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CENTRAL UNIVERSITY OF KARNATAKA

(Established by an Act of the Parliament in 2009)

kadganchi village Aland Road, Kalaburgi Dist-585367 Karnataka

F.No.2523/PUR/CUK/2015-16/21

Date: - 03.07.15

LIMITED TENDER ENQUIRY

The sealed Quotations under two Bid systems (Technical & Financial) are invited for supply and installation of **“ Water Analysis Lab”** as per Annexure- I. The interested firms may send their Tenders/proposals on the prescribed application along with the **Technical Bid (Annexure-II) & Financial Bid (Annexure-III)** to the **CENTRAL UNIVERSITY OF KARNATAKA, Gulbarga** up to **23.07.2015 by 14.00 hrs.** Tenders must be submitted in sealed cover and the envelope containing the same is to be marked as “Tender for Supply of **“Water Analysis Lab”** and addressed to, **The Co-ordinator (Procurement), Central University of Karnataka, Kadganchi, Administration building ground floor, Kadganchi village Aland road, Kalaburgi-585367** and not by name. The tender will be opened in the office of the undersigned at **15.00 hrs.** on **23.07.15** in the presence of all bidder.

(This Tender is Re-floated vide notification F.no. 2523/PUR/CUK/15-16/ dt 07.05.2015).

The documents should be enclosed in separate envelopes of appropriate size each of which should be sealed.

- ENVELOPE NO. 1:** Should contain (i) covering letter (ii) Technical Bid (Annexure – II duly signed and stamped and (iii) Requisite Fee (Processing fee and Earnest Money (**Ref. SI. 3&4**)).
- ENVELOPE NO. 2:** Should contain the Financial Bid duly signed, stamped and super-scribed as “Financial Bid Annexure – III”.
- ENVELOPE NO. 3:** Should contain Envelope 1 and 2.

Only such bids which are technically qualified will be opened for financial bidding.

The tenders shall be submitted according to the terms and conditions specified in **Annexure A**. Unless specified otherwise in the tender, it shall be construed that the terms and conditions stipulated here under have been agreed to.

1. There should not be any over writing or corrections in the tender. If a figure is to be amended, it should be neatly scored out, the revised figure to be written above and the same be attested with full signature, seal and date. In the absence of the attested signature, the tender is liable to be rejected.
2. On acceptance of the tender, it will become a contract and the contractor shall be bound by the terms and conditions of the tender as specified in **Annexure ‘A’**.

3. **A sum of Rs.1,00,000/- (Rupees One Lakh only) in the form of Demand Draft in the favour of Central University of Karnataka payable at Kalaburgi must be paid along with the tender as Earnest Money Deposit which is refundable without interest.**
4. If Tender Document is downloaded from the website: **www.cuk.ac.in**, tender document fee of **Rs. 2000/-** is also to be enclosed in the form of **Demand Draft along with E.M.D**
5. The person/persons whose tender is accepted here after called the contractor shall deposit Security Deposit which shall be payable @10% of the total amount. The Earnest Money Deposited will be adjusted with the Security Deposit.
6. If the Supplier fails to supply the Water Analysis Lab within the time stipulated in the Letter of Acceptance and supply order by the undersigned, the undersigned shall be at liberty to purchase the Lab equipment, from the market or get the rest of the contract completed by any other person or firm and the difference of the price, if any, shall be deducted from the earnest money/ security deposit and in case any amount in excess of the earnest money/security deposit is paid by the undersigned the contractor shall be liable to pay the loss incurred to **Central University of Karnataka, Kalaburgi.**
7. The quantity of Water Analysis Lab indicated in the attached statement may be increased or decreased at the discretion of the undersigned without assigning any reason.
8. The amount of **security deposit** shall be retained by the Central University of Karnataka, Kalaburagi for a period of **One Year** from the date of completion of supplies as a safeguard against any defect appearing in the items supplied within this period.
9. The rates quoted by the contractor shall hold good up to **six months from the date of opening of tender.** No amendment in the rate except increase in the statutory levies if any, during the period of execution of the contract will be accepted.
10. The tenders that do not comply with the above conditions are liable to be rejected without any notice/intimation.

