

**CENTRAL UNIVERSITY
OF KARNATAKA**

(Established by an Act of the Parliament in 2009)



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NO.CUK/GEM/HEFA/F-12/2026-2027

Dated 21.05.2026

INVITATION FOR QUOTATIONS

Sealed quotations are invited from reputed manufacturers/authorized dealers having adequate experience and expertise in the field for the supply, installation, testing and commissioning of the following equipment/accessories required for ICPMS laboratory facilities in the Department of Geology / SIC, Central University of Karnataka, subject to the terms and conditions stipulated below.

S. N.	Equipment/accessories of ICPMS
1.	Dual Range Semi-Micro Balance
2.	Ball Mill
3.	Fume Cupboard
4.	Magnetic Stirrer with Heater
5.	Rock cutting machine

Sealed quotation should bear the superscription **"Quotation for supply of "** _____ **"** and should reach the following address on or before 01.06.2026.

THE REGISTRAR
CENTRAL UNIVERSITY OF KARNATAKA
ALAND ROAD, KADGANCHI
KALABURAGI DIST 585367, KARNATAKA

TERMS & CONDITIONS

- Suppliers may submit quotations for any individual equipment/item or for all the items mentioned in the invitation.
- The supplier should have a minimum of three years' experience in the supply and installation of the proposed equipment/items. Documentary evidence in support of experience, such as copies of supply orders/work orders/completion certificates issued by reputed institutions/organizations, shall be enclosed along with the quotation.
- Purchase Orders shall be issued based on the recommendations of the Expert Committee constituted for the purpose.
- The delivery needs to be done within 20 days after receiving the purchase order. No advance payment will be paid.
- The Authority reserves the right to either accept or reject any bid without assigning any reasons whatsoever and tenderer shall have no claim/s on this account.
- The vendor should have a valid Trade License/ Permanent Account No. (PAN), GST No, Bank Account etc.
- The completion of the work needs to be approved by the concerned Department/ Committee for the final approval.

Registrar

Copy to:

1. Director, IQAC
2. Dean/HOD, SES/Dept. of Geology
3. System Analyst – to upload on CUK Website
4. PS to VC
5. PS to Registrar

TECHNICAL SPECIFICATIONS

S. N.	Technical Specifications	Qty	Remarks
1.	<p>DUAL Range Semi-Micro Balance</p> <p>Capacity: 220 g / 102g mol Conversion Function: Included</p> <p>Display: OEL display (dot matrix)</p> <p>Weight: Approx. 7.9 kg</p> <p>Body Dimensions: Approx. 212(W) x 411(D) x 345(H)mm (power supply unit included)</p> <p>Pan Size: ø91 mm</p> <p>Sensitivity Stability Against Temperature Range: ± 2 ppm/°C (10 to 30°C)</p> <p>Operating Temperature/Humidity Range: 5 to 40°C 20 to 85% *5</p> <p>Ionizer: Optional</p> <p>Clock-CAL: Included</p> <p>Inspection Support Function: Included</p> <p>Sample (Concentration) Preparation: Included</p> <p>HPLC Buffer Solution Preparation: Included</p> <p>Minimum display: 0.01 mg / 0.1 mg</p> <p>Recipe Compounding: Included</p> <p>USB Device (Type B) : Included</p> <p>USB Host (Type A) : Included</p> <p>Response Time *4 : 2 sec. / 8 sec</p> <p>Response Time for race Measurements *3 : 2 sec.</p> <p>Linearity *2: ± 0.2 mg / ± 0.1 mg</p> <p>Minimum Weight *2: 20 mg</p> <p>Repeatability (Standard deviation): 0.1 mg / 0.05 mg</p> <p>External Calibration Weight Range for Span Calibration: 95 to 220.009 g (200 g)</p> <p>Calibration Weight: Built-in *1</p> <p>Input/Output Terminal: RS-232C (D-sub9P plug) USB host (Type A)</p> <p>USB device (Type B) Ionizer</p> <p>*1 Minimum display 0.01mg models provide two internal weights as standard.</p> <p>*2 Be compliant with USP Chapter 41. This is the tested value by the weight of the balance's capacity of 5% (or 5 grams' weight). In the case of the AP225W, the results are for tests carried out with the optional internal windbreak plate applied. The minimum weight value is affected by the installation environment, so it is necessary to measure it in the actual environment of use.</p> <p>*3 The response time for displaying 90% of the added sample amount value in trace measurements (from 1mg)</p> <p>*4 The response time value is typical.</p> <p>*5 Non-condensing.</p>	1	
2.	<p>Ball Mill:</p> <p>Planetary Ball Mill PM 100 for 230 V, 50/60 Hz, with 1 grinding station, speed ratio 1:-2</p>	1	

