

## KERALA AGRICULTURAL UNIVERSITY

NO.RARS/SZ(7)/3531/17

R A R S(Southern Zone)  
College of Agriculture  
Vellayani, dtd. 08.03.2019  
Trivandrum - 695 522  
Telephone No:0471 2383239

### TENDER NOTICE

Sealed competitive tenders are invited for the supply of Refrigerated Centrifuge (specification attached).

Sl.No.	Name of equipment	Quantity	Specification	Total cost
1	Refrigerated Centrifuge	1	Specification attached	(.2%) of the quoted amount rounded the nearest multiple of Rs.100/- subjected to a minimum of Rs.400/- and maximum of Rs.1500/- +GST @18% extra.

Tender forms can be down loaded from the KAU Website ([www.kau.edu/tenders](http://www.kau.edu/tenders)). On submitting the tender form, cost of the tender form as mentioned above may be drawn by DD in favour of Associate Director of Research, RARS(SZ), College of Agriculture, Vellayani 695522 payable at SBI, Vellayani, Trivandrum should be enclosed.

**EMD @ 1%** of the quoted amount should be enclosed as separate DD drawn at the same address along with an agreement executed in Kerala Stamp paper worth Rs.200/- with the tender. **The name of the equipment for which the rate is quoted, notification number and date of opening of tender should be written on top of the envelope.** Sealed tenders addressed to the Associate Director of Research, RARS (SZ), College of Agriculture, Vellayani, T.V.P.M-695522 should reach this office on or before 2.00 p.m. on **23-03-2019**. Tenders received after the stipulated date and time will not be accepted under any circumstances. Tenders will be opened at 3.00 p.m. on **23-03-2019** in the presence of the tenderers or their authorized representatives.

All the terms and conditions prescribed for Govt. tenders as amended from time to time are applicable in this case also. The undersigned has the right to accept or reject any or all tenders without assigning any reason thereof.

Further details can be had from the office of RARS(SZ), College of Agriculture, Vellayani 695522 during office hours between 10.00 A.M. and 5.00 P.M. in Ph.No.0471-2383239 and also through KAU website ([www.kau.edu/tenders](http://www.kau.edu/tenders)).

Sd/-

**ASSOCIATE DIRECTOR OF RESEARCH**

To

Notice Board

Copy to:

Website([www.kau.edu/tenders](http://www.kau.edu/tenders))

Dr. Susha S.Thara., Asst. Prof.



**SECTION OFFICER**

### **Terms and conditions:**

- The refrigerated centrifuge should have a minimum of 3 year warranty from the date of complete installation and not from the date of delivery.
- The price for each item should be quoted separately.
- Items should be delivered to Department of Plant Pathology, College of Agriculture, Vellayani, Thiruvananthapuram.
- The products should be internationally branded.
- The firms or companies quoting the price should have service personals or centers in Kerala.
- The price quoted should be inclusive of all taxes, costs for clearance, transportations, loading and unloading etc.
- All Taxes, duty, freight etc as applicable may be specified in the tender.
- Rates quoted should be valid for a minimum period of 180 days from the date of opening the tender.
- Delivery: Within two weeks from the date of receipt of purchase order.
- The equipment should be delivered and installed at the Department of Plant Pathology, College of Agriculture, Vellayani at your own expenses and any packing, forwarding, freight, loading/unloading/handling or installation charges will have to be met by you.

### **Specifications**

#### **REFRIGERATED CENTRIFUGE:**

1. Compact centrifuge for maximum speed up to 16220 rpm, Relative Centrifugal force RCF: Max. 25000xg, RPM and RCF display, Temperature range from -11°C to +40°C, Should maintain 4°C at maximum speed, Fast Temp function for quick pre-cooling of the centrifuge (e.g., from ~ 23 °C to 4 °C in 11 minutes), ECO power shut-off engages after 8 hours of non-use, Built-in condensation drain to eliminate water accumulation in the rotor chamber, Quick acceleration (15s) and deceleration (16s), Centrifuge timer should start after the set rpm/rcf is reached, Centrifuge should have IVD conformity, Rotor for 48 x 1.5/2ml tubes with max speed 20800xg (14,000 rpm) and 12 x 5ml rotor with 20600g (14000 rpm), Extended rim to protect lids from

shearing off, Motorized lid latch, Brushless motor, Autoclavable rotors, Separate Short spin key, Short spin key with selectable rotational speed, Stand-by Cooling for maintaining temperature when not in use, Centrifuge capable for kit Rotor.

2. Temperature range of  $-11^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , which is modifiable during the run, Centrifuge must have a "fast cool" function, standby cooling and heating mode up to 8 hours, automatic temperature start up at a specific time to automatically pre-prepare temperature before centrifugation, Must be able to maintain  $4^{\circ}\text{C}$  at maximum speed, Maximum speed of 17,500 rpm, maximum rcf of 30,130g adjustable from 100 rpm upwards in an increment of 10 rpm up to 3000 rpm and in an increment of 100 rpm thereafter, Acceleration time to maximum speed must be less than 14s for all rotors at max load and a deceleration time of less than 15s with the standard 30 x 1.5/2 ml rotor, but should have option to accelerate and decelerate gently for sensitive samples using SOFT function, Timer for run can be set up to 99 minutes continuous, Must have "At set rpm" function enabling timer countdown to be started only when selected speed is achieved, digital display of time, speed and temperature, Programmable time and speed using jog dials, Must be able to store 50 routine procedures with 5 programmable buttons for frequently used programs in the first level, Able to switch display between rcf and rpm speed setting, Separate short spin key, Low noise levels less than 63 db at maximum speed, Brushless maintenance free drive, Automatic motorised locking when lid is almost closed, Must follow safety standards set by IEC 1010-2-020, Rotor should be made of anodised aluminium to ensure chemical resistance, Chamber must be of stainless steel material, Rotor must be autoclavable at  $121^{\circ}\text{C}$  for 20 min to completely eliminate any contaminating material, Aerosol tightness should be certified by external body, Automatic imbalance detection, Automatic rotor recognition, 2-point lid screwing for maximum security even at high speed centrifugation, Fixed angle rotor accommodating 6x 15/50 ml Falcon or blood collection tubes when sleeves and adapters are used (7, 830 rpm and 7, 745 x g), Optional rotor should be available for this Refrigerated centrifuge, 2 place swing-bucket rotor for MTP, PCR and deep-well plates spin 2204xg (4680 rpm) 30X 1.5/2.0 ml rotor with 14000 rpm and 20817g.

Sd/-

**ASSOCIATE DIRECTOR OF RESEARCH**