



Department of Geology
University of Kerala
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No. 197/GIFAT/GOL/2019

Dated 11th June 2019

QUOTATION NOTICE

Sealed competitive quotations are invited from reputed firms for the supply of following branded items with the same specifications for the new Geological Investigation and Field Analog Training (GIFAT) Centre in the Department of Geology, University of Kerala, Kariavattom, Thiruvananthapuram.

1. Global Positioning System (GPS)-5 nos.

Technical Specifications: No. of waypoints: 500 to 2000, Waypoints per route: 16hr to 25 hr, Battery: 25 h, Memory: Internal 8MB, Display: Monochrome (128x160 pixels), GPS Antenna: 2.1x4.0x1.3, Waterproof: yes.

2. Brunton Compass- 5 Nos

Technical Specifications: Needle: Induction dampened, damping time ≤ 15 , North (N) should be marked, Vernier: With vernier (for fine inclination measurement), Circle: Graduation 0-360°, Diameter-outer (65-0.05mm) Inner (55+0.2mm), Level Bubble: Circular level for azimuth measurement and plate level for inclination measurement, Mirror: Precision aligned mirror with convenient "see-through" sighting capability, Accessories: In a leather Case.

3. Geological Hand Lens-10 Nos.

Technical Specifications: Eyepieces: Glass lens, Magnification: x 10 to x20, Diameter (viewable area): 15mm to 20mm, Body: Stainless steel/ stainless steel with chrome finish
Lens housing: Plastic with rubber outer layer/Stainless steel / stainless steel with chrome finish.



4. Geological Hammer- 5 Nos

Technical Specifications: Head weight - 600 grams or above, Material – Steel Head Width- 7 inch or above, Overall Length- 11 inch or above, Handle - steel, bound in leather, Edge - Pointed tip.

5. Laser Range Finders / Laser Distance Meter

Technical Specifications: Distance: 5 m to 500m, Magnification Power: 6X
Objective Lens Diameter: 20 - 25mm, Dimensions (L x H x W) (mm): 130 x 69 x 45
Power source CR2 lithium battery x 1 (DC3V), Auto power shutoff function equipped (after 30 sec.), Water proof: Yes

6. High quality Rock thin sections with corresponding hand specimens (Wards collection)

Igneous rocks- 7 Nos

Metamorphic Rocks-7 Nos

Sedimentary rocks-7 Nos

Ultramafic rocks-12 Nos

Wards collection of samples- Catalog No. 470233-426 and Catalog No. 470024-960

7. High quality mineral thin sections- 4 Nos (Wards Collection)

Olivine - Catalog No. 470024928

Kyanite- catalog No. 470024892

Andalusite- catalog No. 470024920

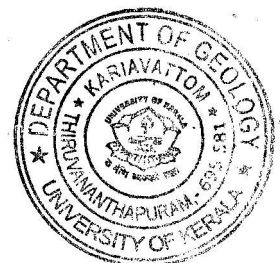
Nepheline- catalog No. 470024900

8. MULTIPARAMETER WATER QUALITY ANALYSER with Fluoride Ion Electrode (PORTABLE METER pH/ mV/ISE /TEMP.)

SPECIFICATIONS

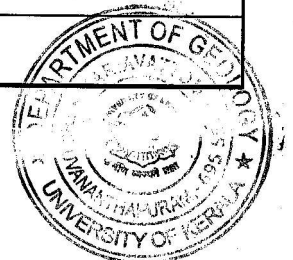
Waterproof handheld meter with software, power adapter & carrying kit set (all probes should have 3 m cable length). The instrument should have the following specifications :

- Date and Time to meet GLP
- Password protection
- Calibration reminder & high/low alarm
- Toggle views with a touch of a button
- Graphic LCD with adjustable backlight
- Calibrate with custom pH buffer values or preset buffer groups
- 500 point memory – log manually or at intervals
- Easily view calibration data
- Upgradable software
- Selectable 0.1 / 0.01 / 0.001 pH resolution



The individual specifications of each electrode are as follows:

