


Product Specification


#	Product name	QTY
	Histopathology	
Code	Item Description	Qty
H1	Slide Filing Cabinet	1
H2	Nikon E400 Dual Viewing Side-By-Side Teaching Microscope	1
	Microbiology	
M1	Microbiology Incubator	1
M2	CO2 Incubator/ Tri gas incubator	1
M3	Hotplate Magnetic Stirrer	1
M4	Centrifuge (microbiology and clinical pathology)	2
M5	Hot Air Oven	1
M6	Autoclave	1
M7	Olympus CX43 microscope (for 3 sections)	3
M8	Analytical weighing balance	1
	Clinical Pathology	
C1	Urine osmometer	1
C2	SQA vision sperm analyzer (automatic semen analyzer)	1
	Haematology	
HM1	Kubota Centrifuge 4000 (haematology and biochemistry)	2
	Infectious Serology	
IS1	Mini incubator	1
IS2	Rotator	1
IS3	Microfuge	1
IS4	Multi-tube Vortex mixer	1
	Biochemistry	
B1	Vortex mixer	1
	Blood Bank	
BBK1	Analytical weighing balance	1
	Grand total	

H1

Requirement and Use of the product	Product Picture
<p>Product name: Slide Filing Cabinet with block storage</p> <p>STACKABLE BLOCK AND SLIDE STORAGE CABINET</p> <p><i>A proper storage cabinet is needed to organize and arrange the blocks and slides processed in histopathology. Currently, these items are stored in boxes in an unorganized manner. As a result, locating a specific block or slide can be time-consuming, requiring searching through numerous boxes</i></p>	


General Specifications	Technical Specification	Features
<p>Max Dimensions (Maximum): (HxWxD):1700x500x600 mm</p>		<p>- More than 16000 blocks and 100,000 Slide capacity</p>

H2


Requirement and Use of the product	Product Picture
<p>Product name: Nikon E400 Dual Viewing Side-By-Side Teaching Microscope</p> <p>Currently, there is only one such microscope in the lab. With numerous slides to read, having an additional microscope would expedite the work. Furthermore, having a backup microscope would be beneficial in case of damage to the primary one.</p>	

General Specifications	Technical Specification	Features
<p>One-year mechanical warranty</p> <p>Aftersales support mandatory</p> <ul style="list-style-type: none"> • Installation report (IQ) 	<p>Nose piece: 5 positions</p> <p>Objectives: 4x, 10x, 20x, 40x,100x</p> <p>Eyepiece: 10X</p> <p>Swing out condenser</p> <p>Nikon E400 Dual Viewing Side-By-Side Teaching Microscope Right hand stage</p>	<p>Trinocular head with camera port</p> <p>2 binocular heads</p>

M1


Requirement and Use of the product		Product Picture
Product name: Microbiology Incubator		
Brand:		
<i>Incubators are utilized in the microbiology section to incubate culture plates. Currently, there is only one incubator that has been in use for over two decades, indicating a need for an upgrade. Additionally, the increasing number of samples necessitates more space to accommodate the additional cultures .</i>		
General Specifications	Technical Specification	Features
Capacity: 150-200L Max Dimensions (L x W x H): 750 x 700 x 1000 mm) Temperature Range (Metric): Ambient +5-7°C to 100°C Operating Voltage: 220 V to 240 V Voltage: 230 V Extended warranty Certified Training: Application and Biomedical All Service and application related documents to be provided After sales support is mandatory Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report	 Control System: Micro controller-based temperature indicator cum controller with Digital display and PT 100 sensor. Alarm: Audio Visual Alarm if the temperature deviates from the preset temperature Heating System: Air Circulation: Motor and blower arrangement to have uniformity of Temperature under Loaded condition. Lighting: Interior illumination for working area. Observation Door: Inside see through unbreakable door	 Material: Should be non-corrosive, easy to clean Automatic over- and under-temperature alarm Internal glass door available to allow sample viewing without impacting temperature Lockable door Double walled construction, inner chamber stainless steel. Inside full-length observation glass/transparent door. Facility for adjustable shelves to convenient heights, minimum 2 removable shelves of stainless steel/anodized aluminum to be supplied.

