourceful Contractors/Service Providers/Agents/Wholesalers/Suppliers for Supply of Experimental Setup for Practical Physics Laboratory for the Department of Education, Aliah University, Park Circus 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 23/03/2018 up to 02 P.M The Techno-commercial Bid will tentatively open on 23/03/2018 up to 4.15 P.M

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- II).

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 contact phone 8584853812 Email: jhaakif@gmail.com, education.aliah@gmail.com and copy to registrar@aliah.ac.in; store&purchase@aliah.ac.in

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Schedule</th>
<th>Date &amp; Time</th>
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<tbody>
<tr>
<td>1</td>
<td>Date of uploading of NIT (Publishing Date) at Aliah University Website</td>
<td>16/03/2018 up to 03 P.M</td>
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<tr>
<td>3</td>
<td>Bid submission start date</td>
<td>16/03/2018 up to 03 P.M</td>
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<td>4</td>
<td>Bid Submission closing</td>
<td>23/03/2018 up to 02 P.M</td>
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<td>5</td>
<td>Techno Commercial Bid opening (Tentative) date O/o The Deputy Registrar, Aliah University, Park Circus Campus, 17, Gorachand Road, Beniapukur, Kolkata, West Bengal 700014</td>
<td>23/03/2018 up to 04.15 P.M</td>
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Sd/-
Registrar
Aliah University
ANNEXURE I: GENERAL TERMS & CONDITIONS

1. Supply of Physical Science Laboratory Equipment & Accessories For Department of Education, Aliah University, Park Circus Campus must be completed within 7 days of issuing work order at Department of Education, Park Circus Campus, 17, Gorachand Road, Beniapukur, Kolkata, West Bengal 700014 Phone 8584853812

2. The successful tenderer will be required to furnish a Performance Security Deposit of 10% of contract amount in the form of Fixed Deposit Receipt or Bank Guarantee from any scheduled Bank duly pledged in the name of the “Aliah University”. The security deposit can be forfeited by order of this University in the event of any breach or negligence or non-observance of any condition of contract or for unsatisfactory performance or non-observance of any condition of the contract. The Security Deposit can also be deducted from the bill & same will be refunded after satisfactorily completion of warranty period. Guaranty/Warranty period for the products must be for 1 year/As per OEM whichever is higher.

3. The tenderer should bear all the transportation & insurance risk till the on door delivery point. 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.

4. The rates so quoted must be inclusive of all Taxes, VAT, Central Excise, Service Tax, 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 Equipment and other incidental charges for supplying at destination level and onsite warranty 1 (One) year/ As per OEM whichever is higher 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.

5. All necessaries cables and adapters for functioning of the equipments to be supply along with the Work.

6. 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. 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.

7. 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.

8. The bidder will be selected on overall rate only and the rate should be valid upto 180 days from issuing of Work Order.

9. All disputes are subject to exclusive jurisdiction of competent Court and Forum in Kolkata, India only.

10. 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.

11. Payment terms: 90% payment will be released within (30) days only after successful installation and commissioning of the supplied items duly certified by the concern authority and rest 10% will be released after submission of Performance Security Deposit mentioned in the Point No. 2 Of Annexure -I. No advance payment or payment against Performa invoice will be made. Payment will be made after receipt, inspection, and installation/testing. 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:

12. Name of the Firm with complete postal address
13. Name of the Bank with Branch where the Account exist
14. IFSC CODE
15. ACCOUNT No
16. PAN No
17. 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.

18. The products asked for should be of very high standard and of reputed brand and preferably with B.I.S/I.S.I code.
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 of Physical Science Laboratory Equipment & Accessories for Department of Education, Aliah University, Park Circus Campus.

Ref: - N.I.T. No .......................................................... dated .........................

