



CENTRE FOR BIODIVERSITY & TAXONOMY

DEPARTMENT OF BOTANY

UNIVERSITY OF KASHMIR

(NAAC Accredited grade "A")

Dr Anzar A. Khuroo
Senior Assistant Professor
NET, SET, M Phil, Ph D

No: FC Tender Notice/CBT/KU/17

Dated: 20-06-2017

Tender Notice

Sealed tenders affixed with revenue stamps worth Rs 5/= are invited from manufacturers/authorized dealers of the companies for the supply and installation of standard imported equipments (Gradient PCR, Refrigerated Tabletop Centrifuge, Ultra Low Freezer-vertical, Stereozoom Microscope) available under different research projects sanctioned to the undersigned. The tenders should reach to the office of the Centre for Biodiversity & Taxonomy, University of Kashmir, Srinagar -190006 by or before 6th July, 2017 on the terms and conditions provided in the detailed tender notice uploaded on the University website www.kashmiruniversity.net.

Dr Anzar A. Khuroo
(Principal Investigator)

Copy to:

1. PRO, University of Kashmir for publishing the invited tenders in one leading local daily for wide publicity.
2. Information technologist, IT & SS, for posting the notice inviting tenders on the University of Kashmir Website
3. File

Page 1

Address: Hazratbal, Srinagar, J & K, India - 190006

Phones (office): +91-0194-2420078, 2420405, 2421346, ext:2157;; Mobile: +919622666606; Webpage:

<http://taxonomy.uok.edu.in/Anzar.aspx>; Email: anzarak@gmail.com; anzarak@kashmiruniversity.ac.in



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Terms and conditions for the tender notice

1. The Technical and Price bids should be kept in separate envelopes.
2. A CDR worth Rs. 5000/= pledged in the name of Principal Investigator, Centre for Biodiversity and Taxonomy, University of Kashmir be enclosed with the tender.
3. The rates quoted should be inclusive of all taxes and supply should be FOR Centre for Biodiversity & Taxonomy, University of Kashmir, Srinagar, J & K.
4. The tenderer should have TIN number, latest VAT clearance certificate and should submit detailed catalogue of the equipments and an authorization letter from the principal manufacturer of the equipments along with the tender.
5. The supply has to be made within one month from the date of issuance of the supply order.
6. The successful bidders shall have to enter into an agreement with the Centre for Biodiversity and Taxonomy, University of Kashmir regarding post sale service and related matters on mutually acceptable terms and conditions.



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No: FC tender - notice JCBST/KO/17

Dated: 20-06-2017

Technical specifications for Gradient PCR

- Universal dual/single Block for 96 x 0.2ml PCR Tube, 60 x 0.5 ml PCR Tube, One 8x12 PCR plate
- Gradient PCR, capable of testing 12 different temperature simultaneously across a gradient range of 1-20deg C
- Gradient Technology ensures ramp rates are identical in both gradient and normal operation
- Heating and cooling via peltier technology.
- Should have Flexi-lid concept allowing use of all types of consumables with automatic height adjustment of lid.
- Triple Circuit Technology, ensures precise control of temperature Temperature control range: from 4 °C to 99°C
- Block Homogeneity: 20° C to 72° C: $\leq \pm 0.3^\circ \text{C}$, 95° C: $\leq \pm 0.4^\circ \text{C}$
- Temperature control speed: approx. 3 °C/s (heating) Temperature control speed: approx. 2 °C/s (cooling)
- Lid descent and closing pressure
- Administrator and user login with or without PIN for enhanced security Booking schedule allows users to reserve the instrument in advance
- Preprogrammed template for easy selection from 16 temperature protocols viz. 2 step PCR, 3 Step PCR, Gradient PCR, Long Range PCR, Low volume PCR, RT, RT-PCR, Incubation, Cycle sequencing, Touch down PCR, Hot Start PCR, Hot Start PCR manual, Large volume PCR, Nested cycles, reduced ramping, simulate Mastercycler.
- Time or Temperature increment with cycles in PCR program Adjustable ramp rate from 0.1° C to 3.0° C to meet critical amplification conditions
- Customized programming allows a maximum of 20 steps and 99 cycles
- Auto Restart facility with user defined time interval when power fails and resumes
- Instrument status indicates the step, cycle and remaining runtime during the run
- Runtime display shows remaining time in larger font for better view from distance System memory of more than 100
- User folders and more than 700 programs Two USB ports: for Protocol transfer, Self-test, USB, printer / mouse
- Log book function for error messages and new calibration
- E-mail Notification Power save Standby function
- Instrument should be European CE Certified.
- IQ, OQ and PQ should be provided at the time of installation.