M2

Requirement and Use of the product	Product Picture
<p>Product name: CO₂ / Trigas incubator</p> <p>Brand:</p> <p><i>Incubators are essential for incubating culture plates in the microbiology section. Currently, we have a CO₂ incubator, but it is not functioning. Since certain organisms require CO₂ for growth, a working CO₂ incubator is necessary. We are currently using the existing CO₂ incubator as a standard incubator due to our inability to connect it to the CO₂ cylinder. Additionally, the handle of the incubator has been repeatedly repaired but remains in poor condition. .</i></p>	


General Specifications	Technical Specification	Features
<p>Capacity: 150-200L</p> <p>Temperature Range (Metric): Ambient +5°C to 60°C</p> <p>Relative Humidity: <90% at 37°C</p> <p>Electrical Requirements: 220-240 V</p> <p>Humidity Source: Integrated water reservoir</p> <p>Voltage: 220-240 V</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>CO₂ Concentration Range: 0 to 20%</p> <p>Multi Gas Supply (N₂ & O₂)</p> <p>Temp. Control Method: Direct Heat and Air Jacket</p> <p>Temp. Control Sensor: Pt100</p> <p>Temp. Range: Ambient +5°C to 60°C</p> <p>Temp. Accuracy: ≤±0.1</p> <p>Recovery Time: ≤7 mins (After 30 sec. Door Opening)</p> <p>Humidity Range (%RH): ≥85%±3%</p>	<p>Material: Should be non-corrosive, easy to clean</p> <p>Automatic over- and under-temperature alarm</p> <p>Internal glass door available to allow sample viewing without impacting temperature</p> <p>Buzzer to alarm low or high deviation of CO₂, Temperature.</p> <p>Lockable door</p> <p>Facility for adjustable shelves to convenient heights, Minimum 2 removable shelves of stainless steel/anodized aluminum to be supplied. Facility for adjustable shelves to convenient heights.</p>

M3

Requirement and Use of the product	Product Picture
<p>Product name: Hotplate Magnetic Stirrer</p> <p>Brand:</p> <p><i>This equipment is used for media preparation, automating the warming and mixing process that would otherwise need to be done manually. Unfortunately, our current equipment is not fully functional; specifically, the stirrer is not working. Additionally, we are limited to making only one media at a time due to the single-stirrer setup, which consumes significant time and effort for the individual preparing the media</i></p>	


General Specifications	Technical Specification	Features
<p>Controls (Digital/Analog): Digital</p> <p>Multiposition: If available yes</p> <p>Min Speed (RPM): 150</p> <p>Max Speed (RPM): 1500</p> <p>Stirrer temperature: should go up to 350°C</p> <p>Stirring positions: 2-4</p> <p>Max Stirring Quantity/Capacity (L): 5-10L</p> <p>Max Temp Range (°C): 300</p> <p>Max Dimensions (WxHxD): 700mm x 350mm x 750mm</p> <p>Extended warranty</p> <p>After sales support is mandatory</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Safety LED indicates hot surface</p> <p>Control actual temperature.</p> <p>Excellent heat conduction distributes the heat evenly and uniformity over the entire heating surface.</p> <p>Pilot lamp indicates when heat is on.</p> <p>Special radiation shields keep apparatus relatively cool during continuous operation.</p> <p>Designed for continuous use, to handle fluids of varying viscosities.</p> <p>Powerful magnetic coupling for stirring up to 5L of water</p>	<p>Reliable and easy to use.</p> <p>Chemical resistant top plate, easy to clean.</p> <p>Top plate choices in ceramic or aluminum.</p>

M4

Requirement and Use of the product	Product Picture
<p>Product name: Centrifuge</p> <p><i>Laboratory centrifuges are instrumental in separating and isolating various components of a sample according to their density, size, and other physical properties. Currently, we lack a functioning centrifuge in the microbiology section, as the one previously used was damaged beyond repair by biomed. Consequently, microbiology is sharing a centrifuge with another section, resulting in delays and additional effort, and posing a risk of contamination between the sections.</i></p>	


General Specifications	Technical Specification	Features
<p>Capacity: 100ML-250ML</p> <p>Electrical Requirement: 200/240V 60Hz</p> <p>Maximum Dimensions (LxWxH): 550mm x 450mm x 400mm</p> <p>Extended warranty</p> <p>Certified Training: Biomedical training and technical training if required</p> <p>All Service and application related documents to be provided</p> <p>After sales support is mandatory</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Speed Maximum: 5000 RPM</p> <p>Speed minimum: 1000 RPM</p> <p>Rotar type: Swing out Rotar (Minimum 6x95ml)</p> <p>Duration: 1 Second to 99 Minutes</p>	<p>Should be programmable</p> <p>Should have lid locking feature</p> <p>Lid dropping protection</p> <p>Imbalance shut off</p>

