

Ref: CUO/Admn./Instruments & Equipments/47

Date: 31.08.2020

## LIMITED TENDER

Sealed Quotations are invited for supply of Instruments and Equipments from manufacturers / authorized dealers for Mathematic Laboratory of Central University of Odisha. Sealed quotations may be submitted by 1500 Hrs of 21.09.2020 as per the prescribed terms and conditions. For further details, please log on to our website: www.cuo.ac.in

Sd/-REGISTRAR

# **TERMS & CONDITIONS:**

## I. ESSENTIAL QUALIFICATION:

The tenderers shall fulfill the following eligibility criteria, failing which their quotations will be summarily rejected:

- a. The tenderer must possess valid License, Registration etc. issued by the Competent Authority as applicable.
- b. If the tenderer is the authorized dealer / sole distributor of the items, the Certificate to this effect should be attached.
- c. The tenderer must have satisfactorily completed:
  - i. One Order of Rs.20.00 Lakh or more
  - Two Orders of Rs.15.00 lakh each or more issued by any Govt./ Autonomous/ PSU Organization (Central or State) for supply of same or similar item / services during the last 03 Financial Years (i.e. 2064-17, 2017-18 and 2018-19) and the Current Financial Year.

Note: (i) The supply in progress and supply which is not satisfactorily completed will not be considered; (ii) Supply executed in any private organization will not be considered.

- d. The total turnover of the tenderer shall not be less than Rs.10.00 lakhs during the last 03 Financial Years (2016-17, 2017-18 and 2018-19) and the Current Financial Year.
- e. The tenderer must deposit Earnest Money (EMD) @ 2% of the Tender Value for the item quoted along with their tender in the form of Demand Draft drawn in favour of Central University of Odisha payable at Koraput.
- f. The tenderer must deposit the cost of tender document of Rs.500.00 (Rupees Five hundred only) in the form of demand draft drawn in favour of Central University of Odisha payable at Koraput. The cost of the tender document is non-refundable.
- g. The tenderer must possess his own Bank Account, PAN and G.S.T No.

### II. DOCUMENTS TO BE ENCLOSED

# The tenderer shall submit copies of the following documents along with the tender, failing which their quotation will be summarily rejected:

- 1. Copy of registration / license issued by the Competent Authority.
- 2. Completion Certificate issued by the authority with reference to Sl.No.C above consisting of the following details:
  - i. Description of items supplied
  - ii. Purchase Order No. & Date
  - iii. Value of Purchase Order
  - iv. Date of commencement of supply
  - v. Date of completion of supply
  - vi. Quantity supplied
  - vii. Whether supply completed or not
- 3. Copy of income tax returns and / or annual accounts of the last 03 Financial Years.
- 4. Copies of Bank Account, PAN, GST Registration Certificate.
- 5. Demand Draft of Rs....../- (Rupees ...... only) drawn in favour of Central University of Odisha payable at Koraput towards value of EMD @2% of the Tender Value.
- 6. Demand Draft of Rs.500.00 (Rupees Five hundred only) towards cost of tender document drawn in favour of Central University of Odisha payable at Koraput which is not refundable.
- 7. Certificate of dealership / distributorship as applicable.

### **III. INSTRUCTIONS TO THE BIDDER:**

1. Two Part Bidding : The ternderer shall submit their bids by two part bidding: Technical Bid and Price Bid.

Technical Bid shall contain the technical specification of the items to be supplied and the Price Bid shall contain the price of the items to be supplied and taxes if any. The price shall be quoted in INR.

- 2. Bid Opening Date and Time : The tenderers may send their quotations by speed post or registered post or in person only, addressed to the Registrar, Central University of Odisha, Sunabeda, Koraput, Odisha 763 004 so as to reach the University on or before 21.09.2020 by 15.00Hrs. Super-scribed as "Tender for Supply of Instruments and Equipments" Ref. No. CUO/Admn./Instruments& Equipments/47 dt.31.08.2020". The bids will be opened at 15.30 hrs on the same day in the presence of representatives of the bidders if any.
- 3. The bids sent through normal post or courier or Fax or e-mail shall not be considered.
- 4. Central University of Odisha, Koraput reserves the rights to accept / reject any offer in full or in part without assigning any reason thereof.
- 5. The blank bid documents may be downloaded from the University Website <u>www.cuo.ac.in</u>
- 6. Bids must be valid for 120 days from the date of opening of tender.
- 7. Delivery Period: The items shall be supplied, installed and commissioned within 30 days from the date of issue of Purchase Order. Delayed supply will attract levy of penalty/liquidated damages.
- 8. Penalty: If the bidder fails to deliver the goods or perform the services by the specified date, penalty at the rate of 1% per week of the total Contract / Purchase Order value subject to the maximum of 10% will be deducted.
- 9. Payment: 100% payment will be released after satisfactory supply, installation and commissioning of the instruments and equipments.
- 10. Security Deposit (Performance Security Deposit): The successful tenderer shall deposit @5% of the total purchase / contract value as Security Deposit within 07 days from the date of issue of Purchase Order, in the form of Demand Draft issued by any Nationalised Bank, drawn in favour of Central University of Odisha payable at Koraput. The same shall remain with the University till two months after the completion of warranty period and will be returned without any interest.
- 11. Installation & Warranty: The tenderers / bidders shall extend comprehensive onsite warranty of at least 01 year from the date of successful installation of goods against any manufacturing defects. The goods supplied shall be free from all defects and shall be of the highest quality and material.

