# Ph: 080 - 26933221

## BHS HIGHER EDUCATION SOCIETY VIJAYA COLLEGE

R V ROAD, BASAVANAGUDI, BANGALORE – 560 004 (ACCREDITED BY NAAC WITH 'B'GRADE & RECOGNIZED BY UGC AS CPE)

EMAIL ID : principal@vijayacollege.ac.in

TENDER NO.: VC/EQUIPMENT-LAB/2018-19/CPE/01

DATED: 29th October 2018

SUBJECT : Tender for supply and installation of Physics Laboratory Equipment in Vijaya College, R V Road, Basavanagudi, Bangalore – 560 004

#### **NOTICE INVITING TENDER**

The Principal, Vijaya College, R V Road, Basavanagudi invites sealed tenders from the eligible agencies / firms under two bid system consisting of Technical and Financial Bids for supply and installation of equipment for Physics laboratory as per the details given below.

Last Date for Submission of Tender: 19th November 2018, 11:00 am

Date and Time of opening the Technical Bid:

20th November 2018,12:30 pm

Date and Time of opening the Financial Bid:

20th November 2018, 2:30 pm

#### **Specification of Physics Laboratory equipment**

#### 1. MILLIKAN' OIL DROP APPARATUS: 2 Nos.

Required for determining terminal velocities of olive oil droplets with and without an applied electric field and the charges carried by the droplets from which the fundamental electronic charge is determined.

A parallel plate capacitor with 5mm space between them, An atomizer of 50 ml capacity to spray oil in to the space between the parallel plates through a 3mm hole at the center of the upper plate, hole covering by an ebonite cork, illumination of dust particles in capacitor by a light source.

Power supply : 6.3V/3A; 0-300V DC power supply with three position knobs to select +ve, zero and -ve voltages to control the movement of oil drops.

Microscope with a vertical graduated scale 0 - 100 over 3 mm length and magnification of 10x/50x to observe the movement of the charged droplets.

#### 2. LORENZ NUMBER Apparatus: 2 Nos.

Constant current source, copper tube, DC differential amplifier and a multimeter to read DC upto 200mV range.

A 3/8" OD copper tube of length 15 cm; heater of 2 W, 22 ohm resistor inside the tube near its center; maximum current should not exceed 260 mA; distance between the junctions of each thermocouple must be 4 cm;

#### 3. ATWOOD'S MACHINE: 2 Nos.

Atwood's machine with a heavy base on a 1.75 m long, 30 mm diameter aluminum fixed pipe; light weight aluminum pulley; scale graduated in cm; synchronized clock to reset and start/stop when the weight just crosses with appropriate optical LED sensors;

#### 4. MEASUREMENT OF VISCOSITY BY STOKES'S METHOD. (2 NOS.)

Viscosity apparatus with photogates, digital clock for time interval measurement, Aluminium spheres (standard diameters 1 mm, 2mm, 3mm, 4mm, 5mm, 6 mm), acrylic and marble. Digital Screw Gauge and digital scale (up to 200gm).

### 5. END WINDOW GM DETECTORS. GM 120 (2 NO) AND ALUMINIUM ABSORBERS AA 270. : (2 NOS.)

Halogen quenched end window detector suitable for  $\,\alpha$  ,  $\,\beta$  ,  $\,\Upsilon$  counting. Operating voltage range

450 to 600V .Tube length is 2.125 inches, diameter 0.59 inches. Aluminium absorbers of different thicknesses ( 0mm,.05mm,.1mm, .15mm, .2mm,.35mm,.30mm,.35mm,.40mm,.45mm)

#### 6. EXP-EYES.

A PHOENIX project by Inter University Accelerator Centre to use simulation experiments with Python Language

#### **Instructions to Tenderers**

- 1. The scope of this tender is to invite quotations for supply and installation of equipment detailed above.
- 2. The items supplied should remain in warranty for atleast a period of one year from the date of installation.
- 3. The company should be able to rectify or replace the items as and when required within the stipulated time.
- 4. Tenders must be submitted duly filled in and signed by authorized person in ink pen or ball pen. Tenders written in pencil or erased /over-written will not be considered.
- 5. The bidders shall not be at liberty to offer his/her terms and conditions with regard to the tendered work which means that the bidder cannot deviate from the terms and conditions given herein. Otherwise, the tenders are liable to be summarily rejected.
- 6. Tenderer shall keep their tender valid for acceptance for a period of 45 days from the date of opening. Tenders with shorter validity period will not be considered.
- 7. GST No. of the firm as applicable while submitting the tender, must be indicated. A tender lacking this will not be considered.
- 8. The rates are to be quoted on the company's letter head. Each page of the quotation/tender must be signed & stamped by the authorized Signatory. Unsigned quotations may not be considered.
- 9. Technical & Financial bids should be submitted separately in sealed cover and both these sealed covers should be put in a big cover which should also be sealed and super-sealed with caption 'Quotation for Physics Laboratory Equipment'.
- 10. It should be certified that the tenderer is not blacklisted.
- 11. Tender Documents not properly sealed will not be considered.
- 12. Principal, Vijaya College, R V Road, Basavanagudi, Bangalore -4, reserves the right to accept or reject any or all the bids in full or in part including the