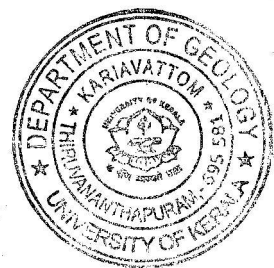
pH	Range	-2.000 to 20.000 pH
	Resolution	0.1/0.01/0.001 pH
	Accuracy	±0.002 pH + 1 LSD
	Buffer Sets	USA: 2.000, 4.010, 6.997, 10.013, 12.000 NIST: 1.678, 4.010, 6.865, 9.184, 12.460 DIN: 1.090, 3.060, 4.650, 6.790, 9.230, 12.750 FSCI: 1.000, 3.000, 6.000, 8.000, 10.000, 13.000 CUSTOM: Any 2-5 values, ≥1.0 pH unit apart
	Slope Display	Yes, up to 5 different slopes with offset
	Temp Compensation	Automatic or manual (0 to 100 °C / 32 to 212 °F)
	Ion	Range
Resolution		0.001 / 0.01 / 0.1 / 1 (automatic)
Units		ppm, mg/L, molar
Accuracy		0.5 % full scale (monovalent ion) 1 % full scale (divalent ion)
Cal Points		2 to 6 points from one of following groups; 0.001, 0.01, 0.1, 1, 10, 100 0.01, 0.1, 1, 10, 100, 1000 0.02, 0.2, 2, 20, 200, 2000 0.1, 1, 10, 100, 1000, 10000 0.05, 0.5, 5, 50, 500, 5000
mV	Range	2000.0 mV / Rel. mV
	Resolution	0.1 mV
	Accuracy	±0.2 mV or ±0.05 % whichever is greater
	Offset Adjustment	Up to ±150 mV
Temperature	Resolution	0.1 °C / 0.1 °F
	Resolution	±0.3 °C / ±0.5 °F



	Calibration	Offset in 0.1 ° increments; offset range: ±5 °C / 9 °F
Output	RS-232 (phono plug), mini-B USB, stirrer	
Language Selection	English, French, Spanish, German, Italian Chinese, Korean, & Portuguese	
Memory	500 data sets, viewable	
Datalogging	Manual, timed (selectable every 3 to 3600 seconds). Printer or CSV format	
Cal Due Alarm	Yes, user selectable from 8 hrs, 16 hrs, & 1-31 days	
High / Low Alarms	Yes, user selectable, visual & audible	

ION SELECTIVE ELECTRODE

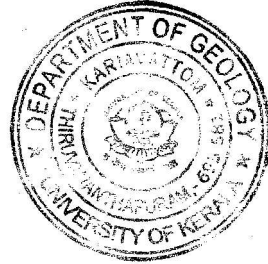
PARAMETER	FLUORIDE
Type	ISE - solid-state
Combination Or Half Cell	Combination
Refillable Or Gel (Sealed)	Refillable
Refill Solution	13-620-431
Ionic Strength Adjuster	TISAB II 13-642-578 TISAB III 13-641-874
Glass Or Plastic Body	Plastic
Max Temp	80 °C
Length x Diameter (mm)	110 x 13
Connection	BNC
Interferences	OH ⁻
Range (ppm)	0.02 to saturated
Calibration Solutions	100 ppm (13-641-872) 1 ppm w/TISAB II (15-411) 2 ppm w/TISAB II (15-412) 10 ppm w/TISAB II
0.1M	NaF
Typical application and Notes	Drinking water, stack gases, sea water, minerals, soils, foods, biological fluids, toothpaste, ASTM/EPA Method



Interested parties can submit quotations for single or multiple items. The Quotations should reach "*The Head of the Department, Department of Geology, University of Kerala, Kariavattom, Thiruvananthapuram-695581*" on or before 28th June 2019, 4.30 pm. The quotations will be opened at 11.00 a.m. on 03th July 2019, at the Department of Geology, University of Kerala, Kariavattom Campus.

Terms and Conditions:

1. The quoted rate must include all taxes, delivery charges, installation and any other charges.
2. The offers should be valid at least 90 days from the date of opening of the tender.
3. Complaints with the items supplied should be rectified /replaced to the satisfaction of the University by the suppliers at their own cost.
4. Payment will be made only after the supply and successful installation of the items at our site.
5. All the items should have a minimum of 1 year warranty.
6. The undersigned reserves the right to reject /accept any quotation without assigning any reason.



12/06/19.

Associate Professor and Head
Department of Geology
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Karyavattom, Trivandrum
Kerala.