Any defect arises to the goods under warranty, shall be replaced free of cost by the tenderer. Further, the University shall have the right to recover the cost of inconvenience caused to the University for failure to provide uninterrupted service of the supplied goods during the warranty period.

- 12. Settlement of Disputes: In the event of any dispute or differences between the Central University of Odisha and the bidder, arising out of non-supply of material or goods, not found as per specifications or any other cause whatsoever relating to the supply or purchase order, before or after the supply has been executed, shall be referred to the Vice-Chancellor, Central University of Odisha, Koraput who may decide the matter himself or may appoint Arbitrator under the Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties. All disputes shall be subject to jurisdiction of courts at Odisha only.
- 13. Return of EMD: The EMD of the unsuccessful bidders / tenderers will be returned within 15 days after finalization of the tender and issue of Purchase Order to the successful tenderer. The EMD of the successful tenderer will be returned on submission of Security Deposit of the required value.
- 14. Condition of goods: The bidder / tenderer shall supply the goods in good condition without any defect whatsoever to the satisfaction of the university. Any deviation in the material and the specifications from the accepted terms is liable to be rejected and the suppliers need to replace the rejected goods free of cost in the specified form to the satisfaction of the University.
- 15. For further information / clarification with regard to specification of Instruments and Equipments, please contact Sh. Jyotiska Datta, Assistant Professor (Mathematics) on his e-mail: <u>jyotiska.datta@gmail.com</u> for supply to Mathematics Departments respectively. Only e-mail inquiries will be entertained.

Sd/-REGISTRAR

## **BIDDERS' PROFILE**

1.	Name of the Tenderer/ Bidder	:
2.	Full Address of the tenderer / bidder	:
3.	Contact details of tenderer / bidder	:
	a. Telephone No. b. Mobile No. c. Fax No. d. E-mail id	
4.	Details of Earnest Money Deposit a. Value of DD b. D.D. No. & Date c. Issuing Bank	:
5.	Details of cost of tender document	:
	a. Value of D.D. b. D.D. No. & date	

c. Issuing Bank

6. List of Documents enclosed

SI. No.	Details o	f docume	nt	docu	me	r photocopies of the nts enclosed √tick)
1.	License / Registration No.			Yes	/	No
2.	Dealership Distributorship Certificate No.			Yes	/	No
3.	Details of Purchase Orders, Completion Certificate (Name of the organization, value, work / supply completion date)			Yes	/	No
4.	Income Tax Return	2016-17	Rs.	Yes	/	No
		2017-18	Rs.	]		
		2018-19	Rs.			

	Audited Balance Sheet & Profit and Loss Account	2016-17	Rs.	Yes	/	No
	Annual turnover during last 03 Financial Years	2017-18	Rs.			
		2018-19	Rs.			
6.	Bank Account No.			Yes	/	No
	Bank Name & Branch					
7.	PAN No.			Yes	/	No
8.	GST Reg. No.			Yes	/	No

- 7. Validity period of the Bid / Quotation:
- 8. Additional information, if any proposed to be furnished by the tenderer:

Certified that all the terms and conditions of tender document are accepted.

