



# TAMRALIPTA MAHAVIDYALAYA

[Estd.-1948]

NAAC Accredited 'A' Grade College

DST-FIST &amp; DBT Boost Recipient College

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Tamluk • Dist.: Purba Medinipur • Pin : 721636 • West Bengal

Ref. No. 151/2021

Date 14.9.2021

Tamralipta Mahavidyalaya is inviting sealed quotations from registered suppliers with authorization certificate from manufacturer, GST registration certificate, and current trade license and current IT returns for supplying the following items as per specifications given below including GST within **27<sup>th</sup> September, 2021** to email id: **tamralipta\_mahavidyalaya@yahoo.co.in**. Also, suppliers should submit bidder compliance on their own letter head.

Items & Specifications	Quantity
<p><b>A. Stereo Zoom Trinocular Microscope</b></p> <ol style="list-style-type: none"><li>1. Universal infinity corrected system with <b>Parallel light path (Galilean optics)</b> for future up gradation for <b>dual view, drawing tube or Co-axial Fluorescence application</b> Greenough optical path will not be accepted anyway.</li><li>2. Base microscope zoom 7:1 or higher with total Magnification range of 7x to 56x or higher by using only 1x objective and 10x eyepieces. Horizontal zoom drive, 10 step zoom magnification indication. Click stop for each zoom magnification.</li><li>3. Knob rotation tension adjustment focusing stroke 120 mm</li><li>4. <b>Plan Apochromatic</b> 1X objective. With NA 0.10 or higher, WD 81 mm or higher. Normal plan Achromatic lenses will not be accepted anyway.</li><li>5. Widefieldtrinocular head inclined at 30° angle with pair of eyepiece:10x (Field no. 22 or better). Light path selector: 2 steps (Binocular 100%, Photo 100%). Inter papillary distance 50-76 mm or better.</li><li>6. Microscope stand with inbuilt transmitted and reflected hi intensity LED light source having separate independent light intensity regulator for transmitted and reflected light. Incident angle of the transmitted LED should be possible to be changed and adjusted as per requirement. At least 100 mm dia glass working area in the microscope base. A black and white stage plate should be provided.</li><li>7. 3.1 Megapixel colour CCD/CMOS camera, ½ inch sensor, Pixel size 3.2 µm x 3.2 µm, speed 10fps @ full resolution, Max resolution 2048 x 1532 or higher, binning, 2x, 3x, 4x, real time ICC colour profile, USB connectivity, should be comparable with windows 10/8/7 (32 and 64 bit both).</li></ol>	01(one)



<p>8. Advanced image analysis software having measurement, calibration brightness, contrast setting, exposure, snap shot, time lapse, merge channel etc.</p> <p>9. Microscope, camera and software should be from the same manufacturer for best compatibility and after sales service support.</p> <p>10. Microscope should be strictly as per Japanese/German standard &amp; have European CE/BSI/TUV etc. certification</p> <p>11. The Microscope should be upgradable to <b>dual view discussion tube/ drawing tube &amp; Co-axial Fluorescence</b> light having 4 or more position slider/ turret for filter cubes and 100w/130w mercury source in future.</p>	
<p><b>B. Cyclic Voltammetry</b></p> <p><b>1. System Specification</b></p> <ul style="list-style-type: none"> <li>• 2, 3 and 4 electrode configuration</li> <li>• Maximum potential: <math>\pm 10</math> V or better</li> <li>• Maximum current: <math>\pm 250</math>mA or Better</li> <li>• Compliance voltage: <math>\pm 12</math> V or better</li> <li>• Galvanostat applied current range: 10pA - 250 mA or better</li> <li>• Applied potential resolution: 150 <math>\mu</math>V or better</li> <li>• Applied current resolution: 0.03% of current range</li> <li>• Reference electrode input impedance: <math>\geq 1</math> TO</li> <li>• Reference electrode input bias current: <math>\leq 10</math> pA</li> <li>• Measured current resolution: 0.0015% of current range</li> <li>• Potentiostat rise time: <math>&lt; 1</math> <math>\mu</math>s or better</li> <li>• Scan Rate: 10 <math>\mu</math>V/s to 10,000 V/s or better</li> </ul> <p><b>2. Techniques</b></p> <ul style="list-style-type: none"> <li>• Cyclic Voltammetry</li> <li>• Linear Sweep Voltammetry</li> <li>• Differential Pulse Voltammetry</li> <li>• Normal Pulse Voltametry</li> <li>• Open Circuit Potential - Time (OCPT)</li> <li>• CV simulation and fitting program</li> </ul> <p><b>3. Electrochemical Cell System &amp; Accessories</b></p> <ul style="list-style-type: none"> <li>• Cell includes 4 glass cells with one cell top &amp; Cell stand</li> <li>• Pt working electrode – 1no</li> <li>• Ag/AgCl reference (aq) – 1no</li> <li>• Pt wire counter electrode – 1no</li> </ul> <p><b>4. Software:</b> Licensed and full version of software for all the functions and procedures mentioned above.</p> <p><b>5. Up gradation of software:</b> Digisim Simulation software needs to provide. Up gradation of software should be made as and whenever required</p> <p><b>6. Photovoltaic studies</b> Software provision for measurement of I-V measurements, I max, Pmax, Fill factor etc</p> <p><b>7. Warranty: 3 Years</b></p>	<p>01(one)</p>