Station: Kalaburgi

Co-ordinator (Procurement)
CENTRAL UNIVERSITY OF KARNATAKA
Kalaburgi- 585 311.

Annexure-A

Tender document

MANDATORY REQUIREMENTS

1. The Bidder must enclose the Authorization letter for supplying Water Analysis Lab for Industries /Institution/Organizations.
2. The Bidder must submit their quote as per Annexure-I(a,b & c)
3. The Company should be at least 03 years experienced and turnover of the company should be Ten Lakhs cumulative for 3 years audited balance sheet, with registration certificates to be enclosed
4. The Vendor should have executed at least 3 similar supplies of Said Water Analysis Lab of Ten Lakhs. The completion report with details of contact Person and the name of the Institution/University to be provided in the last one year calculated as on the date of opening of the bid.

TERMS AND CONDITIONS

5. The Rates Quoted should be Inclusive of all charges viz. packing, forwarding, local taxes, railway freight, transit insurance etc. and supply and installation at CUK, Kalaburgi.
6. The rates should be quoted for a single unit and also for the total quantity required by the University.
7. **L1** would be identified based on the **cumulative total cost of all the Testing Water Analysis Lab**
8. Losses or damages in transit will be to the account of the supplier. The supplier may if he so desires get the goods insured and include such charges in the tendered rate.
9. Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University's Purchase Committee, reserves the right to select the Water Analysis Lab of any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, Compatibility with the existing System, etc.
10. The payment for the ordered items would be made after the items have been received and found in order. Normally payment shall be made through a crossed cheque within 30 days of the receipt of goods to our entire satisfaction.
11. The undersigned is not bound to accept the lowest tender and may reject any tender or any part of the tender without assigning any reason thereof.
12. The price should be quoted on prescribed price schedule and must be sent in a properly sealed envelope.
13. The rates and units shall not be over written in the price schedule. The rates shall be quoted both in figures and words. The Tender should be signed by the authorized signatory of the firm.
14. **The payment will be made on actual basis after receipt of Water Analysis Lab as per specifications attached at Annexure-I, Annexure-II & Annexure-III its installation with satisfactory working performance.** In case the Water Analysis Lab for Geology Dept are rejected these have to be removed by the supplier at his own cost.

15. (a) The penalty Clause is as under:

Should the Bidder fail to deliver the Water Analysis Lab for Geology Dept within the period specified in the tender form, the University may, at its discretion, allow an extension in time subject to recovery from the bidder as agreed liquid damages, and not by way of penalty, a sum equal to 10 percentage of the value of order which the bidder has failed to supply for period of delay.

(b) In case of failure to supply the Water Analysis Lab for Geology Dept within the prescribed time and in accordance with the specifications given in the quotations, the University shall be free to cancel the order and make purchases from the next higher tenderer or from the open market as the case may be. In that case the loss sustained by the University shall be recovered from the defaulting supplier. The University will be at liberty to recover the loss from the payment of earnest money/or any other pending claims of the supplier without prejudice to its general right to effect recovery from the supplier.

12. No payment will be made in advance for any supplies under this tender. The valid documentary proof of **Authorised Distributorship/ Dealership**, Sales Tax, VAT/Service Tax Registration No. and details of Income Tax registration (PAN) should be submitted along with the quotation. The taxes must be quoted clearly and separately. If the taxes are not quoted separately, it will be presumed that the rates quoted are inclusive of taxes.

13. The University reserves the right to accept or reject any tender without assigning any reason.

14. The University reserves the right to verify/seek confirmation of all original documentary evidence submitted by the vendors in support of the tenders, specifications for eligible criteria. In case any information furnished by vender is found false/incorrect the tender will be rejected.

16. Delivery and installation of the item within 4 weeks from the date of P.O.

Co-ordinator (Procurement)
CENTRAL UNIVERSITY OF KARNATAKA
Kalaburgi-585 367

I accept all the terms and conditions mentioned above.