M5


Requirement and Use of the product	Product Picture
<p>Product name: Hot Air Oven</p> <p><i>A hot air oven is essential for drying culture plates. Currently, we rely on an incubator that has been in use for over two decades and requires upgrading. Unfortunately, the incubator lacks temperature control settings, rendering it unable to regulate temperature effectively. Additionally, its bulk size and old design occupy a significant amount of space, which is scarce in our lab</i></p>	

General Specifications	Technical Specification	Features
<p>Capacity: 100L-150L</p> <p>Electrical Requirement: 208/240V 60Hz</p> <p>Maximum Dimensions (LxWxH): 750mm x 900mm x 750mm</p> <p>Extended warranty</p> <p>Certified Training: Biomedical training and technical training if required</p> <p>All Service and application related documents to be provided</p> <p>After sales support is mandatory</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Temp. Range: Ambient +7 to +15 Degree to 200 Degree/300 Degree/400 Degree</p> <p>Application: Gentle drying of heat-sensitive materials, Fast drying, Residue-free drying of intricately</p>	<p>Faster drying, since liquids evaporate at lower temperatures.</p> <ul style="list-style-type: none"> . uniform temperature on all shelves. - Should be provided with an air circulating fan. -Should provide a variable microprocessor based digital temperature controller with digital display. -Should have stainless steel trays chambers with holes. -Should provide with air ventilation


M6

<p>Requirement and Use of the product</p> <p>Product name: Autoclave</p> <p><i>We only have one autoclave in the lab, which is used for autoclaving all the media for culturing. The current autoclave is old and in poor condition, with issues concerning the lid. If the autoclave were to stop working, we would be unable to continue with microbiology cultures, as there is no alternative means of sterilizing media in the lab.</i></p>	<p>Product Picture</p> 	
<p>General Specifications</p> <p>Applicable to medical and health services, scientific research, medical equipment, glassware, solution culture medium to carry out sterilization,</p> <p>Independent quick service window, easy for repairing and maintenance.</p> <p>Capacity 50L-75L</p> <p>AFTER SALES SERVICE:</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>- Working temperature of sterilizer is 121-134 Deg. C and the corresponding pressure is 1.2-2.1 kg/cm2.</p> <ul style="list-style-type: none">* Over-temperature automatic protection device.* Over-pressure protection measures.* Door safety detection device.* Over-current and leakage safety protection.* Water shortage protection device.	<p>Features</p> <p>The sterilizer shall be fitted with suitable PLC (Microprocessor) for fully automatic cycle operation instead of manual operating valve with following Features:</p> <ul style="list-style-type: none">(i) PLC based microprocessor which is incorporated with the sterilizer.(ii) Digital displays of Chamber Pressure, temperature, cycle no., Batch no., Time & date, alarm indicator, Low water indicator.(iii) Provision of ‘error code analysis’ inbuilt, Leak test, Bowie & Dick and Standard Process. <p>stainless steel bucket and tray</p> <p>All connecting pipes shall be made of good quality stainless steel.</p>


M7

<p>Requirement and Use of the product</p> <p>Product name: Biological Microscope</p> <p>Brand: Olympus Microscope CX43 Standard (Preferred)</p> <p><i>The Olympus Microscope is preferred for its global reputation as a compact, energy-saving, and user-friendly microscope brand. In our microbiology laboratory, we have two microscopes. Unfortunately, one is damaged and out of commission. Given our status as a teaching institute, using a single microscope for both teaching and work is impractical and causes delays. Moreover, with only one microscope available, any damage to it would halt all microscopy work</i></p>		<p>Product Picture</p> 
<p>General Specifications</p> <p>Should be equipped to handle a range of techniques, including phase contrast, darkfield and simple epifluorescence</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>Objectives: 4x, 10x, 20x, 40x oil Phase Contrast</p> <p>Stage: mechanical fixed stage, 211 x 154mm with slide holder 76 x 52mm, Vernier scale</p> <p>Focusing knobs: Coarse and fine</p> <p>Main power: 100-250V</p> <p>Illumination: 2-2.5 W with intensity control</p>	<p>Features</p> <p>Single-Handed Sample Placement</p> <p>Smooth Magnification Change</p>

