

UNIVERSITY OF KERALA
DEPARTMENT OF AQUATIC BIOLOGY & FISHERIES

Karyavattom, Thiruvananthapuram 695 581, Kerala, India
 Telefax: +91 471-2308131; +91 9447216157; Email: aquaticbiology@gmail.com

QUOTATION NOTICE

Sealed quotations are invited from the Original Equipment Manufacturers (OEM) or their authorized dealers for supply and installation of the various items for implementing the **Establishment of Molecular Systematics Lab** (No. Ad.AV.03/ 34514/2019) at the Department of Aquatic Biology and Fisheries, University of Kerala as per the specification mentioned here.

Last date and time of receipt of quotations: **30-12-2021; 04.00 PM**

Quotation may be addressed to: The Professor & Head, Department of Aquatic Biology and Fisheries, University of Kerala, Karyavattom, Thiruvananthapuram 695581

SL. No.	Item	Specifications	
1	GRADIENT PCR (One)	Lid Temperature range	37 - 110 °C
		Block Temperature Accuracy	: ± 0.2°C
		Block Homogeneity	≤ ±0.3° C (20°C to 72°C); ≤ ± 0.4° C (90°C)
		Heating rate	3 °C/s; Cooling rate: 2 °C/s
		Block temperature control	: range from be 4°C to 99°C
		Block	Single aluminum (96 x 0.1ml/0.2ml, 71 x 0.5 ml and 96 well PCR plate)
		Heating and cooling of block	: Peltier technology (with patented Triple Circuit Technology)
		Maximum power consumption	: 700 W
		Gradient temperature range	: 30 – 99°C with 0.1°C minimum gradient spread
		Gradient function	Should be able to test 12 different temperatures
		Customized programming	: Maximum of 20 steps in a cycle and 99 cycles
		Warranty	3 years
		Other features:	

SL. No.	Item	Specifications	
	Geldoc analyser (for viewing gels in Molecular biology Laboratory) (One)		
2	Geldoc analyser	Max. image area (W x H)	: 21 x 14 cm
		Detector	6.3 mp CMOS
		Pixel Size	2.4 x 2.4 um
		Bit depth (gray levels)	65,536
		Dynamic range	>3.5 orders of magnitude
		Excitation source	Trans-UV, Epi-white, Trans-white, Trans-blue
		Emission filter	535-645 nm
		Data output	16 bit or 8 bit: SCN, TIFF, JPEG image files
		Operating humidity	20-80% relative humidity (non-condensing)
		Warranty	3 years

SL. No.	Item	Specifications
3	Micropipette Set: One set (6 nos) of Micropipette set	
	4-digit display Volume- 0.1-2.5 ul, 0.5-10ul, 2-20 ul, 10-100ul, 20-200 ul, 100-1000ul Stand for pipettes Air displacement pipettes Can autoclaved without disassembled Tip ejection force of pipettes can be low as 3.6 N	

SL. No.	Item	Specifications
4	Gel Electrophoresis with One Powerpack	
	Length of Gel Tray: > 10 cm Width of Gel Tray: > 15 cm Distance to electrode: > 14.5 cm Output current: 300 V Display: 3 digit LED Operating conditions: 0-40oC, 0-95% humidity (non-condensing) Input protection: fuse on both hot and neutral Timer: 1-999 min, fully adjustable Output range: 10-300 V; 4-400 mA Pause/resume function: Yes Safety features: No-load detection, sudden load change detection, overload/short- Circuit detection; over voltage protection Output terminals: 4 pair recessed banana jacks in parallel	