SIGNATURE: _____
ADDRESS OF THE PARTY; _____

Contact Number: _____

Email: _____

Annexure-I

SPECIFICATION FOR BENCHTOP UV-VISIBLE SPECTROPHOTOMETER

1. The spectrophotometer instrument shall be a multiwavelength, UV-Visible, Split Beam / Dual Beam spectrophotometer designed for laboratory analysis of water parameters
2. The Instrument should have More than 250 Pre-Programmed Methods
3. The Spectral Bandwidth should be 2nm
4. The Required reagents for the water parameters should be from the same manufacturer.
5. The wavelength range of the instrument shall be from 190 to 1100 nm with accuracy of ± 1 nm & resolution of 0.1nm.
6. The instrument should have User Guidance on Screen
7. The instrument, depending on the test selection, shall automatically select the wavelength.
8. The Instrument should have 10 fold measurement for 16mm Round sample cells
9. Readout modes shall include transmittance, absorbance, concentration, optional wavelength scan and time course graphs.
10. The instrument shall be capable of measuring aluminium; arsenic; chlorine dioxide; chlorine; chromium; color; copper; fluoride; iron; manganese; nitrogen (as ammonia, nitrate, nitrite, total nitrogen); chemical oxygen demand; phosphonates; phosphorus; potassium; silica; sulfate; sulfide; sulfite; surfactants; suspended solids; , zinc and many more
- 10 The Following Pre programmed Tests shall conform to USEPA-approved methods: arsenic; chlorine dioxide; chlorine, free; chlorine,total; chromium, hexavalent; copper; fluoride; iron (total); manganese; nickel; nitrogen (ammonia); nitrogen (nitrite);chemical oxygen demand; phenols; phosphorus (reactive);phosphorus (total); sulfate; sulfide; and zinc.
- 11 The instrument shall be equipped with storage capacity from 4000- 5000 data points & more than 100 user-defined calibrations.
- 12 The interface of the instrument shall be graphical with touch screen.
- 13 The instrument shall be capable of Sample Cell Compatibility Rectangular: 10, 20, 30, 50 mm, 1 inch; round: 13 mm, 16 mm, 1 inch & Optional 100 mm rectangular cell with additional adapter
- 14 The instrument shall provide graphical display and be capable of printing test results.

SPECIFICATIONS :

Operating Mode	:	Transmittance (%), absorbance and concentration (wavelength, time)
Optics	:	Split Beam / Dual Beam
Source Lamp	:	Tungsten (visible range), deuterium (UV range)
Wavelength Range	:	190 - 1100 nm
Wavelength Accuracy	:	± 1 nm
Wavelength Reproducibility	:	< 0.1 nm
Wavelength Resolution :		0.1 nm
Wavelength Selection	:	Automatic, based on method selection
Spectral Bandwidth	:	2 nm
Photometric Measuring Range:		± 3 Abs
Photometric Accuracy :		<1% at 0.5-2.0 Abs at 546 nm 5 mAbs at 0.0-0.5 Abs
Scanning Speed	:	900 nm/min (in 1 nm steps)
Photometric Linearity	:	0.5% - 2 Abs $\leq 1\%$ at > 2 Abs with neutral glass at 546 nm
Stray Light	:	KI-solution at 220 nm < 3.3 Abs/< 0.05%
Display	:	TFT 7 inch color touch screen
Data Logger	:	Minimum 4000- Maximum 5000 data points (result, date, time, sample-ID, user-ID)
Preprogrammed Methods	:	>230
User Programs	:	>175
Sample Cell Compatibility	:	Rectangular: 10, 20, 30, 50 mm, 1 inch; round: 13 mm, 16 mm, 1 inch
Operating Conditions	:	10 to 40°C, max. 80% relative humidity (non-condensing)
Storage Conditions	:	-25 to 60°C max. 80% relative humidity (non-condensing)
Instrument Enclosure Rating	:	IP 20 with closed lid
Interfaces	:	USB type A (2), USB type B, Ethernet,