M8


<p>Requirement and Use of the product</p> <p>Product name: Analytical Balance</p> <p>Brand:</p> <p><i>We need a scale for weighing media to prepare culture plates and other chemicals that require precise measurements. Unfortunately, our current scale is damaged and does not zero properly. Since accurate measurements are essential, the faulty scale may produce incorrect results despite careful measurements by our lab technicians. Therefore, we require a new one.</i></p>		<p>Product Picture</p> 
<p>General Specifications</p> <p>Capacity: 0.1g to 150g Max weighing Pan Diameter: 100 mm Max dimensions (DxHxW): 300 mm x 360 mm x 200 mm (± 10mm difference will be accepted) Power: AC Power supply and battery operation Linearity ±0.5 mg</p> <p>Extended warranty After sales support is mandatory</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>-Reliable results -Compact and Convenient</p>	<p>Features</p> <p>Should be battery operable</p>

C1

Requirement and Use of the product	Product Picture
<p>Product name: Urine osmometer</p> <p><i>Urine osmolality is a critical parameter analyzed in clinical pathology. Historically, this parameter has been reported through calculation methods. However, the gold standard method for osmolality determination is freezing point determination. This method is recommended and requested by our doctors, but we are unable to implement it due to the lack of an osmometer</i></p>	

General Specifications	Technical Specification	Features
<p>Supported languages: English</p> <p>Storage temperature: -40 °C to +45 °C (-40 °F to +113 °F)</p> <p>Specimen type: Urine and serum</p> <p>Electrical voltage 100 to 240 VAC (50/60 Hz)</p> <p>Power consumption 60 Watts</p> <p>Extended warranty</p> <p>Certified Training: Biomedical training and technical training if required</p> <p>Documentation: Provide DQ, IQ, OQ, PQ documents with Material Test Certificates and Calibration report</p>	<p>Sample capacity: Single sample OR 0- 20 sample</p> <p>Unit: mOsm/kg H₂O</p> <p>Resolution: 1 mOsm/kg H₂O</p> <p>Range: 0 to 2000 mOsm/kg H₂O</p> <p>Accuracy: 20 to 400 mOsm/kg</p> <p>Precision: 2 (within run) 0 to 400 mOsm/kg H₂O:</p> <p>standard deviation ≤ 3 mOsm/kg H₂O</p> <p>Minimum 3-point calibration</p> <p>Method: freezing point determination</p>	<p>Communication On-bord printer, Integrated barcode Scanner, USB 2.0</p> <p>Ethernet port (1) and Bidirectional interface</p>

C2

Requirement and Use of the product	Product Picture
<p>Product name: Automatic Semen Analyzer</p> <p>Brand: <u>SQA-Vision MES (Recommended)</u></p> <p>At present semen analysis is done manually. Automation will reduce manual errors and give results faster and more</p> <p><i>The SQA-Vision is an analytical medical device designed to perform a comprehensive quantitative evaluation of semen quality and parameters in less than 2 minutes. This high-performance analyzer integrates electro-optics technology, computer algorithms, and video microscopy to deliver quick, precise, and accurate automated semen analysis. Its implementation enhances reporting accuracy and reduces turnaround times, a critical factor in the field of fertility. Manually processing a single sample typically takes between 30 minutes to an hour. With an average of 8-10 samples received daily, automation significantly alleviates workload pressures.</i></p>	


General Specifications	Technical Specification	Features
<p>Dimensions: maximum 45 X 40 X 30 cm AC power supply: 100-240 VAC, 50-60 Hz, 20 VA Archive Capacity: up to 500 test records / 750 QC records</p> <p>Extended warranty Certified Training: Biomedical training and technical training if required All Service and application related documents to be provided After sales support is mandatory UPS inbuilt or provision available. Birrational interfacing available</p> <p>Documentation: Provide DQ, IQ, OQ, PQ documents with Material Test Certificates and Calibration report</p>	<p>Uses WHO 5th edition testing criteria or higher Specificity Concentration: 85% Motility: 80% Normal Morphology (WHO 5th): 65% Post vasectomy: 95% of motile cells detected Sensitivity Concentration: 90% Motility: 85% Normal Morphology (WHO 5th): 85% Correlation to Manual Method Concentration: 0.9 % Motility: 0.85 % Normal Morphology (WHO 5th): 0.65</p>	<p>Features</p> <p>Import patient and control data from the SQA-V</p> <p>Save patients test results with video clips or still images attached</p> <p>Save, view and graph patient and control test results</p> <p>View real time semen samples from the SQA-V on a PC screen</p> <p>Normal ranges for testing parameters can be set by the user</p>