Date :

Authorized Signatory

Place :

Full name :

Designation:

Seal:



CENTRAL UNIVERISTY OF ODISHA, KORAPUT

## **BILL OF QUANTITIES**

	The List Equipment for Physics Laboratory to	be proc	ured	
SI. No.	Apparatus	Qty	Rate	Amount
01	Fly Wheel With Revolution Counter* - Consists of cast iron wheel of about 20cms. dia. and steel spindle is supported on ball bearings in strong iron bracket. The base is provided with four holes so that the apparatus can also be fixed to wall	01		
02	Slotted Weight- 5x50 gm. Set of 5 including hanger	05		
03	<b>Poisellieu Appts*</b> Manometer type. With the help of this app. One can find the coefficient of viscosity of water by noting its flow through a capillary tube uniform bore. Complete with constant level tank	02		
04	<b>Travelling Microscope</b> *– Deluxe with graticule in place of cross wire. Horizontal & Vertical motions.	02		
05	Vernier Caliper* - stainless steel	10		
06	Screw Gauge* - 25 mm. stainless steel	10		
07	Stop watch. – Mechanical 1/10 sec	03		
08	<b>Thermometer</b> – 110 <sup>°</sup> C	03		
09	K. Constant of Spring Apparatus* The apparatus consists of a spiral spring about 25 mm. in dia. And 10cms long. The upper end of spring is suspended from the chuck nut and lower end is provided with a small pointer which moves over a meter s. The lower end is provided with hook for carrying weights. The set up is on a heavy metal base. Without weights	01		
10	<b>Bending of Beam Apparatus*</b> - comprising of a metal C.P. bar one meter long resting on knife edges of two heavy table G- clamps, hanger with knife edge moves on metal bar, a spherometer fitted on cast iron stand with electric contacts is also provided.	01		
11	<b>E.M.F. of Thermocouple with difference of temperature of</b> <b>its two Junctions* -</b> Complete with Digital millivoltmeter, built in oven along with copper iron thermocouple and thermometer	01		
12	Specific heat of graphite* – Complete Setup	01		
13	Velocity of sound by Ruben's flame method* - Complete Setup	01		
14	Velocity of Sound By Phase Shift Method* - Complete Setup	01		
15	Measuring Tape	03		
16	Laurent's Half Shade* – Equipped with imported polarizing unit, analyser with precisely graduated scale. Vernier reading to 1/10 deg. Supplied with 100mm. and 200mm. Polarimeter tubes. Complete in box light with adjustable stand. Without sodium vapour lamp assembly.	01		
17	Sodium Vapour Lamp	03		