	<p>Planetary Ball Mills are used wherever the highest degree of fineness is required. In addition to well-proven mixing and size reduction processes, these mills also meet all technical requirements for colloidal grinding and provide the energy input necessary for mechanical alloying. The extremely high centrifugal forces of a planetary ball mill result in very high pulverization energy and therefore short grinding times. Product Advantages ➤ Powerful and quick grinding down to nano range. ➤ Reproducible results due to energy and speed control. ➤ Suitable for long-term trials. ➤ 2 different grinding modes (dry and wet). ➤ Optional pressure and temperature measuring system PM GrindControl. ➤ Measurement of energy input. ➤ Wide range of materials for contamination free grinding & Safety Slider for safe operation. ➤ Perfect stability on lab bench thanks to FFCS technology. ➤ Innovative counter weight and imbalance sensor for unsupervised operation. ➤ Comfortable parameter setting via display and ergonomic 1-button operation. ➤ Automatic grinding chamber ventilation. ➤ 10 SOPs can be stored & Programmable starting time. ➤ Power failure backup ensures storage of remaining grinding time. ➤ Jars with O-type sealing for safe operation, pressure tight.</p> <p>Specifications ➤ Applications - pulverizing, mixing, homogenizing, colloidal milling, mechanical alloying ➤ Feed material - soft, hard, brittle, fibrous - dry or wet ➤ Size reduction principle - impact, friction ➤ Material feed size* - < 10 mm ➤ Final fineness - < 1 µm, for colloidal grinding < 0.1 µm, No. of grinding stations – 1 ➤ Speed ratio - 1 : -2 ➤ Sun wheel speed - 100 - 650 min-1 ➤ Effective sun wheel diameter - 141 mm</p> <p>➤ Type of grinding jars - "comfort", optional aeration covers, safety closure devices ➤ Material of grinding tools – Hardened Steel. ➤ Setting of grinding time - digital, 00:00:01 to 99:59:59 ➤ Interval operation - yes, with direction reversal ➤ Interval time – 00:00:01 to 99:59:59 ➤ Pause time - 00:00:01 to 99:59:59 ➤ Storable SOPs – 10 ➤ Measurement of input energy possible- Yes ➤ Interface - RS 232 / RS 485</p>		
	01.462.0510- Grinding jars of 80 ml Zirconium Oxide with yttrium stabilized		
	05.368.0094-Grinding Balls 10 mm Zirconium Oxide		

3.	FUME CUBOARD	Qty	Rate
	<p>Model: VAG-180SP</p> <p>Source : Zeba Lab Systems Pvt. Ltd.</p> <p>Fume cupboard 1825mm wide services are water, 2gas(lpg)&electrical with VSB 25 blower</p>	1	

4.	Magnetic Stirrer with Heater	Qty	Rate
	<p>Magnetic Stirrer with Heater, 20 Ltr</p> <p>Features:</p>	1	

	<ul style="list-style-type: none"> - Robust top made up of nano-crystalline glass ceramic for resistance against temperature shocks and liquid splash - Elevated control panel for protection against leaking liquids - Display for easy value setting, all set values readily visible without toggle. No shared display - 3 heating modes for rapid, gradual & accurate heating - Pulse mode for vigorous mixing of liquids - Constant speed across diverse loads and viscosity- - Compatible with PT- 1000 Temperature Probe for accurate measurement of media temperature (available as an optional accessory) - Powerful BLDC motor for constant speed delivery under varying load conditions <p>Specifications: =====</p> <p>Order Code: MS 303 Speed Range : 200 - 2200 in steps of 10 RPM Dimensions (L x W x H) : 330 x 225 x 113 mm Stirring Quantity in Ltr (Max) : 20 Heating Temp. Range (°C) : Ambient to 550°C Set-up Plate Feature : Ceramic Plate Set-up Plate Dimensions : 180 x 180 mm RS 232 interface : Yes Weight :5.4 kgs Temp. Accuracy : ±1°C IP Rating : IP 21 Safety Temp. Circuit : Yes Slip Detection : Yes</p>		
	External Sensor (PT 1000)	1	
5.	Rocking cutting machine 1. Rock Cutting Machine with rock holder with 5" /10" 2. Diamond Blade and other accessories 3. Motor Capacity 2 HP	1	