Sir,

1. ABOUT THE ORGANIZATION

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<thead>
<tr>
<th>SL.</th>
<th>Name of the Organization</th>
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1.1

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<tr>
<th>Name of Authorized Person</th>
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1.2

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<tr>
<th>Registered Office Address with telephone no. &amp; email address</th>
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1.3

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<tr>
<th>Authorized Service Station Name, address, contact person name, phone number, e-mail</th>
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1.4

2. TECHNICAL DOCUMENTS

<table>
<thead>
<tr>
<th>SL.</th>
<th>Company Registration No./Trade License No./Partnership Deed No. (Photocopy Required to Be Submitted along with NIT)</th>
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2.1

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<tr>
<th>PAN Registration No (If any) (Photocopy Required to Be Submitted along with NIT)</th>
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<tr>
<th>GST Registration No (If any) (Photocopy Required to Be Submitted along with NIT)</th>
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<tr>
<th>An undertaking should be given stating therein that the Firm has not been debarred or penalized for any reason and consequently thrown out of work by any Government Department.</th>
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2.6

COMPLIANCE STATEMENT AND PRICE BID:

<table>
<thead>
<tr>
<th>SL.</th>
<th>NAME OF EXPERIMENTAL SET-UP</th>
<th>Qty</th>
<th>Compliance to Tender specification whether YES/ NO</th>
<th>Basic Price (Unit Price X Qty)</th>
<th>GST</th>
<th>TOTAL Quote (RS.) (Cl E + Cl F)</th>
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A

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<tr>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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</table>

1 To find the weight of a given body using parallelogram law of vectors (Gravesend’s apparatus) 1 Set

2 To find the spring constant of a helical spring by method of oscillations using three different masses 1

3 To determine the surface tension of liquid by capillary rise method only capillary apparatus 1

4 To determine the coefficient of viscosity of a given viscous liquid by measuring the terminal velocity of a given spherical body 1