18	Transformer	02		
19	Slit Box	02		
19	Goniometer* - To Determine Cardinal Points And Focal	02		
20	Length - Complete set up	01		
21	<b>To Determine Temp of Sodium Flame*</b> - Complete set up	01		
	Young Modulus Apparatus <sup>*</sup> –			
	Consists of two duco painted frames connected by a link. The			
22	frames are fitted with self centering chucks provide with a spirit	01		
	level, a spherometer, ceiling bracket and a tension weight (All			
	Brass Parts)			
23	Slotted Weights - 5x500g. with hanger	05		
24	Steel Wire*	02		
25	Bar Pendulum* – With wall bracket. 100x2.5cms bored at every :	01		
25	removable knife edges (Brass/Stainless Steel)	01		
26	Reading Telescope – Deluxe Qty.	02		
	Kater's Pendulum* –			
	Consists of one meter long rod, carrying two sets of movable	~ ~		
27	knife edges, weights are provided to compensate the air	01		
	displacement, two sets of movable knife edges and weights.			
	(All Brass with Brass Weight) Multimeter For Measuring*			
	Set up consists of			
	a) Multimeter - Digital	<u>.</u>		
28	b) Resistances – different value	02 set		
	c) Capacitors			
	d) Fuses			
	Ballistic Galvanometer*			
	1.Measurement of charge and current sensitivity			
	2.CDR			
	<ul><li>3.To determination of high resistance by leakagemethod</li><li>4.To determine self inductance of a coil by Rayleigh method</li></ul>			
	Measurement of charge and current			
	a) Ballistic Galvanometer OSAW Pattern – 01 Nos			
	b) Lamp & Scale Arrangement: workable on 220V AC -			
	01 Nos			
	c) Battery Eliminator - 01 Nos			
29	d) Resistance box -1-5000 – Manganin - 01 Nos	01 Set		
	e) Commutator - 01 Nos			
	f) Connecting wires - 01 Nos To determine self inductance of a coil by Rayleigh method			
	a) Ballistic Galvanometer, - 01 Nos			
	b) Fixed power supply 2VDC, - 01 Nos			
	c) Unknown Inductance - 01 Nos			
	To determine high resistance by leakage Method			
	a) Ballistic Galvanometer- 01 Nos			
	b) Lamp & Scale Arrangement			
	Complete set up - 01 Nos			
	To determine CDR – Complete set up - 01 Nos			
20	To compare capacitances using DeSautys bridge	01		
30	<b>Desauty's Bridge*</b> – Complete with Bridge Oscillator and Null detector.	01		
	Measurement Of Field Strength Back And It's Variation In A			
31	Solenoid Db/Dx*	01		
	Set up consists of:			
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To Verify The Superposition And Maximum Power Transfer Theorem Verification of Superposition Theorem - Features: Instrument* comprises of two fixed output DC regulated power supply of 12V& 5V at 250mA current, Three moving coil meters, circuit diagram printed on the front panel Verification Of Maximum Power Transfer Theorem- Features Instrument comprises of one fixed output DC regulated power supply of 12V at 250mA current, Two moving coil meters, circuit printed on the front panel. Audibility of Human Ear* - Complete Setup	01		
Transfer Theorem Verification of Superposition Theorem - Features: Instrument* comprises of two fixed output DC regulated power supply of 12V& 5V at 250mA current, Three moving coil meters, circuit diagram printed on the front panel Verification Of Maximum Power Transfer Theorem- Features Instrument comprises of one fixed output DC regulated power supply of 12V at 250mA current, Two moving coil meters,	01		
Transfer Theorem Verification of Superposition Theorem - Features: Instrument* comprises of two fixed output DC regulated power supply of 12V& 5V at 250mA current, Three moving coil meters, circuit diagram printed on the front panel Verification Of Maximum Power Transfer Theorem- Features	01		
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Transfer Theorem Verification of Superposition Theorem - Features: Instrument* comprises of two fixed output DC regulated power			
Transfer Theorem Verification of Superposition Theorem -			
Transfer Theorem			
-			
Setup	01		
	01		
(Compact) – Complete with all accessories	01		
	0.1		
	01		
To study the series LCR circuit and determine 1.resonant			
measure voltage and current, circuit diagram is printed			
selector switch to select different voltages. Two meters to			
1	01		
g) Connection Wire – D.C.C.			
f)Reversing Key			
/			
different number of turns and capable of carrying heavy current.			
	Mounted in metallic frame b) Rheostat c) Ammeter, d) Battery eliminator, e) Plug key One way f)Reversing Key g) Connection Wire – D.C.C. <b>Charging &amp; Discharging of Condenser*:</b> To study RC time constant using sets of resistance & capacitors Instrument comprises of variable DC power supply with selector switch to select different voltages. Two meters to measure voltage and current, circuit diagram is printed To study the series LCR circuit and determine 1.resonant frequency 2.quality factor Q <b>LCR Series And Parallel Resonance Apparatus -</b> <b>With Built-In Sine Wave Oscillator</b> <b>To determine a low resistance by Carey fosters bridge</b> ( <b>Compact)</b> – Complete with all accessories To Verify The Thevenin And Norton's Theorem <b>Verification of Norton's &amp; Thevenin's Theorems</b> – Complete	different number of turns and capable of carrying heavy current.Mounted in metallic frameb) Rheostatc) Ammeter,d) Battery eliminator,e) Plug key One wayf)Reversing Keyg) Connection Wire – D.C.C. <b>Charging &amp; Discharging of Condenser*:</b> To study RC time constant using sets of resistance &capacitorsInstrument comprises of variable DC power supply withselector switch to select different voltages. Two meters tomeasure voltage and current, circuit diagram is printedTo study the series LCR circuit and determine 1.resonantfrequency 2.quality factor QLCR Series And Parallel Resonance Apparatus -With Built-In Sine Wave OscillatorTo determine a low resistance by Carey fosters bridge(Compact) – Complete with all accessoriesTo Verify The Thevenin And Norton's TheoremVerification of Norton's & Thevenin's Theorems – Complete01	different number of turns and capable of carrying heavy current.   Mounted in metallic frame   b) Rheostat   c) Ammeter,   d) Battery eliminator,   e) Plug key One way   f)Reversing Key   g) Connection Wire – D.C.C.   Charging & Discharging of Condenser*:   To study RC time constant using sets of resistance &   capacitors   Instrument comprises of variable DC power supply with   selector switch to select different voltages. Two meters to   measure voltage and current, circuit diagram is printed   To study the series LCR circuit and determine 1.resonant   frequency 2.quality factor Q   LCR Series And Parallel Resonance Apparatus -   With Built-In Sine Wave Oscillator   To determine a low resistance by Carey fosters bridge   (Compact) – Complete with all accessories   To Verify The Thevenin And Norton's Theorem   Verification of Norton's & Theorems – Complete   01

\*Materials: Stainless Steel /Copper/Brass