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Senior Assistant Professor

NET, SET, M Phil, Ph D

No: FTender-notice/UST/KO/17

Dated: 20-06-2017

Technical specifications for Gradient PCR

- Universal dual/single Block for 96 x 0.2ml PCR Tube, 60 x 0.5 ml PCR Tube, One 8x12 PCR plate
- Gradient PCR, capable of testing 12 different temperature simultaneously across a gradient range of 1-20deg C
- Gradient Technology ensures ramp rates are identical in both gradient and normal operation
- Heating and cooling via peltier technology.
- Should have Flexi-lid concept allowing use of all types of consumables with automatic height adjustment of lid.
- Triple Circuit Technology, ensures precise control of temperature Temperature control range: from 4 °C to 99°C
- Block Homogeneity: 20° C to 72° C: $\leq \pm 0.3^\circ \text{C}$, 95° C: $\leq \pm 0.4^\circ \text{C}$
- Temperature control speed: approx. 3 °C/s (heating) Temperature control speed: approx. 2 °C/s (cooling)
- Lid descent and closing pressure
- Administrator and user login with or without PIN for enhanced security Booking schedule allows users to reserve the instrument in advance
- Preprogrammed template for easy selection from 16 temperature protocols viz. 2 step PCR, 3 Step PCR, Gradient PCR, Long Range PCR, Low volume PCR, RT, RT-PCR, Incubation, Cycle sequencing, Touch down PCR, Hot Start PCR, Hot Start PCR manual, Large volume PCR, Nested cycles, reduced ramping, simulate Mastercycler.
- Time or Temperature increment with cycles in PCR program Adjustable ramp rate from 0.1° C to 3.0° C to meet critical amplification conditions
- Customized programming allows a maximum of 20 steps and 99 cycles
- Auto Restart facility with user defined time interval when power fails and resumes
- Instrument status indicates the step, cycle and remaining runtime during the run
- Runtime display shows remaining time in larger font for better view from distance System memory of more than 100
- User folders and more than 700 programs Two USB ports: for Protocol transfer, Self-test, USB, printer / mouse
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No: Fl Tender - notice JCBT/KU/17

Dated: 20-06-2017

Technical specifications for Ultra Low Freezer (Vertical)

- CFC-free refrigeration
- Exterior: 18 gauge steel, 1.2mm thick. Powder coated.
- Interior: Top Quality, Polished 304L Stainless steel.
- internal capacity should be in the range of 400 or more liters.
- 5 compartments with four adjustable shelves.
- Insulation: Urethane insulation
- lowest attainable temperature of -80°C at the ambient temperature range of 32°C .
- Membrane keypad eye level control panel.
- Door Latch: Molded handle with built in removable lock.
- Battery back up: Activate alarms and displays during power outages time delay and temperature delay mode for second stage compressors.
- high-low cut protection facility for both compressors.
- microprocessor based functionality.
- minimum of 5 year warranty for compressor and refrigerant
- Alarm for power failure, high low temperature, battery low, filter clean and fault analysis.
- Alarm and temperature should be adjustable with in 1 degree increments.
- Inbuilt diagnostic software provides fault codes to trace and solve system error.
- On off switch and On off Alarm should be lockable
- 4 digit password for set point security
- Door Latch: Moulded handle with built in removable lock.
- Automatic Reset: Protect the microprocessor controller from failure caused by Power Spikes.
- Automatic returns alarm and set points to user –programmed level after power interrupted.
- Power consumption not more than 10.8kWh/day.
- Heat output should not more than 450W
- Noise level should be more than 59dB
- Pull down Time should not more than 5.6 hrs.
- Instrument Should be European CE and UL certified
- IQ, OQ and PQ documentation should be provided at the time of installation.

