



UNIVERSITY OF NORTH BENGAL

OFFICE OF THE REGISTRAR

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NOTICE

Sealed quotations are invited from interested vendors for instruments/equipment as per the specifications provided for the Fish Biology and Endocrinology Laboratory, Department of Zoology, NBU. Visit University of North Bengal website (www.nbu.ac.in) for details.

Advt.No. 164/R-2019, Dated: 13.12.2019

Registrar

NOTICE

Sealed quotations are invited from the interested vendors for supply and installation of instruments /equipment as per the specifications provided mentioning **Brand, Model No., Base Price, GST and Total Price separately** in the Fish Biology and Endocrinology Laboratory, Department of Zoology, University of North Bengal. **Quotation should be valid for 3 months.** Quotations must accompany GST and PAN photocopies, duly stamped and signed along with valid certificates. All documents must reach in sealed cover to the Dr. Sourav Mukherjee, PI of CSIR Project, Department of Zoology, University of North Bengal Pin-734013 on/or before **23.12.2019.**

Sd/-

Dr. Sourav Mukherjee, PI of CSIR Project
Department of Zoology, NBU

Quotation Notice

For the laboratory of Fish Biology and Endocrinology, Life Science Building, Room No. 202, Department of Zoology, NBU, seals quotations are invited from the interested vendors for following equipment with respective specifications and terms and conditions:

Item	Qty.	Description of Specification	Minimum Required Specification	Preferred Brand
Microplate Absorbance Reader	01	Wavelength range	400-750 nm	BIO RAD MODEL: 1681135
		Photometric method	Single or dual wavelength	
		Photometric range	0.0-3.5 OD	
		Band width	10 nm	
		Linearity	≤1.0% from 0.0-2.0 OD; ≤2.0% from 0.0-3.0 OD	
		Accuracy	±1.0% or 0.010 from 0.000-3.000 OD at 490 nm	
		Precision (Reproducibility)	1.0% or 0.005 OD from 0.0-2.0 OD; 1.5% from 2.0-3.0 OD	
		Resolution	0.001 OD	
		Light Source	Tungsten halogen lamp (20W), 3000 hr. average lifetime	
		Photodetectors	Silicon photodiodes: 8 measurement, 1 reference	
		Filter wheel capacity (Number of filters accommodated)	8 Wheel with 6 preinstalled filters	
		Preinstalled filters	415, 450, 490, 595, 655, and 750 nm filters	
		Data storage	Calendar/clock function, 64 assay protocols, data storage, analysis, and reports	
		Computer controlled	PC and Mac, format readings, analyze data, kinetic and single point	
		Data output	Onboard graphical thermal printer and USB2 interface with PC or Mac data stations	
		Printer	Built-in	
		Plate shaking	Three speed: low, mid, high; duration: 0-999 sec	
		Warm-up time	~3 min	
		Interchannel variation	≤1.0% or 0.005 from 0 to 3.0 OD	
		Plate type	96 well microplate; maximum plate height: 16 mm	
Read time	Fast mode: 6 secs at single wavelength, 10 secs at dual wavelengths Step mode: 15 secs at single wavelength, 25 secs at dual wavelengths			
Additional Specifications	<ul style="list-style-type: none"> • Flexible configurations with ability to read flat-, U-, or V-bottom microplates or 8- or 12-well strip plates. • Automatic calibration before each reading • Variable-speed plate-shaking capability • Easy-access 8-position filter wheel with 6 standard filters • USB2 port for external computer control • Data and protocol presentation on LCD display • Onboard data storage of protocols, standard curves, and graphs • Self-diagnostic capabilities to detect lamp burnout at startup • Motorized door for plate loading 			

		Software Specifications	<ul style="list-style-type: none"> • Microplate Manager Software 6 for High-Throughput Analysis and Reporting • Running of 12 separate assays on the same plate • Optional automatic printing upon completion of measurement • Multiple-plate processing with automated data export • Custom reporting function that provides one-button screening for predefined assays, such as for TSE Comprehensive Curve-Fit Analyses • Linear, quadratic, cubic, Log-Log, Zero-Intercept Linear, Semi-Log, Logit Log, Point to Point or logistic (4-parameter, 5-parameter) fit types • Linear or logarithmic automatic axis scaling • External standard curves for multiple plates • Curve-fit graph overlay for comparison • Performance verification parameters include: Accuracy, Precision, Linearity, Spectral blocking • Complex Kinetic Analyses: Choice of number of calculation points for Vmax, Simple velocity calculation, Negative or positive slope calculation, Absorbance limit selection, Kinetic correlation coefficient display and calculation for fit (r value), Real-time data acquisition display and ability to zoom in on a well, Automatic scaling and real-time monitoring 	
		Warranty on Machine Year(s)	≥1	
		Installation	Inclusive	
Electronic Weighing Balance	01	Capacity	~220g	SHIMADZU/ SARTORIUS
		Readability	1mg (0.001g.)	
		Minimum display	0.001g	
		Repeatability (standard deviation)	$\sigma \leq 0.001g$	
		Response time (approx.)	~ 1.0-1.2 sec	
		Ambient temperature	~5-40°C/ 41-104°F	
		Display	LCD	
		Power requirements	AC adapter; 90V-264V, -15%--+10%, 50/60Hz	
		Pan size	≥ 100×100 (mm)	
		Accessories	Windbreak, Protective in-use cover	
		Warranty Year(s)	≥1	
Laboratory pH Meter	01	Display	4 digit High Brightness LED	GLOBAL / K. ROY / HANNA INSTRUMENTS
		Range	0 to 14 pH / ±1999 mV	
		Resolution	0.01 pH / 1 mV	
		Accuracy	0.1% ± 1 digit	
		Temperature Compensation	0 to 100°C Manual	
		Warranty Year(s)	≥1	

