



# 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 : 05/12/2021

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

Last date of submission: 21.12.2021, 5.00 pm  
Opening of the quotations: 22.12.2021, 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><b><u>Gradient Thermal Cycler (Foreign make)</u></b></p> <p><b><u>SPECIFICATIONS :</u></b></p> <ol style="list-style-type: none"><li>1. Thermal block must accommodate 0.1ml PCR tubes (96 nos), 0.2ml PCR Tubes ( 96nos) &amp; 0.5 ml PCR Tubes (70 nos), 96 well PCR plate and strips</li><li>2. Gradient PCR, capable of testing atleast 12 different temperatures simultaneously across a gradient range of 1 - 20° C</li><li>3. System should have license for gradient application</li><li>4. Should be able to use dome and flat top PCR tube</li><li>5. Gradient technology should maintain identical ramp rate both in gradient and normal operation</li><li>6. Should be able to perform Gradient function in all three steps – Denaturation, Annealing and Elongation to optimize ultimate PCR Reaction</li><li>7. Temperature control range: from 4 °C to 99°C</li><li>8. Lid Temperature range: 37 – 110 °C</li><li>9. Block Temperature Accuracy should be : <math>\pm 0.2^{\circ}\text{C}</math> or better</li><li>10. Block Homogeneity: 20° C to 72° C: <math>\leq \pm 0.3^{\circ}\text{C}</math>, 95° C: <math>\leq \pm 0.4^{\circ}\text{C}</math> or better</li><li>11. Temperature control speed not less than 3 °C/s (heating)</li><li>12. Temperature control speed not less than. 2 °C/s (cooling)</li><li>13. Machine must be able to adjust the lagging time of reaction based on the</li></ol>	1

	<p>sample volume</p> <ol style="list-style-type: none"> <li>14. Lid should be flexible to adjust automatically (not manual setting) with the different PCR tube height.</li> <li>15. Block should keep temperature <math>\leq 20^{\circ}\text{C}</math> unless the lid reaches to its maximum set temperature.</li> <li>16. Intuitive graphic programming with larger display (not touch screen)</li> <li>17. Should have 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,</li> <li>18. Time or Temperature increment with cycles in PCR program</li> <li>19. Auto Restart facility with user defined time interval</li> <li>20. Instrument status should indicate the step, cycle and remaining runtime during the run</li> <li>21. Should have two USB ports: for Protocol transfer, Self-test, USB, printer / mouse</li> <li>22. Should have log book function for error messages and new calibration</li> <li>23. Should have e-mail notification for easier documentation</li> <li>24. Should have power save standby function</li> <li>25. Should have the block option for PCR in slides</li> <li>26. Should have facility of Self-test dongle to check functionality of all 6 pettier elements</li> <li>27. Calibration according to NIST (USA), DKD/PTB (Germany) UKAS/NPL (UK), UL/CUL listed.</li> </ol> <p>*Buy-Back offer (with Mastercycler Pro, Eppendorf) for this instrument with the same/updated category instrument/platform will be preferred.</p>	
No. 2	<p><b>Upright Solid Door Freezer <u>(Foreign make/Branded)</u></b></p> <p><b>Technical Specification:~</b></p> <ul style="list-style-type: none"> <li>• Capacity (litres): 344</li> <li>• Door : Solid</li> <li>• Dimension (Inches) WxDxH : 24x24x73</li> <li>• Temperature Range: <math>-16^{\circ}\text{C} \sim -25^{\circ}\text{C}</math></li> <li>• Wheels : Yes (Rear)</li> <li>• Lock : Yes</li> <li>• Defrost : Manual</li> <li>• Rated Load, Wattage: 180</li> <li>• No. of Baskets/Shelves : 8</li> <li>• No. of Lids/Doors : 1</li> <li>• Display : Digital</li> </ul>	1



*Chiranjib Pal*  
*05/12/2021*  
**Chiranjib Pal, Ph.D.**  
 Professor  
 Department of Zoology  
 West Bengal State University  
 Barasat, 24-ParganasN)  
 West Bengal, India

*Pranta*  
*7/12/2021*

**Registrar**  
 West Bengal State University  
 Berunanpukuria, Malikapur