

COLLEGE OF AGRICULTURE, MUL (MARODA)

Distt. CHANDRAPUR

Quotation Notice

No. CoAM/SS Lab/...909/2025

Date: 10/10/2025

Subject: Quotation for the purchase of analytical equipment's, machineries and other materials for the establishment of Soil Science laboratory at College of Agriculture, Mul

We intend to purchase of **analytical equipment's, machineries and other materials** for the establishment of Soil Science laboratory at College of Agriculture, Mul. Therefore, you are requested to forward your quotations (**Purchase of analytical equipment's, machineries and other materials for the establishment of Soil Science laboratory at College of Agriculture, Mul**) to reach this office on or before 28.10.2025 (Tuesday) up to 5.00 PM. as per details given as under

Sr. No.	Particulars	Quantity	Cost /Item including GST (Rs.)	Total Cost (Rs.)																										
1.	Microprocessor Based pH System Systronics Model:361 Specification pH Range : 0 to 14.00 pH mV : 0 to ± 1999mV Slope Correction : 80% to 110% Resolution : 0.01 pH ± mV in mV Mode Display : 3½ Digit RED LED Seven Segment with Automatic polarity & decimal point. Power : 230V ± 10% 50 Hz, 10 VA	1																												
2.	MICRO CONTROLLER Based CONDUCTIVITY METER Systronics Model: 306 Specification : Range : 0.1µs to 100 mS (6 decadic ranges) Accuracy : ± 1% of the F.S. ± 1digit. Minimum Reso. : 0.001 µs Display : 7 digit, 7 segment LED 4 digit for conductivity 3 digit for temp. Cell constant : Acceptable from 0.1 to 5 Power req. : 230V, ± 10%, 50 Hz	1																												
3.	SPECTROPHOTOMTER (VISISCAN) Systronics Model : 167 <table><tr><th colspan="2">Technical Specifications</th></tr><tr><td>Wavelength</td><td></td></tr><tr><td>Range</td><td>340 to 999 nm</td></tr><tr><td>Accuracy</td><td>± 2.0nm</td></tr><tr><td>Readout</td><td>1nm step</td></tr><tr><td>Band width</td><td>5.0nm</td></tr><tr><td>Photometric</td><td></td></tr><tr><td>Range</td><td>-0.04 to 2.5Abs</td></tr><tr><td>Accuracy</td><td>± 0.01 Abs at 1.0 Abs</td></tr><tr><td>Repeatability</td><td>± 0.005 Abs</td></tr><tr><td>Resolution</td><td>0.1 in %T mode, 0.001 A in ABS mode</td></tr><tr><td>Digital readout</td><td>2 line 20 character LCD</td></tr><tr><td>Drift</td><td>± 0.003 Abs/hour at 340nm</td></tr></table>	Technical Specifications		Wavelength		Range	340 to 999 nm	Accuracy	± 2.0nm	Readout	1nm step	Band width	5.0nm	Photometric		Range	-0.04 to 2.5Abs	Accuracy	± 0.01 Abs at 1.0 Abs	Repeatability	± 0.005 Abs	Resolution	0.1 in %T mode, 0.001 A in ABS mode	Digital readout	2 line 20 character LCD	Drift	± 0.003 Abs/hour at 340nm	1		
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Baseline Flatness	± 0.005 A
Stray Light	Less than 0.3%T
Grating	600 lines/mm
Source	Tungsten-Halogen lamp
Detector	Silicon Photodiode
Sample holder: Two position manual sample changer or factory installed single position holder for 20 mm//50mm (Max) path length cell.	
Minimum volume	1 ml in 4 ml cuvette
Operating Modes	• Single wavelength, • Multi wavelength (max 6) • Scan • Concentration. (with factor and curve fitting)
Measuring modes	• Absorbance • % Transmittance • Concentration (as above)
Data processing	• Peak Pick (6 peaks in ABS value) • Spectrum printout (on Epson compatible dot matrix printer)
Data Presentation Display Hard Copy	20 characters & 2 line alphanumeric LCD On printer (Graph and Data both)
Standard Accessories	i. Two 10mm glass cuvettes ii. Instruction manual iii. Printer port for DMP
Power	230v AC ± 10% 50Hz

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FLAME PHOTOMETER "SYSTRONICS" Model: 128

Range of Operation

Elements	Low conc. Mode (Max) Without Dilution	High conc. Mode (Max) Without Dilution
Na	10 ppm.	100 ppm
K	10 ppm.	100 ppm
Li	2 ppm.	50 ppm
Ca	100 ppm.	300 ppm
Mg	100 ppm	300 ppm

Minimum Detective limit

Na : 2 ppm K : 1 ppm Li : 1 ppm Ca : 3 ppm Mg: 3 ppm

Curve fit software is provided for high concentrations mode.