### 8. Upgradable option

- There should be a provision that In future the system will use in Photo electrochemistry Setup in future.
- System should be upgradable to Bi-potentiostat in future

## C. Networking

### 1. Branded Commercial Garde Desktop Computer (HP/DELL/Lenovo only)

Processor	Intel Core i3-10100 (4C / 8T, 3.6 / 4.3GHz, 6MB)
Graphics	Integrated Intel UHD Graphics 630
Chipset	Intel B460
Memory	1x 4GB UDIMM DDR4-2666
Memory Slots	Two DDR4 UDIMM slots, dual-channel capable
Max Memory	Up to 32GB DDR4-2666
Storage	512GB SSD
Storage Support	Up to two drives, 1x 3.5" HDD + 1x M.2 SSD <ul style="list-style-type: none"><li>• 3.5" HDD up to 2TB</li><li>• M.2 SSD up to 1TB</li></ul>
Audio Chip	High Definition (HD) Audio, Realtek ALC623-CG codec
Speakers	2Wx1
Power Supply	180W 85%
Keyboard	USB Traditional Keyboard, Black, English (IN)
Mouse	USB Mouse, Black
Expansion Slots	One PCIe 3.0 x1 One PCIe 3.0 x16 Two M.2 slots (one for WLAN, one for SSD)
Ethernet	Integrated 100/1000M
Front Ports	1x microphone (3.5mm) 1x headphone / microphone combo jack (3.5mm) 4x USB 3.2 Gen 1
Rear Ports	1x DisplayPort 1.4 1x HDMI-out 1.4 4x USB 2.0 1x serial (9-pin) 1x line-out (3.5mm) 1x VGA 1x Ethernet (RJ-45)
Monitor	18.5 inch Monitor
Security Chip	Firmware TPM 2.0 integrated in chipset
Green Certifications	RoHS compliant
Other Certifications	TÜV Rheinland Low Noise
Operating System	Windows 10
Physical Lock Option	Padlock Loop / Kensington Security Slot
Case Color	Black
Form Factor	Tower (13.6L)
Warranty	3Yrs Onsite

15(Fifteen)



**2. Branded Commercial Garde Desktop Computer with Server  
(HP/DELL/IBM/Lenovo only)**

Processor	Intel Core i7-10700 (8C / 16T, 2.9 / 4.8GHz, 16MB)
Integrated Graphics	Intel UHD Graphics 630
Chipset	Intel W480
Memory	1x 8GB UDIMM DDR4-2933 non-ECC
Memory Slots	Four DDR4 UDIMM slots, dual-channel capable
Max Memory	Up to 128GB DDR4-2933
M.2 SSD RAID Controller	Onboard Intel RSTePCIe
HDD Controller	Onboard Intel RST SATA RAID
Internal Disk Drive	1x 512 GB SSD + 1x 1TB HDD 7200rpm 3.5" SATA6Gb/s
Storage Support	Up to 2x 3.5" SATA HDD / 4x 2.5" SATA HDD / SSD + 4x M.2 PCIe SSD <ul style="list-style-type: none"> <li>• 3.5" HDD up to 4TB each</li> <li>• 2.5" SATA HDD up to 1TB each</li> <li>• 2.5" SATA SSD up to 1TB each</li> <li>• M.2 PCIe SSD up to 2TB each</li> <li>• Optional Intel Optane Memory</li> </ul>
Audio Chip	High Definition (HD) Audio, Realtek ALC623 codec
Power Supply	500W Platinum Fixed
Keyboard	USB Traditional Keyboard, Black, English
Mouse	USB Mouse
Expansion Slots	One PCIe 3.0 x16 One PCIe 3.0 x16 (x4 lanes) One PCIe 3.0 x1
M.2 Slots	Up to 4x M.2 SSD: <ul style="list-style-type: none"> <li>• 2 via onboard slots</li> <li>• 2 via Single M.2 to PCIe adapter</li> </ul>
Bays	1x 3.5" disk bay (standard)
Onboard Ethernet	1x GbE RJ-45
Front Ports	1x microphone (3.5mm) 1x headphone / microphone combo jack (3.5mm) 2x USB 3.2 Gen 1 1x USB-C 3.2 Gen 1 2x USB 3.2 Gen 2
Rear Ports	1x serial (9-pin) 1x line-out (3.5mm) 1x Ethernet (RJ-45) 2x USB 3.2 Gen 1 2x DisplayPort 2x USB 2.0
Operating System	DOS
Monitor	18.5 inch Monitor
Security Chip	Discrete TPM 2.0, TCG certified
Physical Lock Option	Padlock Loop/ Kensington Security Slot
System Management	Intel vPro with AMT 14, DASH
Green Certifications	ENERGY STAR 8.0 EPEAT Silver RoHS compliant
Warranty	3Yrs Onsite

**1 (One)**



3. Networking Set-up:		1 (One)
Microsoft Windows Server 2019 Licence		
Microsoft CAL License		
Networking facility for 1+15 computers with D-Link CAT-6 cable, IO Box and patch cable		
Netgear Switch cum Router		
Network Rack		
4. UPS:		17 (Seventeen)
600 VA UPS	(APC / BPE / I-Ball)	
Warranty	1 Yrs Onsite	



*[Signature]*  
11.09.21

Dr. Abdul Motin

Principal

Tamralipta Mahavidyalaya

**Principal**

**Tamralipta Mahavidyalaya**

**Tamluk, Purba Medinipur**