



WEST BENGAL STATE UNIVERSITY

Berunanpukuria, Malikapur Barasat
24 Parganas (North), Kolkata - 700 126

Phone : (033) 2524 1975 / 1976 / 1978 / 1979 Fax : (033) 2524 1977

Ref. No :

Date :

Sealed Quotations are invited as per the technical specifications for the following instruments (will be purchased from project fund)

Last date of submission: 08.10.2021, 5.00 pm
Opening of the quotations: 11.10.2021, 3.00 pm

1. Final selection will be done on the basis of both quality and indexed price.
2. Service of the instrument providers will be considered seriously.
3. Price of the instruments should be considered on the basis of DSIR recognized institute.
4. Package price will also be entertained.
5. Quotations must be addressed to The Registrar, West Bengal State University, Barasat, 24 PGS (N), Pin-700126 (with kind attention: Chiranjib Pal, Dept. of Zoology, WBSU)
6. Quotation should be submitted to Chiranjib Pal, Department of Zoology) must be super scribed "Project Instruments CP" at the top of the sealed envelopes.

Item No.	Technical Specification for the Instruments	Qt.
No. 1	<p><u>Fraction Collector (Foreign make)</u></p> <p><u>SPECIFICATIONS :</u></p> <ol style="list-style-type: none">1. The fraction collector should be capable of both analytical and preparative chromatography applications.2. The fraction should be capable of being used either stand-alone or as a part of a Protein Purification System.3. The fraction Collector should be capable of collecting fractions based on time, number of drops & volume.4. The fraction Collector should be capable of collection of peaks by peak detection, time windows (up to 20), or a combination of both.5. The fraction Collector should be capable of drop arm <u>movement mandatorily in an x, y motion over each collection vessel.</u>6. The fraction collector should allow multi-run feature that allows overlay of fractions.7. The dispenser arm should be manually adjustable to tube heights ≤ 150 mm.8. Should carry numerous off-the-shelf racks to accommodate tubes (12–20 mm diameter), Eppendorf or other microtubes (0.5, 1.5, or 2.0 ml), or scintillation vials.9. The fraction Collector should carry optional Ice Bath/Microplate Rack with tube grips that hold tubes firmly in any position; ice bath rack should allow cooling of 13 mm tubes or serves as a rack for micro plates	1

	<p>and tubes that adhere to SBS standards.</p> <p>10. The fraction Collector should carry optional microplate drophead kit for precise collection of small volumes into micro plates should be provided.</p> <p>11. Should be quoted with a 1 KVA Online UPS</p> <p>12. Warranty: 3 years from date of installation.</p> <p>13. Price must be inclusive of delivery up to West Bengal State University (DSIR certificate & documents will be provided by University.</p>	
No. 2	<p>HUMIDITY CHAMBER [Foreign make/Branded]</p> <p><u>SPECIFICATIONS:</u></p> <ol style="list-style-type: none"> 1. Precise monitoring of temperature and humidity conditions. 2. Temperature range 10°C to 60°C, Humidity range 40% to 95% RH. 3. Humidity range should be operated from 40% RH to 95% RH in variable ambient condition. 4. The temperature range and humidity range should be operated independently (eg, I may require 77% RH and +28 °C or 67% RH and +30 °C). 5. Unique design of thermal barrier for better energy efficiency. 6. Machine filled CFC free PUF insulation to eliminate void pockets. 7. Powerful fan motor for forced air circulation to maintain uniform conditions inside chamber. 8. Heating by long life SS tubular heaters. 9. Hermetically sealed Compressor with CFC free refrigerant. 10. Chamber calibration port on side. 11. 2 trays to accommodate sample case of 4 nos on each tray with Weight carrying capacity of each tray: 30 Kg Uniformly distributed and additional 2 trays required to keep other samples. 12. Output for remote alarm, Microprocessor controller with LCD display & capacitance type sensor, Intelligent Controller helps maintain temperature in case of sensor failure. 13. 4" attractive LCD display for direct display of humidity & temperature 14. Auto tuning of controller. 15. Settable High / low alarm points with date and time. 16. Centronic interface to record Temperature, Humidity, Date & Time by attaching Dot Matrix printer with Adjustable print interval. 17. Power failure and resumption recorded with date and time. 18. PC communication through RS-485 with data acquisition software. 19. High temperature safety cut off & alarms for high / lowset parameters . 20. Low water level alarm and power cutoff of boiler tank heater 21. Overload cut off relay for compressor. 22. Rounded inner chamber for easy cleaning, Attractive door profile. 23. Auto door Closer with Smart Handle with LED door Closure indication. 24. Chamber size : 660 mm , 655 mm , 850 mm internal and 800 mm , 1095 mm, 1420 mm external. 25. Chamber capacity 370 litres aprox. 	1

	<p>26. Battery Backup for Temperature Controller.</p> <p>27. Auto tuning of controller.</p> <p>28. Self-Diagnosis for errors.</p> <p>29. Histogram format of 24 hours temperature recording.</p> <p>30. Power failure and resumption recorded with date and time.</p> <p>31. Settable High / low alarm points.</p> <p>32. Memory for storage of upto 1000 records.</p> <p>33. Centronic interface to record Temperature, Date, & Time by attaching Dot Matrix printer with adjustable print interval.</p> <p>34. Alarm on equipment / output for remote alarm.</p> <p>35. Chamber illumination with the help of 8 Nos. of 3 watts fluorescent tubes.</p> <p>36. 2 nos. of 24 hours Cyclic Timer for regulating illumination conditions of all lights provided in accordance to natural environmental condition throughout the day.</p> <p>37. Validation protocol with IQ, OQ, PQ Documentation, with certification ISO 13,185:2016, ISO 9001:2015, WHO-GMP, relevant harmonized European standards: ISO 13485:2003, ISO 14971:2007, CE : EN104'1:2008, EN tSO 15223-1:2012, EN 60601-1 3rd Edition, BS EN 60601-1-2:20'15.</p> <p>38. Should be provided with 4 kva servo voltage stabilizer.</p> <p>39. Warranty: 5 years from date of installation.</p> <p>40. Price must be inclusive of delivery up to West Bengal State University (DSIR certificate & documents will be provided by University).</p>	
No. 3	<p>Stereo Zoom Trinocular/Binocular Microscope With Transmitted and Reflected Illumination System (Foreign Make):</p> <p><u>SPECIFICATIONS:</u></p> <ol style="list-style-type: none"> 1. Microscope body with ESD capability, 0.8-4X zoom optics, and 45, Greenough optical system. 2. Magnification range from 8× through 40× (using 10× eyepieces), with a zoom ratio of 5:1. 3. Transmitted and reflected light LED illuminator stand Corresponded to RoHS, WEEE regulations 4. Eyepiece 10 X without diopter adjustment in ESD capability. 5. Eyepiece 10X with ESD capability, F.N. 22, focusable. 6. Power Cord 7. 2 Years AMC after one year warranty period. 8. Price must be inclusive of delivery up to West Bengal State University (DSIR certificate & documents will be provided by University). 	

Chiranjib Pal
22/09/2021



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23/9/2021
Registrar (Officiating)
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