Curve fit accuracy : + 2% f.s.

- Filters (10nm Typical) : Na and K supplied; Li and Ca (Optional)
- Reproducibility : Low conc. : + 1% f.s. High conc. : + 2% f.s.
- Minimum sample : Aprox. 3 ml per elements
- Averaging : 2 to 15 seconds, selectable
- Operating air pressure : 0.45 kg/cm² (typical)
- Fuel gas : LPG
- Power supply : 230 vac ± 10% 50 Hz.

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FILTRATION ASSEMBLY "AXIVA" Cat. No. 170047PW

Complete Assembly Needs

- Filter Funnel PP with Cover capacity 250 ml .
- Membrane Filter C. N. 47 mm/0.45 µm pack of 100
- Vacuum Flask one liter

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	• Vacuum pump diaphragm type-oil free • Air vent filter- Hydrophobic PTFE 50 mm/ 0.2 µm • PTFE Syringe Filter 25mm /0.2 µm with needle • Flexible Silicon Tubing 1 mtr • Plastic Tweezers (Forceps)			
6	Automatic Distillation System Brand: KEL PLUS Model: CLASSIC DX • Fully Auto-run Completely Programmable Microprocessor based Distillation System with in-built software, • 100 predefinable User Storage Programmes. • Application: Total Nitrogen, Organic Nitrogen, Protein Determination, Available Nitrogen, Nitrate Nitrogen, Nitrite Nitrogen, Ammonical Nitrogen, Devarda Nitrogen Determination • Automatic Boric Acid Addition, Dilution, Alkali Addition, Steam Processing, Automatic Residue Removal with delay time features, Process over indication with alarm, Micro brilliant distillate control, Titration Connectivity feature for future upgradation with complete automatic safety features, Two-line Alpha numeric Digital LCD Display, • Automatic built-in KMnO4 addition for determination of available Nitrogen without pump & accessory module • The suction module of waste residue is door mounted for easy serviceability. • Enables Automatic monitoring and measuring of high temperature in distillate with sensor for auto warning signal and safety alarm to alert user to control distillate temperature. Temperature displayed digitally. • Auto reagent Level Sensor with Alarm, Stainless steel non corrosive steam Generator, Automatic water level monitoring & Peristaltic pump for reagents addition • Reagent tanks (2 litres) wall mounted for easy handling and user's visibility. • The control panel unit along with inbuilt temperature controller, timer, mother board and SMPS is isolated in separate control tower (not rack mounted internally) and housing to protect electronics from wet chemistry & acid/alkali process area for longevity and safety of all electronic components, with separate access door for main unit & electronics control tower unit. • Equipment incorporates transparent view window to watch the distillation process & splash head. • Non Corrosive robust metallic condenser • With extra Sample Tubes.	01		
7	Glass Distillation Unit "Bhanu- Infusil" Make : ES?-2000 DDQ-XL-BG Type: Double Distillation Unit with Auto Cut-Off Auto-Cut-Off: An Additional Pressure Temperatures Switch (PTS) for safety of the boiler: The unit switches off if water Level in the boiler falls below the heater. Power (kW): 3.0 kW (1500W x 2 Silica Heater) Cooling Water Requirement Ltrs/Hr. (Approx.): 35 x 2-37 x 2 inputs Output Ltrs/ Hr. : 2 Ltr/Hr.	1		

	Conductivity $\mu\text{S}/\text{cm}$: 0.8-1.0$\mu\text{S}/\text{cm}$ Power: 220/240V, 20/60 HZ, Single Phase Other Futures: Silica Heater: Help in easy cleaning of the boiler. The scaling formed can easily be rinse and no damage is caused to the heater. Screw Thread Connectors: All plumbing connections to the equipment including that to the Silica Heater are made via Screw thread connectors with 'O' ring, which helps in easy installation and avoids the danger of glassware breakage during assembly. Powder Coated Stand: The Stand is powder coated for long rust free operation.						
8	ROTARY SHAKER / ORBITAL SHAKER "Smita-Scientific" The housing made of CRCA Steel - Powder Coat finished. • Universal Platform made from S.S. 304 Grade to accommodate interchangeable lotus clamps of assorted sizes for different capacity of flasks. • Shaking Speed : 20 RPM to 200 RPM. • Shaking Stroke: 25 MM. • Operates on 230 Volts AC Single phase 50 Hz. <table><tr><td>UNIVERSAL PLANTFORM</td><td>CAPACITY</td></tr><tr><td>325 x 325</td><td>250- Or 500-ML x 8 Flask</td></tr></table>	UNIVERSAL PLANTFORM	CAPACITY	325 x 325	250- Or 500-ML x 8 Flask	1	
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9	Electronic Digital Precision Balance "WENSAR": PGB1210 With Rechargeable Battery Capacity : 1200gm Readability : 0.01gm Repeatability : 0.01gm Pan Size : 120mm Calibration : External Calibration Display : LCD with white back light Power : Adaptor using AC 220V/50Hz	1					
10	Analytical Weighing Balance "WENSAR":KAB5L Capacity : 220gm Readability : 0.0001gm Repeatability : 0.0001gm Pan Size : 90mm Calibration : Internal Calibration Display : LCD Power : Adaptor using AC 220V/50Hz	1					
11	Hot Air Oven "Smita- Scientific" • Double wall construction with Inner chamber made of Stainless Steel – 304 Grade • Exterior of CRCA steel with powder coat finish. • Heating elements are made of high grade Nichrome wire and placed at the bottom. • Temperature Range: 5°C above ambient to 250°C • Temperature controlled by PID Dual Display Digital Temp. Controller cum indicator • with $\pm 2^\circ\text{C}$ Accuracy.	01					