lowest, without assigning any reason thereof or incurring any liability thereby.

13. The quotation should be addressed to Principal, Vijaya College, R V Road, Basvanagudi, Bangalore – 560 004

Principal, Vijaya College, R V Road, Basavanagudi, Bangalore – 560 004

#### ANNEXURE - I

#### INFORMATION ABOUT THE TENDERER

Sl. No.	PARTICULARS	TO BE FILLED BY THE TENDERER
1.	NAME OF THE COMPANY	
2.	YEAR OF ESTABLISHMENT	
3.	STATUS OF THE COMPANY (PARTNERSHIP, LIMITED, ETC.)	
4.	POSTAL ADDRESS	
5.	PHONE NUMBERS	
6.	EMAIL – ID	
7.	WEBSITE ADDRESS	
8.	ANY AUTHORIZED DEALERS. IF YES, GIVE DETAILS	
9.	NAME OF THE PROPRIETOR, MANAGING DIRECTOR, ETC.	
10.	NATURE OF THE FIRM (MANUFACTURER, DEALER, DISTRIBUTOR, AGENT, ETC.)	
11.	DETAILS OF PRODUCTS DEALT BY THE COMPANY (CATALOGUE MAY BE ENCLOSED)	
12.	TURNOVER FOR THE LAST THREE YEARS : YEAR WISE	
13.	LIST OF EXISTING CLIENTS (GOVT., PSU, MAJOR CLIENTS, ETC.)	
14.	WHETHER ENLISTED WITH CENTRAL PROCUREMENT OR E - PROCUREMENT PORTAL OF KARNATAKA?	
15.	HAS YOUR COMPANY BEEN BLACKLISTED? IF YES, GIVE DETAILS	

Sl. No.	PARTICULARS	TO BE FILLED BY THE TENDERER
16.	IF BLACKLISTED & REVOKED, GIVE DETAILS	
17.	PAN/TAN NO. (copy to be enclosed)	
18.	GST REGISTRATION NO.	
19.	COPY OF INCOME TAX RETURN FOR THE LAST TWO YEARS	

#### **Declaration**

I/We do hereby declare that the entries made in this quotation are true to the best of my/our knowledge and belief. I/We do also confirm that I/We have read and understood General conditions of Contract as contained in these tender documents and agree to abide by the same in all respect.

I/We undertake to communicate promptly all the subsequent changes in condition affecting the accuracy of the details given above. Further I/We undertake that in case the facts/information furnished, as above is/has been found false, the Principal, Vijaya College may at its absolute discretion reject/cancel any assignment, if any, awarded/agreed to be awarded to me/us and in such case I/We shall not be entitled to claim any damages/whatsoever in regard to that assignment.

	Signature of Proprietor/Director/ Managing Director/Constituted authority
Place :	Name :
Date :	Designation :

#### ANNEXURE - II

#### FINANCIAL BID

I.	NAME OF THE SUPPLIER :								
II.	ADDRESS:								
III.	PHONE NUMBER:								
IV.	AUTHORIZED CONTACT PERSON WITH CONTACT NO. :								
V.	Rates quoted are all inclusive and no separate claims will be made towards any cess, GST, delivery charges, installation charges, testing charges etc.								
VI.	Terms of payment for supply of computers will be claimed only after delivery and successful installation of the same as per supply order and no advance will be claimed by this firm.								
VII.	The applicant should submit their bids in sealed envelopes to the PRINCIPAL, VIJAYA COLLEGE								
VIII.	Total Quoted Price. (Both in words and figures) (All inclusive).								
Sl. No.	Description	Specification	Unit Price (in Rs.)	GST	Quantity	Total Price (in Rs.)			

#### **DECLARATION**

I hereby declare that the information furnished above is true and correct to the best of my /our knowledge.

Signature of Authorized Signatory with date.