Page 4



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No: FC Tender- Notice Job 7/10/17

Dated: 20-06-2017

Technical specifications for REFRIGERATED TABLE TOP CENTRIFUGE

- Table top centrifuge for high volume applications
- Temp. range -9 to + 40 deg C
- Centrifuge should have a minimum capacity of 1Litter
- Short spin key
- Rotor imbalance indicator
- Fast cool option & stand by cooling
- Facility to put "at set rpm" function
- 10 acceleration & 10 breaking ramps
- Should have a 35 user-defined programs
- Ability to spin 15 ml and 50 ml falcon tubes and U-shaped bottom tubes at 11000 rpm
- Adaptor should be available for volumes from 1.5 ml to 85 ml in the Fixed angle rotor.
(Such as 2ml, 7ml, 15 ml, 18ml, 20ml, 30ml, 50ml)
- Swing-bucket rotors and adapters accommodate tubes and bottles from 0.2 mL to 250 mL.
- Ability to spin Plate rotor for centrifugation of all types of MTP, PCR, cell culture, or Deepwell Plates
- Power Consumption should not more than 1650W
- Noise level should not more than <58 dB
- Should have a built in condensation drain to avoid the corrosion of the Chamber.
- Centrifuge should be European CE certified.
- IQ, OQ and PQ should be provided at the time of installation

Required Rotors:

- 6x15/50ml tubes fixed angel metallic and autoclavable rotor with minimum 14400g/11000rpm
- 30x1.5/2ml metallic autoclaveable rotor with 20500g or more.

Page 5



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No:

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Dated:

20/06/2017

Technical Specifications for Stereozoom Microscope

Apochromatically corrected stereozoom microscope with 9:1 zoom ratio
Magnification range: 6.1 to 55x with 1x objective & 10x eyepiece
Max. Resolution: 500lp/mm with 2x objective & 10x eyepiece
2x objective having working distance of min. 35 mm
High object field diameter of 3.7cm or better at min. zoom step of 0.61 with 1x objective & 10x eyepiece
Fusion optics to achieve unrestricted high resolution and high depth at the same time.
High depth of field of 12mm
Total working distance of more than 120mm with 1x objective
Incident light base with black & white stage plate, Dim. (LxWxH) 277.5mm x 205mm x 22.5 mm
Coarse/fine focus drive with 300 mm or better column
Trinocular tube with viewing angle of 35 to 40degree, eyepieces 10x/23 (x2) having adjustable diopters and suitable for eyeglasses wearers and non-eyeglass wearers.
Illumination: Spotlight illumination with 2-arm Gooseneck with at-least 300 mm length, with 2 Hi-Power LEDs, control panel with separate gooseneck.
Camera: High definition 10MP Colour CMOS camera with memory card slot for direct image acquisition. HD Display can also be directly provided to TFT/LCD screen and also have provision to control through PC. Live display at full HD should be 27-30fps @ 1920x1080 or better.
Software: Microscope and Digital Camera Configuration and Control all fully integrated System, Auto and Manual Exposure adjustments to allow optimized imaging. It should control the camera features gain, binning, gamma, region of interest, Automatic recording of experimental parameters for reference or reloading for subsequent experiments, image viewer including annotations, image overlay, image gallery and image comparison, Adjust contrast, brightness and gamma on every image, Merge, crop and image arithmetic, Intensity, length and area measurements, Measurement of area intensities through image stacks, Online measurement.
Z-Image Builder to create an extended depth of field image while the microscope focus is being operated.
Automatic measurement of length, distance, area, perimeter, diameter and angles. All measurements should be displayed in an interactive table and can be exported to excel
Camera, Software and Microscope should be from same manufacturer.

Page 6

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