



KERALA AGRICULTURAL UNIVERSITY

Regional Agricultural Research Station (SZ), Vellayani

Thiruvananthapuram - 695 522, Kerala

E-mail : adrvellayani@kau.in, Phone No.0471 2383239



No. RARS/SZ(5)/4886(J)/2021

Dated: 23/02/2022

TENDER NOTICE

Sealed Competitive tenders are invited for Supply and Installation of following Laboratory Instruments for Regional Agricultural Research Station (Southern Zone), College of Agriculture, Vellayani, as per the technical specifications and the terms and conditions mentioned below.

Tender No. : RARS/SZ(5)/4886(J)/2021
Last Date & Time for receipt of Tender : 10/03/2022 2pm
Date & Time for opening of Tender : 10/03/2022 2.30 pm
Designation and address of Purchasing Authority : The Associate Director of Research,
RARS(SZ), College of Agriculture,
Vellayani P.O., Tvm. Pin - 695 522.
Place of supply : Regional Agricultural Research Station
(Southern Zone), College of Agriculture,
Vellayani

List of Laboratory Instruments

Sl. No.	Instrument	Qty.
1	Digital Magnetic Stirrer with Hot Plate	1
2	Centrifuge	1
3	GPS	1
4	Top loading precision balance	1
5	Water proof pH tester	1
6	Monocular microscope	2
7	pH meter (Pen type)	2
8	Portable hand held Global Positioning System	2
9	Single distillation unit with quartz heater- Horizontal type	1
10	Magnetic stirrer	2
11	Vacuum pump	2
12	Hot plate (Rectangular type)	1
13	Weighing balance	1
14	Horizontal shaker	1
15	Lux meter	1
16	Horizontal Glass Single water Distillation Unit	1
17	Vertical Autoclave	1

Detailed Specifications

Sl. No.	Instrument	Qty.
1	<p><u>Digital Magnetic Stirrer with Hot Plate(Digital type)</u> Plate Form Size: 18x18CM Material: Ceramic Heating: 50°C – 500°C Max Load: 11kg Stirring Speed Range: 100-1200 RPM Max. Capacity: 5 Litre. Dimension (WxHxD): 32x24x12 cm Warranty :2 years onsite</p>	2 Nos.
2	<p><u>Centrifuge</u> Brushless DC motor, Microprocessor controlled with variable speed and time setting Last run memory function Rotor 6x15ml 500-6,500 rpm imbalance detection with auto cut off Lid lock safety – Automatic lid release after run completion Timer setting 1-30 minutes & infinite mode One switch change over from RPM TO RCF Warranty :2 years onsite</p>	2 Nos.
3	<p><u>GPS</u> <u>Performance</u></p> <ul style="list-style-type: none"> • Processor – Garmin • Accuracy – 3 meters • Update rate – 1Hz • Time taken to give first fix – 15 sec • USB connection • 25 hr battery backup <p><u>Track details</u></p> <ul style="list-style-type: none"> • Waypoints/Locations – 2000 • Routes – 200 • Track log – 10000 points, 200 saved tracks • Area Calculation <p><u>Generic</u></p> <ul style="list-style-type: none"> • Handheld, Built-in Antenna • 54 X 103 X 33 mm • 12 channel • Pre-loaded handheld software • Compatible office software • Base Map, WAAS Enabled • Paperless Geocaching • Inbuilt electronic compass & Inbuilt Barometric Altimeter facility <p><u>Storage</u></p> <ul style="list-style-type: none"> • 5 GB RAM • Micro SD Card slot • expandable up to 32 GB <p><u>Display</u></p> <ul style="list-style-type: none"> • TransflectiveColour TFT • 240 X 320 pixel Display Resolution <p>Warranty :2 years onsite</p>	1 No.

4	<p><u>Top loading precision balance</u> Capacity-1200g; Readability -0.01g; Linearity-0.02g Pan size (mm/ inch) - 198X 205 / 7.8''X 8.0'' Warranty :2 years onsite</p>	1 No.
5	<p><u>Water proof pH tester</u> Description- Water proof pH tester 20 Tester with ATC; Range-1 - 14 pH; ± 0.01 pH accuracy ; Resolution- 0.01 pH Warranty :2 years onsite</p>	1 No.
6	<p><u>Monocular microscope</u> Monocular inclined microscope with LED illumination and battery back up. Aluminium die cast body, built in illuminator, coupled with efficient collector lens, abbe condenser, with aperture iris diaphragm NA, 1.25 provided with a filter holder. eye piece-WF 10 x compatible with eye piece micrometer., objective lenses- 10 x,40x,100x and oil immersion Warranty :2 years onsite</p>	2 Nos.
7	<p><u>pH meter (Pen type)</u></p> <ul style="list-style-type: none"> • Resolution 0.1pH(ATC) • pH buffer Point 3pt • Range -1 to 14pH • Small Display with Auto Cal <p>Warranty :2 years onsite</p>	2 Nos.
8	<p><u>Portable hand held Global Positioning System</u></p> <ul style="list-style-type: none"> • 2.2'' sunlight-readable color display with 240 x 320 display pixels • Preloaded with TopoActive maps with routable roads and trails • Support for GPS and GLONASS satellite systems • 8 GB of internal memory • MicroSD card slot • 3-axis compass and barometric altimeter • Battery life: up to 25 hours in GPS mode with 2 AA batteries <p>Warranty :2 years onsite</p>	2 Nos.
9	<p><u>Single distillation unit with quartz heater- Horizontal type</u></p> <ul style="list-style-type: none"> • All Glass Distillation Units, pyrogen free with • Borosilicate Boiler & Borosilicate Condenser & Quartz Heater • Out put- 4 litre/h • Conductivity S/cm- $<3 \times 10^{-6}$ • Distillation Temp ($^{\circ}$C)- 65- 75($^{\circ}$C) • Voltage- 230- 250 V <p>Warranty :2 years onsite</p>	1 No.
10	<p><u>Magnetic stirrer</u> Magnetic stirrer with electronic speed regulator and hot plate, capacity one litre Warranty :2 years onsite</p>	2 Nos.
11	<p><u>Vacuum pump</u></p> <ul style="list-style-type: none"> • Oil free vacuum pump piston type- 0.5 Hp <p>Warranty :2 years onsite</p>	2 Nos.
12	<p><u>Hot plate (Rectangular type)</u></p> <ul style="list-style-type: none"> • M.S powder coated body , • Hotplate surface fabricated with thick S.S sheet. • Temp: regulated by Energy Regulator • Size: 45 x 60 cm <p>Warranty :2 years onsite</p>	1 No.

