

**BERHAMPUR UNIVERSITY**  
**SERB PROJECT, DST, GOVT. OF INDIA**  
**P.G. DEPARTMENT OF ZOOLOGY**

**BHANJA BIHAR, BERHAMPUR - 760007, ODISHA, INDIA**

*Dr. Jaya Kishor Seth Ph. D.*



Mobile: +91-9658887688

E-mail: jks.zool@buodisha.edu.in

**PRINCIPAL INVESTIGATOR**

Advertisement No.: 02 /SERB/DST/JKS/ZOOL/BU/2022

Date: 09/11/2022

**Tender Notice**

Sealed quotations are invited from qualified and registered suppliers for supply of Equipment for SERB Project, Govt. of India. The details are available with the **Principal Investigator, SERB Project, Govt. of India, Post Graduate Department of Zoology, Berhampur University, Odisha** and at [www.buodisha.edu.in](http://www.buodisha.edu.in). The last date of receiving tender/quotation is **30/11/2022 by 04:30 PM**.

*Jks Seth*  
*09/11/2022*

**Principal Investigator**

**Principal Investigator**  
**SERB Project, DST, Govt. of India**  
**P.G. Dept. of Zoology**  
**Berhampur University - 760007**

Copy to:

Memo No. 39/ SERB/DST/JKS/ZOOL/BU/2022

Date: 09/11/2022

- 1) **Secretary to Vice-Chancellor, Berhampur University, for information**
- 2) **P.A. to Registrar, Berhampur University, for information**
- 3) **Chairman, P. G. Council, Berhampur University for information**
- 4) **Comptroller of Finance, Berhampur University for information**
- 5) **Head, P.G. Dept. of Zoology, Berhampur University for information**
- 6) **Director, RCII, Berhampur University for information**
- 7) **Director, Campus Automation and Networking, Berhampur University for uploading the same in the BU website**

*Jks Seth*  
*09/11/2022*

**Principal Investigator**

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**SERB Project, DST, Govt. of India**  
**P.G. Dept. of Zoology**  
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**Tender Form**

**Principal Investigator,  
SERB PROJECT,  
POST GRADUTE DEPARTMENT OF ZOOLOGY  
BERHAMPUR UNIVERSITY  
BHANJA BIHAR, BERHAMPUR, GANJAM, ODISHA-760007**

Advertisement No.: 02/SERB/DST/JKS/ZOOL/BU/2022

Date: 09/11/2022

Last Date of Submission: 30/11/2022 by Time: 4:30 PM

**Terms and Conditions:**

1. The tenderer must be a Registered dealer under GST Act.
2. The tender must be clearly written or typed without any cancellation /correction/overwriting.
3. The Tender Form with terms and conditions must be submitted with seal and signature.
4. The rate should be quoted for the specified items only.
5. The tenderer should not quote any other specification, which differs from the specification given.
6. The rate should remain valid up to 31-03-2023.
7. The tenderer must be a manufacturer or direct agent /dealer of the manufacturer.
8. The rate should be for Berhampur University basis and inclusive of all Govt. Levies, taxes etc.
9. The rate should be inclusive of packing and forwarding charges, insurance and other incidental charges.
10. Prices quoted must be in Indian rupee only and in case of Foreign equipment the tenderer may quote in foreign currency.
11. In case of Foreign equipment, the address of principals/manufacturers and their Banker's details should be furnished. In case the bidder is an Indian agent of the foreign manufacturer, he has to submit authentic certificate of the manufacturer. Also the bidder has to take all responsibility to deliver & demonstrate the instrument at Berhampur University & the bidder has to quote accordingly.
12. Deliver period of each item should be mentioned. Ex-stock delivery will be preferred.
13. If the delivery is not made as per agreed terms and condition by the bidder, the purchaser will have the right to procure the goods from alternatives as he may think fit and can claim the difference in rates and all related expenses, if any from the bidder and in such a case the amount deposited as EMD will be forfeited.
14. The Registrar will be the final authority and his decision will be binding, in case of any dispute or complaint regarding the tender or purchase.
15. Cost of the Tender paper is Rs. 1,000/- (Rupees One Thousand Only) and EMD of Rs. 3,000/- (Rupees Three Thousand Only) should be deposited in shape of Bank draft drawn in favor of **Principal Investigator, SERB Project, Govt. of India, P. G. Department of Zoology, Berhampur University, Pin-760007 payable at CANARA BANK, Berhampur University Campus, (IFSC Code: CNRB0006371)** or any other bank otherwise the tender will not be accepted.
16. The EMD of successful bidder will be returned only after the supply and satisfactory installation of the items.