SL. No.	Item	Specifications	
5	Refrigerated Centrifuge (One)	Max. RPM/RCF for Fixed Angle	Approx. 15,000 rpm / 22,000 x g
		Max. RPM/RCF for Swing-out	Approx. 5,000 rpm / 5,394 x g
		Max. Capacity for Fixed Angle	6 x 250 mL, 8 x 50 mL, 20 x 5.0 mL conical, 48 x 2.0 mL
		Max. Capacity for Swing-out	4 x 1,000 mL, 4 x 5 MTPs
		Temp. range (°C)	-11°C to 40°C
		Time control	Pulse, Timed < 10 hr or Continuous
		RCF/RPM conversion	YES
		ACC/DEC Ramps	9/10
		Program Memory	100 (3 Quick Program call button)
		Power Supply	220~230 V, 60/50 Hz (110 V optional)
		Power Requirement	2.0 KVA
		Rotor	Any Three (15, 50, 100, 250 and 1000 ml)
		Compressor	Built in or separate (preferred)
	Safety features	Rotor autoclavable (121° C for 20 min) Chamber made of stainless steel Automatic imbalance/rotor detection automatic motorized locking when lid almost closed	

SL. No.	Item	Specifications
6	-80 Freezer	
	<p>Type: Vertical; Capacity > 390 L Temperature range: Programmable temperature range from -50°C to -86°C Control: Micro Processor control of temperature and alarms Cascade Refrigeration: Hermetically-sealed two stage cascade system Insulation: Triple silicon section seal with ultra-thin vacuum insulation panel Chamber: Latch able inner door to minimize cold air loss Vacuum vent with plunger: Fitted with decompression valve facility & heated air vent Shelves: 5 internal doors and 5 adjustable Stainless-Steel Shelves Security: Password and Keyed locks on the outer doors Power: On-Off switch is located behind the locked panel Battery Backup: Activates alarms & display temperature with power failure Alarms: Audible and Visible alarms for Temperature filter clean, power out, Low Battery, System Fail, and Fault analysis.</p>	

	<p>Door seal: Inner door fitted with low temperature safe silicone seal Filter: Front mounted compressor filter Power consumption: Approx. 10.8 kWh/day Noise level: Approx. 55 dB Stability: “Voltage Boost-Buck” is needed Certification: UL, CE and CSA certified</p>
SL. No.	Item: UPS
7	<p>5KVA Online Double Conversion Pure, IGBT, Pure Sine wave ups with 10 Nos 150AH Tubular Batteries for 3 hours back up and suitable stand. WIRING REQUIREMENT: UPS Output wiring with casingcape 20mtrs with suitable gauge wire and 5AMS Socket with 5 Nos.</p>
SL. No.	Item: High-end Desktop Computer with voltage stabilizer
8	<p>Intel Corei9 10900 Pro Processor; Gigabyte Z490M UD3H Motherboard; 32GB RamDDR4 Corsair (x2); 1TB SSD m.2 Western digital ; Hard disk 4tb Seagate 7200rpm; Graphic Card Nvidia 3080; Cabinet Antec ; SMPS Coolermaster 900watts ;CPU Cooler Antec; HD LED computer monitor 27"(or more); Graphics drawing tablet; Keyboard & Mouse- high quality; UPS 1000vA:</p> <p>Software: Microsoft Windows 10 Professional 64Bit OEM / Windows 11; Microsoft Home and Student 2019 or above, One-Time Purchase - Lifetime Validity Adobe Photoshop, Adobe Illustrator, Adobe Lightroom, Corel PaintShop Pro 2020 Photoshop Alternative (Lifetime), CorelDRAW Essentials 2021 for Windows (Lifetime); Adobe Acrobat XI Professional Lifetime. Wondershare Filmora 10 Video Editor Lifetime Plan</p>
SL. No.	Item: Laboratory table with accessories
9	<p>Laboratory Island table with granite top FPSE-IT; Dimension: 3048 L x 1524w x 900 H mm (Specifications: Table top: 18 mm +/- 1mm Well Polished Black Granite with Half round nosing; Under Bench Cabinet: Various models available Including Corner Cabinets; 1.0 mm cold rolled steel and 0.08 mm epoxy resin powder coated Door: 1.0 mm cold rolled steel and 0.08 mm epoxy resin powder coated . Double Hinged doors assembled with SS-304 hinge assay. Steel door and drawer front will be of double wall construction with sound dampening material filled inside. Drawer tray: Will be of single piece construction. Drawer will be well supported on LH and RH ball slide suspension system; Handle: Lab dedicated stainless steel / PP material handles. Modular: Continuous Modular Cabinets.</p> <p>PP Sink with outlet nipple and PP waste out pipe -FP SE -PPS; Dimension: 560L x 300D x 240 H</p> <p>3 Way water flow faucet brass with epoxy powder coated FP SE-3WWF</p> <p>Reagent Rack with 5/16 amps electrical socket, switch assembly(2 nos) North west Brand with toughened glass shelves 2 Tires. Dimension: 600L x 300D x 750 H FP SE-RR</p>