(-22) °C Double Door Deep Freezer	01	Structure	<ul style="list-style-type: none"> Robust construction for heavy duty use, has lock and key system and recessed handle for durability. Heavy duty castor wheels at bottom of freezer. High density puff insulation for better holding time. 	BLUE STAR / VOLTAS
		Type	Horizontal	
		No. of Door (At top)	2	
		Capacity	≥ 284 liters	
		Item Volume	≥ 302 liters	
		Warranty	Atleast 1 year on product and ≥3 years on compressor	
Double door Refrigerator	01	Compressor type	Inverter Linear Compressor	LG / WHIRLPOOL
		No. of Door	2	
		Star Rating	≥ 3	
		Defrosting Type	Frost Free	
		Refrigerator type	Top Mount	
		Convertible Refrigerator	Yes	
		Door cooling	Yes	
		Gross Volume	~284 liters / ~308 liters	
		Storage Volume	~256 liters / ~280 liters	
		Toughened Glass	Yes	
		Build-in Stabilizer	Yes	
Warranty	Atleast 1 year on product and 10 years on compressor			
Micro centrifuge	01	Microprocessor controlled	Yes	REMI / EPPENDORF
		Maximum Speed RPM / RCF (g)	~15000 rpm / ~15596 g	
		Display	Large Backlit LCD display	
		Rotor Capacity	12 place closed rotor with metal safety lid	
		Speed / Time setting	500 to 15000 RPM / Min-Sec timer	
		Rotors and Adaptors	Need to be included in standard pack. 12 place x 1.5/2.0 ml microtubes, Reduction Adaptors for 0.2 ml microtubes, Reduction Adaptors for 0.4/0.5 ml microtubes PCR Strip Rotor (2 x 8 x 0.2 ml with metal safety lid)	
Warranty	≥1			
Tissue Culture Laminar Hood: Horizontal	01	Working space	3ft x 2ft x 2ft. Working table top covered with Stainless steel 304 grade sheet	NEO EQUIPMENT / ACCO
		Noise level	Below 65db.	
		Support stand with caster wheels	Yes	
		Air velocity	~100FPM	
		Outer	Made of thick Ply covered with white sunmica Powder coating	
		Inner area	Epoxy painted	
		Front door opera table	UV sterilized polycarbonate sheet with folding type	
		Filter	HEPA filter with particle retention of not more than 0.3micron	
		UV lamp & Fluorescent lamp	Yes	
Warranty	≥1			

Rotary Microtome	01	Feed Adjustment	1-50 microns (in steps of 1 micron each)	MEDI MEAS / WESWOX
		Opening of Object Clamp	~37x27 mm	
		Total Feed Excursion	~28 mm	
		Operation	Manual	
		Knife Length	120 mm	
		Block (Specimen) Holder	Set of Three	
		Knife Angle	0 to 100	
		Standard Accessories	<ul style="list-style-type: none"> • 120 mm razor both side wedged and with back and handle in case. • One object holder, three wheel tightening keys. • One dust cover and oil cane for lubrication. • Furnished in epoxy finished 	
		Special Features	<ul style="list-style-type: none"> • Ratchet wheel, cam and cam weight made of gun metal • Surface grinding on base, horizontal, vertical and inclined slide for smooth and accurate motion • Axel and catcher made from special steel made on imported machine 	
		Warranty	≥1	

N.B. - Any other specification or facility that the vendor would like to mention may be appended / added below the declared specifications.

Terms and Conditions:

- 1. Vendors have to mention the brand and model no. of the each quoted item.**
- 2. The vendors shall provide the GST and PAN photocopies, duly stamped and signed along with valid certificates.**
- 3. The vendor should specify the Base Price, % of GST, amount of GST and Total Price separately.**
- 4. Quotation should be valid for 3 months.**
- 5. Supply shall be done within 10 days after issuing the supply order.**

The University authority reserves the right to accept or reject any/all quotation(s) without assigning any reason and shall not be bound to accept the lowest quotation.