	Operates on 230 Volts AC Single phase 50 Hz.			
12	<u>WATER BATH : RECTANGULAR- DIGITAL (Argon Welded)</u> Double walled with 100% leak proof argon welded S.S. 304 grade& exterior of M.S. powder coat finish. - High density glass wool insulation in between the wall to minimize the heat loss. - Heating by 'U' type S.S. immersion heater. - Concentric rings to use flasks from 50ml to 500ml capacity. - Temperature controlled by Dual Display Microprocessor based PID Temp. Controller with PT-100 Sensor with +/- 1°C accuracy. - Temp. Range: - 5°C Above ambient to 99°C. - Operates on 230 Volts AC Single phase 50 Hz.	01		
13	Macro Kjeldahl Distillation "JSGW" : 481 Comprising of 500 ml Kjeldahl flask, multiple adapter, dropping funnel with plug, splash head, condenser and receiver adapter, as per Quick fit. Along with its stand, holder and Rubber Cork.	05		
14	ATOMIC ABSORPTION SPECTROPHOTOMETER (Systronic) Monochromator : Czerny-Turner type, focal lengths at 350mm Wavelength range : 180-900 nm Grating: Holographic diffraction with 1800 lines/mm Reading mode: T, A, C Photometric range : 0-125%, -0.1-3.00A Sensitivity (Cu) : approx. 0.9A at 5 ppm, RSD≤0.5% Slits : Automated slit selection 0.1; 0.2; 0.7; 1.4; 2.0 nm Detector: Wide range UV sensitive photomultiplier tube Lamp: Automated 4-lamp Background Correction: Deuterium (D2) Background Correction Burner : Titanium 100mm burner Nebulizer : High efficiency glass nebulizer With Essential Accessories..... Gas Controls : Programmable gas control features software-controlled gas flows with automatic setting of gas flows for each element Power supply: AC 220V/50HZ with exhaust assembly.	01		
15	Agate Mortor & Pestle, Black Size: 100mm	01		
16	Sieve 2mm Made of Brass 20cm dia.	01		
17	Sieve 0.5mm Made of Brass 20cm dia.	01		
18	Bouyoucos Hydrometer Range: 5 to 60 gm / ltr, Temp: 68°F	01		
19	International Pipette assembly	01		
20	Desiccator Plain with knobbed lid, Ground Flanges Neutral Glass, with Perforated Porcelain Plate. Size 210 MM Dia	01		
21	Aluminium Moisture Box (100 gm)	25		

22	Refrigerator, Samsung, 150 lit Capacity, 5 Star, Single Door	01		
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Please write on the envelope **“Quotations for Purchase of analytical equipment's, machineries and other materials for the establishment of Soil Science laboratory at College of Agriculture, Mul.**

Note.

1. Rates should be for Chandrapur/ Gadchiroli/ Nagpur/Amravati/Akola inclusive of all taxes, insurance, packing and forwarding charges.
2. Quotation should be sent in the name of **Associate Dean, College of Agriculture, Mul, Dist-Chandrapur** Pin Code- 441224.
3. If rates are approved you will have to supply the materials within eight days from the date of the supply order.
4. Your Quotation should reach the undersigned on or before the date **28.10.2025**
5. Quotations received late will not be considered.
6. Payment will be done only after completion of work successfully
7. The rates quoted will have to be inclusive of **all taxes** with delivery at College of Agriculture, Mul.
8. All the rights to accept whole or part of the quotations or reject are reserved with the undersigned without assigning reason.



**Associate Dean
College of Agriculture, Mul**

Copy to: - Officer In-charge, ARIS cell, Dr. PDKV, Akola for information and to publish the same on University website.