SL. No.	Item: Air conditioner
10	Split AC with Twin Cool Inverter compressor (WiFi- preferred) Capacity: 2 Ton Energy Star Rating: 4 Star and above Warranty: 1 Year Comprehensive 5 years on PCB more than 5 years on Compressor on outdoor Casing Copper Condenser Coil with Anti Corrosion Technology; PM 2.5 Filter; Remote Access

Terms and Conditions

Terms and Conditions

1. The bidder should submit following documents along with bid:

- Detailed technical compliance of product quoted with cross reference
- Brochure and literature of the product quoted establishing its Brand, Make, Model and Technical Specifications
- List of addresses of Offices/Company's Service Centres
- Original Equipment Manufacturer (OEM) Certificate/ Undertaking. If the bidder is not an OEM, Certificate of authorized dealership/ distributorship from the OEM.
- Certificate from the OEM for technical support to the bidder and supply of spares.
- **Earnest Money Deposit (EMD): EMD calculated @ 1% of the Purchase Assessment Cost (PAC- excluding GST) should be paid by the firm.** The EMD should be remitted by way of Demand Draft drawn in favour of 'The Finance Officer, University of Kerala' payable at 'SBI, University Office Campus, Palayam' and to be submitted along with sealed quotations. The tenders without EMD or exemption certificate (if applicable) will be rejected.

2. Incomplete & conditional quotations received after the due date will be summarily rejected without assigning any reasons thereof

3. The Price/Rate quoted should be inclusive of all Taxes Freight, Packing & Forwarding Charges, Handling, Delivery Charges, installation charges etc.

4. The configuration given is the minimum configuration that is/are required. Vendors may choose to supply higher/better/ enhanced systems, but their financial quotes shall be treated as if they have been offered for the specified configuration only.

5. The bid shall be typed and shall be signed by the bidder or a person duly authorized to bind the bidder to the contract.

6. The bidder is expected to examine all instructions, forms, terms, condition, and technical specifications in the quotation Documents. Failure to furnish all information required by the quotation documents or submission of a bid not substantially responsive may result in the rejection of its bid.

7. The bidders shall give undertaking that all the Components used in the equipments shall be original make as per the technical specifications submitted and the hardware/software shall be

supplied with the authorized license certificates, if found contrary the supplier shall replace the component/equipment with original one at their own cost 8.

8. All prices should be in INR

9. Delivery and installation: Proposed delivery schedule should be mentioned clearly.

Delivery and installation should be made at the Department in Karyavattom campus without any extra cost. Complete installation, testing of the system and demonstration are to be provided at site.

11. Service facility: Supplier should mention their details of service setup and manpower in Kerala who are responsible for service and supply of AMC, if any.

12. In case of any dispute, the decision of the University authority shall be final and binding on the bidders. The undersigned reserves the right to reject any or all of the tenders received without assigning any reason thereof.

The quotations should be submitted in sealed over with title **“Quotation for the equipments for the “Establishment of Molecular Systematics Lab” at the Department of Aquatic Biology & Fisheries, University of Kerala”**



Dr A BIJU KUMAR

Dr. A. BIJU KUMAR
Professor & Head
Dept. of Aquatic Biology & Fisheries
University of Kerala
Thiruvananthapuram-695 581, India



Date: 04.12.2021