SCOPE OF SUPPLY : The instrument should supply with Basic instrument , 1 Inch matched Glass sample cell , basic user manual, a multi adapter for round and rectangular vials, CD with manual and procedure manual in .pdf format. Power cords

SPECIFICATION OF BOD INCUBATOR

- BOD Incubator Capacity : 4 Cubic ft., 100 Liters
- Double walled Construction. Inner chamber SS 304. Outer Chamber M.S. Duly Powder Coated Surface/ Duco finish
- Temperature range 5°C to 50°C accuracy +/-0.5°C.
- Temperature control by Electronic digital controller cum Indicator with P.T – 100 sensor, 'PUF' Insulation.
- Refrigeration by Thermally sealed immersion Copeland' compressor with 'CFC free' Gas (ECO friendly), With air circulation fan uniform temperature.
- Unbreakable transparent acrylic inner full view door apart from double walled outer, Door, with magnetic gasket
- Unit provided with fiber wheels for easy movement; illumination lamp provided inside, The chamber with switch.
- Unit provided with SS Rod type trays for keeping test sample.
- Inner Dimensions (H x W x D cm) : 50 x 50 x 40
- No. of Trays : 2

SPECIFICATION OF COD DIGESTOR/ REACTOR

1. The digestion reactor shall be a bench top instrument for heating prepared samples to temperature for the designated time for the test.
2. The instrument shall have a programmable temperature range of 37 to 165°C
3. The instrument shall have a programmable timer range of 0 to 480 minutes
4. The instrument shall have a heating rate of 20 to 150°C in 10 minutes.
5. The instrument shall be equipped with stored digestion programs for COD & TOC
6. The instrument shall accommodate 15 x 16 mm vial wells
7. The power requirements of the instrument shall be 100-240 Vac, 50/60 Hz
8. Analysis of COD Parameter should be done in Same Make of UV-VIS spectrophotometer

SPECIFICATIONS :

Programmable Temperature Range	:	37 to 165°C (99 to 329°F)
Operating Temperature	:	10 to 45 °C (50 to 113°F)
Programmable Timer Range	:	0 to 480 minutes
Heating Rate	:	20 to 150°C in 10 minutes
Temperature Stability	:	± 1°C
Stored Programs	:	COD 150°C 120 minutes
		TOC 105°C 120 minutes
		Fixed 100, 105, 30, 60, 150, 165°C 120 minutes
Power Requirements	:	100 to 240 Vac, 50/60 Hz, 600 VA
Compliance	:	CE, GS, cTUVus
Dimensions	:	25.0 x 14.5 x 31.0 cm (9.8 x 5.7 x 12.2 in.)
Number of Vial Wells	:	Single block : 15 vials x 16 mm

DUAL-INPUT MULTI-PARAMETER FOR MEASUREMENT OF PH, CONDUCTIVITY, DISSOLVED OXYGEN, TEMPERATURE, TDS, RESISTIVITY & SALINITY.

Meter should simultaneous measure pH, Cond, or Luminescent DO using with any two intelligent probes. The probe should store serial numbers, calibration history, user ID, time, date and location of readings. Multiparameter should compatible with Intelligent gel filled pH, 4 – Pole graphite Conductivity, LDO, BOD. Multiparameter should have EPA and ASTM accepted Luminescent DO Method.

Multi-parameter instrument should have the following features and specifications.

- Dual display of two different parameters/probes
- A single meter to measure pH, Conductivity, and LDO, Ion Selective Electrodes Like: Fluoride, Nitrate, Ammonia, chloride
- Intelligent probes to store the calibration data
- View information from two probes on one screen (up to two parameters)
- Maintenance free Luminescent DO probe (No membranes, filling solutions to replace)
- Stir free DO measurement
- Calibration reminder
- Automatic compensation for pressure in DO measurements
- Password-protected access control

pH:

Range: 0 – 14 pH

Resolution: 0.1/0.01/0.001 selectable

mV:

Range: -1500 to 1500 mV

Resolution: 0.1mV

Conductivity:

Range: 0.01 μ S/cm to 200 mS/cm (5 ranges)

Resolution: 0.01 μ S/cm

Accuracy: \pm 0.5% of reading

Salinity:

Range: 0 to 42 ppt

Resolution: 0.01 ppt

Accuracy: \pm 0.1 ppt

TDS:

Range: 0 to 50,000 mg/L

Resolution: 0.1 mg/L

Accuracy: \pm 0.5% of reading

Luminescent Dissolved Oxygen (LDO):

Range: 0 to 20 mg/L (0 to 200%)

Resolution: 0.01 mg/L

Accuracy: \pm 0.1 mg/L for 0.1 to 8.0 mg/L & \pm 0.2 mg/L for greater than 8.0 mg/L.

Display: Shall have large digital display for simultaneous readings from two probes

Data Memory: 500 data points

Data Storage: GLP/ISO compliant reading data stored with calibration details. Calibration details and check standard readings documented as events in log. Automatically store in "press to read" mode and interval measurement mode. Manually store in "continuous read" mode.

Data Export: Download via USB connection to PC or flash stick. Auto transfer of entire data log.

Display Lock Function: Continuous measurement or "press to read" mode with averaging function for LDO measurement.

Keyboard Input: For External PC keyboard connector

Power: 4 AA batteries; Battery life: > 200 hours; AC/DC power adapter

Water Resistance: Meter Casing: 1-meter submersion for 30 minutes (IP67)

Digital Titrator Kit

Precision, lightweight dispensing device for quick and easy titrations at the bench or in the field. The titrator should be able to accommodate interchangeable titrant cartridges, so multiple titrations with changing the cartridge and delivery tube is possible. The instrument should be durable and able to withstand heavy use with comfortable hand grip, accurate delivery knob to precisely control titrant flow by advancing a plunger which forces solution from the cartridge. The titrator should feature a digital counter which can be reset to zero after completion of titration.

Specification

Delivery 800 digits/mL

Accuracy $\pm 1\%$. Uncertainty of readings is 1 digit.

Weight Preferably less than 150g

Scope of Supply

The scope of supply should include

- 1) Digital Titrator Instrument ,
- 2) Cartridges/ Reagents for Total Hardness, Calcium Hardness, Chloride, Alkalinity .
- 3) Manual, Delivery Tubes and a carrying case
- 4) The Instrument and reagents should be of same Make

SPECIFICATION OF DOUBLE DISTILLATION UNIT

All Glass Double Distillation Unit, with Borosilicate Boiler, Borosilicate Condenser & Quartz Heater,
Horizontal Type with Distillation Apparatus Power Supply (DAPS)

SPECIFICATIONS:

Dist. Water Output Cap. (Approx) : 1.5 lt/hr

Electrical Requirements : 230-250 volts Single phase, 1.5 x 2kw Quartz Heater

Cooling Water consumption : 100 lt/hr

Biological Activity : Pyrogen Free,

pH : 6.9 – 7

Conductivity S/cm : $< 1 \times 10^{-6}$

Distillate Temperature : 65 – 75°C

SPECIFICATION OF HOT AIR OVEN

SPECIFICATIONS :

Laboratory Hot Air Oven (Mettler Type / Heating Elements from three sides),
Stainless Steel Chamber,

Two Shelves Temperature range 50 deg cen to 250 deg cen,

With Digital Temperature Indicator cum Controller & Air Circulating Fan

Working Size : 12" x 12" x 12" (1KW)

SPECIFICATION OF PORTABLE TURBIDITYMETER

Microprocessor-controlled portable Turbidimeter with ratio optics for testing of Turbidity, The instrument should have two-detector optical system to compensate for color in the sample, light fluctuation, and stray light,. The instrument should meet or exceeds design and performance criteria as specified in the United States Environmental Protection Agency (**USEPA**) Method 180.1. By providing direct digital readout in nephelometric turbidity units (NTUs), thus eliminating the need for calculations or interpolation of calibration charts. The instrument should be operable with AA alkaline batteries and optionally with power.