13	<p><u>Weighing balance</u></p> <ul style="list-style-type: none"> • Specification -Type - electronic, single pan • Capacity - up to 3000 g • Resolution - 100 mg • Pan size – Minimum 150 mm, +/- 20mm diameter • Display - LCD • Power supply - 220 V+ 25% ,47 to 53 Hz AC power • Auto zero tare function • Removable stainless steel tray • Overload protection • Auto calibration facility <p>Warranty :2 years onsite</p>	1 No.
14	<p><u>Horizontal shaker</u></p> <ul style="list-style-type: none"> • Compact Bench top shaker with temperature control range from Ambient to 60°C • Temperature control accuracy $\pm 0.5^{\circ}\text{C}$ of set point • Speed 50-350 rpm with accuracy of ± 2 rpm • LED display for temperature and speed • Universal platform and clamps to hold flasks of various capacity • Automatic restart after power interruption • Thermostat cut off for over temperature protection • Noiseless operation • Operational voltage – 230V, 50 Hz • Quote for the price of CMC/AMC per year after the expiry of standard warranty • Compatible stabilizer • Should meet CSA/ UL/ CE standards • Display parameters: Temperature, speed and time • Suitable for various types of laboratory glassware <p>Warranty :2 years onsite Quote for the price of CMC/AMC per year after the expiry of warranty</p>	1 No.
15	<p><u>Lux meter</u></p> <p><u>Display:</u> 2000 count, Large LCD Display for easy reading Measuring Range: 20(1332A), 200, 2000, 20000, 200000 Lux 20, 200, 2000, 20000 Foot candles</p> <p><u>Sensor:</u> Silicon Photo diode and filter</p> <p><u>Accuracy:</u> $\pm 3\%$ (Calibrated to standard incandescent lamp 2856° K) 8% other visible light source(1332) 6% other visible light source(1332A)</p> <p>Warranty :2 years onsite</p>	1 No.
16	<p><u>Horizontal Glass Single water Distillation Unit</u></p> <p>Including Borosilicate Boiler, Borosilicate Condenser & Quartz Heater, Fluid Output- 1.5 l/hr, Minimum Cooling Water- 1 l/hr, voltage - 230-250 V, Conductivity- $< 3 \times 10^{-6}$ S/cm, power-1.5 kw</p> <p>Warranty :2 years onsite</p>	1 No.

17	<p><u>Vertical Autoclave</u> Portable Stainless steel Capacity: 30 litre Operating pressure -1.2 -2.1kg/cm² Pressure gauge with temperature read out Warranty :2 years onsite</p>	1 No.
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Terms & Conditions:

1. Tender form

The bidders may submit the tenders on their own papers.

2. **Earnest Money deposit:** EMD of Rs.4,500/-(Rupees Five Thousand Only) should be remitted by DD drawn in favour of The Associate Director of Research, Regional Agricultural Research Station, (Sothern Zone), Vellayani.P.O, Tvm – 695 522.
3. The sealed cover containing the tender document should be superscribed as “Tender for Supply of Laboratory Instruments” and addressed to the Associate Director of Research, Regional Agricultural Research Station, (Sothern Zone), TVM- 695 522,Vellayani. **The cover should also contain DD towards EMD and a priliminary agreement in Kerala Stamp paper worth Rs.200/- (Format attached).**
4. The sucessfull bidder should have to execute an agreement in Kerala stamp paper worth Rs.200/- (Rupees Two Hundred Only) and furnish a security deposit amounting to 5% of the order value in the form of DD drawn in favour of Associate Director of Research, Regional Agricultural Research Station, (Sothern Zone), Vellayani, Thiruvananthapuram Pin. 695 522, payable at the State Bank of India, Vellayani (IFSC: SBIN0070019), when directed from this office.
5. The rate quoted, tax and other charges if any should be seperatly stated.
6. The rate quoted should be valid for 60 days.
7. The Associate Director has the right to accept or reject any or all of the offers without assigning any reason.
8. The successful bidder should compleate the supply and installation of the item within 10 days from the date of receipt of supply order.
9. If any hartal/strike any unexpected holidays occurs on the date of opening of tender, the tender will be opened at the same time on the next working day.
10. All the rules and regulations applicable to Government tender will be applicable to this tender also.

Special Conditions

- Tender insisting payment in advance either full or part for supply and execution of the work are liable for rejection.
- Leaflets/Brochures containing technical features of the item quoted should be attached with the tender
- Payment will be made after satisfactory supply and installation of the equipments.
- Operation manual and guaranty cards for the equipment should be provided during supply.
- The supplier should attach their client list along with tender.
- Details of warranty offered should be clearly stated in the tender.
- The decision of the undersigned shall be final and binding.


23/2/22

Associate Director of Research