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17. The payment will be released on bill basis after receipt of consignment in good condition & satisfactory installation, commissioning, training hereof (wherever required).
18. All disputes pertaining to this tender are subject to exclusive jurisdiction of competent court in Berhampur /Odisha High Court only.
19. Details of onsite warranty, agency that shall maintain warranty & under take AMC/comprehensive Services contract beyond warranty shall be given in the offer. In case of Foreign quote, the Indian agent who shall remain warranty & AMC beyond warranty shall be given in the offer. Name, address, contact person, phone/E-mail etc. of such firm may also be indicated clearly.
20. The items should be supplied with manuals including technical drawings to operate the system without any problem.
21. The supply of spare parts is to be guaranteed at least for a period of 10 years after supply of the equipment.
22. Indicate the names of the customer where similar equipment was supplied and may attach the satisfactory performance report.
23. The tenderer has to state in details the Electrical power/UPS/stabilizer requirements, room foundation needed and also to state whether Air Conditioned environment is needed to house the system etc. & to run the tests i.e. pre-installation facilities required for installation in the offer.
24. The form must submit Xerox copy of valid GST clearance certificate otherwise the tender will not be accepted.
25. The tenderer is required to furnish the permanent Account Number (PAN) allotted by the Income Tax Department.
26. The tenderer must submit an authentic certificate from the manufacturer indicating that it is a manufacturing firm or an authorized dealer/ direct agent of the manufacturer. In case of indigenous instrument, the authorization certificate should be issued by the manufacturer in favor of the dealer addressed to the **Principal Investigator, SERB Project, Govt. of India, P. G. Department of Zoology, Berhampur University.**
27. Attach xerox copies of previous record of execution of orders.
28. The tenderer has to give undertaking for providing After Sales Service (Within 72 hours of receiving the complaint).
29. Tender form incomplete in any respect is liable for rejection.
30. The Registrar, Berhampur University reserves all the rights to accept or reject any/all tender in full or in part without assigning any reason.

I have read the terms and conditions of the tender mentioned above and agree to abide by the same.

Date: Signature of tenderer

(With seal)