5 To study the relationship between the temperature of a hot body and time by 1
<table>
<thead>
<tr>
<th>No.</th>
<th>Experiment</th>
<th>Equipment</th>
</tr>
</thead>
</table>
| 6   | To find the speed of sound in air at room temperature using a resonant tube by two resonance positions (Resonant air column) | 1. Meter Bridge  
2. Jockey  
3. Resistance Box  
4. Nichrome Wire  
5. Screw Gauge & Meter Scale  
6. Connecting Wire  
7. Galvanometer |
| 7   | To find the relation between frequency and length of a given wire under constant tension using Sonometer | 1. Sonometer |
| 8   | To find resistance of a given wire using meter bridge and hence determine the specific resistance of its material consisting if | 1) Meter Bridge  
2) Jockey  
3) Resistance Box  
4) Nichrome Wire  
5) Screw Gauge & Meter Scale  
6) Connecting Wire  
7) Galvanometer |
| 9   | To determine resistance per cm of a given wire by plotting a graph of potential difference versus current consisting of | 1) Wire (Nichrome)  
2) Voltmeter  
3) Ammeter  
4) Meter Scale  
5) DC Power Source |
| 10  | To verify the laws of combination (series / parallel) of resistance using a meter bridge consisting of | 1) Meter Box  
2) Resistance Box  
3) Plug Commutator  
4) Single Resistance Box: 2 Ω  
5) Single Resistance Box: 5 Ω  
6) Single Resistance Box: 10 Ω  
7) Galvanometer |
| 11  | To compare the emf of two given primary cells using potentiometer consisting of | 1) Potentiometer with Jockey  
2) Primary Cells  
3) Milliammeter  
4) D.C. Power Source  
5) Resistance Box  
6) One Way & 2 Way Key  
7) Galvanometer |
| 12  | To determine the internal resistance of given primary cell using potentiometer consisting of | 1) Potentiometer  
2) D.C. Power Source  
3) Galvanometer  
4) Resistance Box  
5) Ammeter  
6) Fractional Resistance Box  
7) Primary Cell (Laclance Cell / Daniel Cell) |
| 13  | To determine resistance of a galvanometer by half-deflection method its figure of merits consisting of | 1) Weston Type Galvanometer  
2) Battery  
3) Resistance Box |
| 14  | To convert the given Galvanometer (of known resistance and figure of merit) into an ammeter and voltmeter of desired range and verify the same | 2. Galvanometer  
3. Resistance Box  
4. Ammeter  
5. Battery  
6. Potentiometer  
7. D.C. Power Source  
8. Galvanometer  
9. Resistance Box |
<table>
<thead>
<tr>
<th>Experiment</th>
<th>List of Equipment</th>
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</table>
| 1 | consisting of  
1) Galvanometer  
2) Rheostat  
3) Constantan Wire / Manganin Wire  
4) Screw Gauge  
5) Wire Cutter  
6) Battery Eliminator  
7) Resistance Box  
8) Milliammeter  
9) Voltmeter |
| 15 | To find the frequency of the A.C. mains with a sonometer consisting of  
1) Sonometer  
2) Soft Iron Wire  
3) Tunning Fork  
4) Hanger  
5) Slotted Weight  
6) Step Down Transformer  
7) Electromagnet  
8) Stand with Clamp  
9) Meter Scale |
| 16 | To find the value of v for different value of u in a case of a concave mirror and to find the local length consisting of  
1) Concave Mirror  
2) Knitting Needle  
3) Meter Scale |
| 17 | To determine the focal length of a convex mirror using a convex lens consisting of  
1) Optical Bench with pin  
2) Convex Lens  
3) Convex Mirror |
| 18 | To find length of a convex lens by plotting graphs between u and v or between 1/u and 1/v consisting of  
1) Optical Bench  
2) Convex Lens |
| 19 | To fond the focal length of a concave lens using a convex lens consisting of  
1) Optical Bench  
2) Concave Lens  
3) Convex Lens |
| 20 | To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation consisting of  
1) Prism  
2) Board Pin  
3) Hair Pin |
| 21 | To determine refractive index of a glass slab using a travelling microscope consisting of  
1) Glass Slab  
2) Travelling Microscope |
| 22 | To find the refractive index of a liquid by using (i) concave mirror, (ii) convex lens and plane mirror consisting of  
1) Concave Mirror  
2) Meter Scale  
3) Optical Pin  
4) Stand with Clamp  
5) Spherometer  
6) Plumb Line  
7) Convex Lens  
8) Meter Scale |
| 23 | To draw the I - V characteristic curve of a p - n junction in forward bias and reverse |
bias consisting of
1) Bread Board
2) Jn diode: OA – 70
   Jn diode: OA – 71
   Jn diode: OA – 72
   Jn diode: BY – 125
   Jn diode: BY – 127
3) D.C. Voltage Source
   4) Milliammeter
   5) Voltmeter
   6) Microammeter
   7) Rheostat

To draw the characteristic curve of a zener diode and to determine its reverse break down voltage consisting of
1) Zener Diode
   IN 758 A
   IN 962 B
2) D.C. Power Supply
3) Microammeter
4) Voltmeter
5) Rheostat
6) Bread Board
7) POT

To study the characteristic of a CE npn/pnp transistor and to find out the value of current gain & voltage gain consisting of
1) Bread Board
2) Transistor: SL – 100
   Transistor: SL – 100
   Transistor: CL – 100
   Transistor: BC – 147
   Transistor: BC – 148
   Transistor: AC – 187
   Transistor: 2SB – 77
   Transistor: 2N -2904
3) D.C. Power Supply
4) POT
5) Milliammeter
6) Microammeter
7) Voltmeter
8) Multimeter

Total Quoted Price In INR

I/We agree to supply the above goods/equipment/products 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 ________________________________
Copy to:

1. Deputy Registrar and Chairman, Departmental Purchase Committee
2. HoD, Department of Education
3. Notice Board at Aliah University
4. Website: www.aliah.ac.in
5. Guard File

Sd/-
Registrar