



UNIVERSITY OF KERALA
DEPARTMENT OF AQUATIC BIOLOGY & FISHERIES

Karyavattom, Thiruvananthapuram 695 581, Kerala, India
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QUOTATION NOTICE

Sealed quotations are invited from the Original Equipment Manufacturers (OEM) or their authorized dealers for supply and installation of the following equipments for implementing the **Innovative Project- Establishment of Aqua Clinic** (UO No. PlA1/35088/AQB/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: **24-08-2021; 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	Double Beam UV-Vis-Spectrophotometer (One)	Wavelength range	190 to 1,100 nm
		Spectral bandwidth	1 nm (190 to 1,100 nm)
		Wavelength display	0.1 nm increments
		Wavelength setting	0.1 nm increments
		Wavelength accuracy	± 0.1nm
		Wavelength repeatability	± 0.1 nm
		Wavelength scanning speed	3,000 to 2 nm/min
		Photometric system	Double beam optics
		Photometric range	Absorbance: -4 to 4 Abs
			Transmittance: 0% to 400%
		Photometric accuracy	± 0.002 Abs at 0.5 Abs
			± 0.004 Abs at 1.0 Abs
			± 0.006 Abs at 2.0 Abs
		Photometric repeatability	Less than ± 0.0002 Abs at 0.5 Abs
			Less than ± 0.0002 Abs at 1 Abs
			Less than ± 0.001 Abs at 2 Abs
Baseline flatness	Less than ± 0.0006 Abs (1,100 to 190 nm, one hour after light source turned ON)		
Noise level	Less than 0.00003 Abs (700 nm)		

		Light source	20-W halogen lamp and deuterium lamp Built-in light source auto position adjustment
		Monochromator	LO-RAY-LIGH grade blazed holographic grating in Czerny-Turner mounting
		Detector	Silicon photodiode
		Output device	USB memory can be inserted.
		Display	24-bit color touch screen
		Cuvette	pair (2 nos) of quartz cuvette will be supplied

SL. No.	Item	Specifications	
	Multiparameter water analyzer and COD Test tube heater (One each)		
2	Multiparameter water analyzer	Measurement Channels	Digital electrode channel
		Mode of measurement	Photometric method
		Display	128 x 64 pixel LCD
		Absorbance Range	0.000 to 4.000 Abs
		Absorbance Resolution	0.001 Abs
		Absorbance Accuracy	±0.003 Abs (at 1.000 Abs)
		Light Source	LED
		Bandpass Filter Bandwidth	8 nm
		Bandpass Filter Wavelength Accuracy	±1.0 nm
		Light Detector	Silicon photocell
		No of Cuvettes supplied	4 nos
		Battery Life	3.7 VDC Li-polymer rechargeable battery / >500 photometric measurements or 50 hours of continuous pH measurement
		Humidity	0 to 95% RH, non-condensing
		Output	USB-A host for flash drive; micro-USB-B for power and computer connectivity
		Power Supply	5 VDC USB 2.0 power adapter with USB-A to micro-USB-B cable
		Parameters to be measured (Fresh/Marine)	Alkalinity, Al, NH ₃ , Ca, Cl, COD, Cu, Hardness (Ca, Mg), Fe, NO ₂ , NO ₃ , DO, Ozone, pH, PO ₄ , P, Si, SO ₄ , Zn
	COD Test tube heater	Reaction Temperature	105 °C – 150°C
		Temperature stability	±0.5°C
		Temperature Range	-10°C – 160°C
		Accuracy	±2°C
		Block	Aluminium
		Capacity	25 vials
		Power supply	50 Hz, 250W

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

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.
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 - **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.**
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 implementing the Innovative Project- Establishment of Aqua Clinic at the Department of Aquatic Biology & Fisheries, University of Kerala”**



Dr A BIJU KUMAR

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



Date: 20.07.2021