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**Equipment Specification**

Sl. No.	Name of the instruments with specification and approximate cost
1	<p><b>Stereo Zoom Microscope with Camera and Monitor</b>  <b>Specification:</b></p> <ul style="list-style-type: none"> <li>• Optical System, Lead free: 10 degree Greenough using best corrected central part of the objective; complete apochromatically corrected microscope system</li> <li>• Zoom: 9:1, apochromatic</li> <li>• Viewing angle: 35 degree</li> <li>• Specific Surface resistivity: <math>2 \times 10^{11} \Omega/\text{Square}</math>, discharge time &lt;2 seconds from 1000 v to 100v</li> <li>• Magnification range (basic outfit): 6.1 x-55x</li> <li>• Maximum resolution: 500 lp/mm</li> <li>• Maximum numerical aperture: 0.167</li> <li>• Working distance (basic outfit): 122 mm</li> <li>• Object field diameter: 37.7 mm</li> <li>• Adjustable zoom limits: Click-stops 10x, 20x, 30x, 40x, and 50x</li> <li>• Video/ photo outlet, switchable: 50 % video, 50 % visual, permanent</li> <li>• Integrated camera: 10 MP resolution</li> <li>• Live image up to 35 fps (1,024 x 768 pixels)</li> <li>• Sensor size: 6.44 mmx 4.6 mm, 1/2.3" CMOS</li> <li>• Pixel size: 1.67 um x 1.67 um.</li> <li>• Standard objectives, lead-free: Apochromats 0.63x, 1.6x, 2.0x; Apochromats 0.5x, 0.63x, 0.75x, 1.6x, 2.0x</li> <li>• Ergonomic eyepieces: Fixed and adjustable, with cups: 10x/23, 16x/16, 20x/12</li> <li>• Ergonomic eyepieces for eyeglass wearers adjustable, with eyecups: 10x/23, 16x/15, 25x/9.5, 40x/6</li> <li>• Interpupillary distance: 50-76 mm.</li> <li>• <b>Warrantee: 3 years</b></li> </ul>
2	<p><b>Refrigerated Micro Centrifuge</b>  <b>Specification:</b></p> <ul style="list-style-type: none"> <li>• Compact &amp; Refrigerated 18 place micro centrifuge with digital display and Aerosol tight rotor.</li> <li>• Noticeably quite, even without rotor lid.</li> <li>• Capacity: 18 nos 1.5/2ml tubes and Microtainer.</li> <li>• Max. 16,873 x g (14,000 rpm) with 100 rpm increments</li> <li>• Temperature ranges from 0°C to +40 °C</li> <li>• Should maintain 4 °C at maximum speed.</li> <li>• Must have Fast temperature function for rapid precooling of the centrifuge.</li> <li>• Stand by cooling maintain temp when centrifuge not in use.</li> <li>• Built-in condensation drain to eliminate condensed water from the chamber which prevents corrosion.</li> <li>• Small foot print &amp; low operation height (approx. 23cm).</li> <li>• Speed display in both rpm/ rcf.</li> <li>• Separate short spin button for quick spins.</li> <li>• Acceleration time to max rpm: 11sec.</li> <li>• Braking time from max. rpm: 12sec.</li> <li>• Timer: 30 sec to 99 min, with continuous mode.</li> <li>• Noise level: 47 dB(A).</li> <li>• Must follow safety standards set by IEC 1010-2-020, IVD compliance.</li> <li>• Aerosol tightness should be certified by external body such as the Centre for Applied Microbiology and Research, Porton Down, UK.</li> <li>• Power requirement: max 320W.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Dimention: 30x46x25 cm.</li> <li>• Rotor: Rotor should be Autoclavable, Aerosol tight rotor with 18 x 1.5ml/2ml tubes.</li> <li>• Optional Adaptor for 0.5ml &amp; 0.2 ml tubes.</li> <li>• <b>Warranty- 3 Year</b></li> </ul>
3	<p><b>Thermal Cycler</b>  <b>Specification:</b></p> <ul style="list-style-type: none"> <li>• Sample Capacity: The system to be capable to use 96 well PCR plates/8 x 12 PCR Strips /96 x 0.2ml tubes.</li> <li>• Sample Volumes: The system should support volumes ranging from 10-100 ul/ tube.</li> <li>• Thermal Optimizations: The System to have 6 separate Peltier blocks to provide precise control over the temperature that is set for the PCR Optimization. Run upto six separate temperatures in one run to determine optimal annealing temperature. The system should maintain thermal characteristics between optimization and isothermal condition to eliminate further optimizations.</li> <li>• Each Peltier block to accommodate 16 wells and having the ability to set up PCR with a specific temperature differential of up to 30 °C.</li> <li>• Programmable Heat Lid: Heated lid should be programmable between 50 to 105°C to perform oil free PCR.</li> <li>• Ramp Rate: Instrument should have max. Block ramp rate of 6.0°C and Max. Sample ramp rate of 4.4°C (Normal).</li> <li>• The thermal cycler should have programmable ramp rate. The system to support Block Temperature Range starting from 0°C -100°C.</li> <li>• The system to have a             <ul style="list-style-type: none"> <li>• Temperature Accuracy +0.25 °C at 35°C-99.9°C.</li> <li>• Temperature Uniformity &lt;0.5°C 30 Sec's after reaching 95°C.</li> </ul> </li> <li>• Programming: The system to have in built 6.5-inch VGA 32K colour with touch screen programming panel, allowing for easy intuitive graphical user interface. The instrument to support Mouse or stylus free programming &amp; navigation capability.</li> <li>• On board Tm calculator facility to approximate the optimal             <ul style="list-style-type: none"> <li>• Annealing temperature.</li> </ul> </li> <li>• Memory: The system to have provision to&gt; 1000 Protocol in the instrument.</li> <li>• <b>Warranty- 3 Year</b></li> </ul>
4	<p><b>Refrigerator (-20 degree):</b>  <b>Specification:</b>            Capacity 200 litres, Temperature upto -20°C with LED Display (with Voltage Stabilizer VS-02).  <b>Warranty- 3 Year</b></p>
5	<p><b>Qubit Fluorometer</b>  <b>Specification:</b></p> <ul style="list-style-type: none"> <li>• It should be an analytical instrument for DNA, RNA, and protein quantification with a small benchtop footprint and 5.7" touchscreen intuitive user interface.</li> <li>• Instrument should use as little as 1 uL of sample.</li> <li>• Instrument should have a sensitivity range for dsDNA of 0.5 ng/MI (10% CV).</li> <li>• Instrument should have Dynamic ranget (dsDNA) of 0.5 ng/mL to 5 Hg/mL.</li> <li>• Instrument should be able to accurately measure both DNA and RNA in the same sample.</li> <li>• It should be able to accurately quantify DNA in samples with concentrations as low as 10 pg/uL.</li> <li>• It should be able to cover a sample concentration range of 10 pg/uL to I ug/uL DNA.</li> <li>• It should have reagent calculator that quickly generates working solution calculations.</li> <li>• It should be able to measure intact vs degraded RNA in 4-5 seconds' sample read time.</li> <li>• Instrument should be able to provide on board RNA IQ-Integrity and Quality values.</li> <li>• It should be able accurately and selectively quantifies DNA, RNA or protein in &lt;3 Seconds per sample.</li> </ul>

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- It should be able to store up to 1,000 sample results with 4GB space and should be Upgradable to have Wifi in future.
  - Instrument should not require external computer for data analysis
  - It should come up with Blue and Red LED as light sources with excitation and emission.
- Filters as below  
Excitation: Blue 430-495 nm, Red 600-645 nm  
Emission: Green 510-580 nm, Red 665-720 nm  
Warranty- 3 Year

*J. K. Seth*  
*09/11/2022*  
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