Technical specification

Measurement Method	Ratio turbidimetric determination using a primary nephelometric light scatter signal (90°) to the transmitted light scatter signal
Regulatory	Meets EPA Method 180.1
Lamp Source	Tungsten filament lamp
Range	0-1000 NTU
Accuracy	±2% of reading plus stray light from 0-1000 NTU
Repeatability	±1% of reading or 0.01 NTU, whichever is greater
Resolution	0.01 NTU on lowest range
Stray Light	≤ 0.02 NTU
Signal Averaging	Selectable on or off
Detector	Silicon Photodiode
Reading Modes	Normal (Push to Read) Signal Averaging Rapidly Settling Turbidity(TM)
Calibration Options	Single step for low-level regulatory reporting from 0-40 NTU Full range calibration from 0-1000 NTU Calibration to degrees of turbidity
Calibration Logger	Records the last 25 successful calibrations
Verification Logger	Logs the last 250 successful verifications
Data Logger	500 records
Power Requirement	AC 100-240 V, 50/60 Hz (with optional Power or USB+Power Module) 4 AA alkaline batteries Rechargeable NiMH (with optional USB+Power Module)
Operating Conditions	Temperature: 0 to 50 °C (32 to 122 °F) Relative Humidity: 0-90% at 30 °C, 0-80% at 40 °C, 0-70% at 50 °C non-condensing
Storage Conditions	-40 to 60 °C (-40 to 140 °F),
Interface	Optional USB
Sample Required	15 mL (0.5 oz.)
Meter Enclosure Rating	IP67 (closed lid, battery and module compartment excluded)
Protection Class	Power supply: Class II
Certification	CE certified
Warranty	1 year

ANNEXURE-II

Format for Technical Bid for the supply of Water Analysis Lab

Payment Details

DD No. _____
 DD Amount _____
 Bank Name/Branch _____

Technical Bid should indicate following information along with the self-attested photocopies of supporting documents:

1. Name of Firm/Agency: _____
2. Registered address: _____
3. Telephone No. (Landline): _____
4. Fax No.: _____
5. Mobile No.: _____
6. Email Address: _____
7. Name & Address of Branch, if any: _____
8. Type of Organization (whether sole proprietorship/partnership _____ Private Ltd. Etc)
9. Name of Proprietor/Partners/Directors _____

_____ of the Organization/Firm:

S. No.	Documentary Proof of	Attached (Yes/No)	Page Appendix No (If attached)
i.	Incorporation/inception/Registration of the agency		
ii.	Dealership/ Distributor/ Supplier/ Indian Agent/ Foreign Associates Authorised Certificate for the Supply of.....		
iii.	Name of the Foreign/Indigenous/Principal manufacture of.....machine/plant/equipment from where these are to be imported/procured for supply		
iv.	Name and Address of the Principal/Manufacture		
v.	Whether on rate contract with the DGS&D		
vi.	PAN Number		
vii.	CST/ST No.		
viii.	Service Tax Registration Proof		
ix.	VAT No.		
x.	Satisfactory Performance of supply of for last 3 year from at least Three organization/Institution of repute.		
xi.	The Bidder must enclose the Authorization letter for supplying specified Machinery (mandatory)		
xii.	The Company should be at least 03 years experienced and turnover of the company should be Ten Lakhs cumulative for, 3 years audited balance sheet, with registration certificates to be enclosed (mandatory) w.r. to Annexure -A		
xiii.	The Vendor should have executed at least 3 similar supply & installation of Said items, The completion report with details of contact Person and the name of the Institution/University to be provided in the last one year calculated as on the date of opening of the bid. (mandatory)		
xiv.	Technical Specifications of the		
xv.	Any other relevant information, specify		

Name and signature of the authorized person of the firm along with seal

Annexure-III

Financial Bid for supply of Chemistry Instruments

Name of the firm with address:-

Sl.no	Particulars	Quantity	Unit price (Rs)	In words
1	Water Analysis	One Set		
	Grand Total			

Name and signature of the authorised person of the firm.