HM1

Requirement and Use of the product	Product Picture
<p>Product name: Centrifuge</p> <p><i>Laboratory centrifuges are crucial for separating and isolating various components of a sample based on their density, size, and other physical properties. However, the current centrifuge in the hematology department has a software issue, causing continuous errors. Each time we need to use it, we must switch the centrifuge off and on, leading to damage to the power button. Despite attempts by the biomed department to repair it, the button remains in poor condition and may become irreparable over time</i></p>	

General Specifications	Technical Specification	Features
<p>Capacity: 100ML-500ML</p> <p>Electrical Requirement:200/240V 60Hz</p> <p>Maximum Dimensions (LxDxH): 550mm x 450mm x 400mm</p> <p>Extended warranty</p> <p>Certified Training: Biomedical training and technical training if required</p> <p>All Service and application related documents to be provided</p> <p>After sales support is mandatory</p> <ul style="list-style-type: none"> IQ, OQ, Calibration report 	<p>Speed Maximum: 5000 RPM</p> <p>Speed mum: 4000 RPM</p> <p>Rotar type: Swing out Rotar (Minimum 4x24x7/5ml)</p> <p>Duration: 1 Second to 99 Minutes</p>	<p>Should be programmable</p> <p>Should have lid locking feature</p> <p>Lid dropping protection</p> <p>Imbalance shut off</p>

IS1

<p>Requirement and Use of the product</p> <p>Product name: MINI INCUBATOR</p> <p>Brand: -</p> <p><i>The current incubator is out of order and needs to be replaced. Currently, we are sharing a microbiology incubator since we do not have one available for infectious serology</i></p>	<p>Product Picture</p> 
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<p>General Specifications</p> <p>Dimensions: maximum (outside W x L x H) 350 x 490 x 450 mm</p> <p>Weight: Less than 50 Kgs</p> <p>Extended warranty After sales support is mandatory</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>Temperature range (minimum): 5-40 °C</p> <p>Electrical requirements: 100/250V</p>	<p>Features</p> <p>Should include an additional shelf</p>
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IS2

<p>Requirement and Use of the product</p> <p>Product name: ROTATOR</p> <p><i>We currently lack a rotator, so we are manually rotating the slides for testing. This process consumes time and energy for the technologist and lacks uniformity. By using a rotator, we would achieve consistent rotation for a fixed duration, thereby enhancing the quality of testing.</i></p>	<p>Product Picture</p> 
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<p>General Specifications</p> <p>Voltage: maximum 240V</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>Speed Range: 50-200 RPM (minimum)</p> <p>Time setting range: 0-15 minutes (minimum)</p>	<p>Features</p> <p>Hot Top indicator: hot surface warning to prevent burns!</p> <p>Digital error code display</p> <p>Elevated control panel for protection against leaking liquids</p>
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IS3

Requirement and Use of the product	Product Picture
<p>Product name: MICROFUGE</p> <p><i>We do not have a microfuge currently and sharing with PCR lab.</i></p>	


General Specifications	Technical Specification	Features
<p>Dimensions : (D x W x H) : 390mm x 300mm x 300mm (maximum)</p> <p>Power:: AC100V-240V</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Should reach maximum speed of 10,000rpm</p> <p>Rotar capacity: 0.2mL/0.5mL/1.5mL/2mL×12</p> <p>Run time: 30sec to 99 min/ continuous</p> <p>Driving Motor: Brushless DC motor</p>	<p>Over-speed detection</p>

IS4

<p>Requirement and Use of the product</p> <p>Product name: Multi tube vortex</p> <p><i>We do not currently have one, so we are sharing with the one in TLA.</i></p>	<p>Product Picture</p> 
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<p>General Specifications</p> <p>Dimensions: (Max in mm) 160 x 180 x 190</p> <p>Tubes which can be used: 1.5ml, 2.0ml,</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>Speed: 200 to 2500 rpm</p>	<p>Features</p> <p>Operation modes: Touch and continuous</p>
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B1

Requirement and Use of the product	Product Picture
<p>Product name: VORTEX MIXER</p> <p><i>There is no vortex mixer in biochemistry, which is necessary to homogenize the samples. Currently, we are doing this manually</i></p>	

General Specifications	Technical Specification	Features
<p>Height: maximum: 200mm Lenth (Maximum): 130mm Voltage: maximum 230V</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Speed: 200 to 2500RPM (minimum)</p>	<p>With suction feet for stabilization</p>

BBK1

<p>Requirement and Use of the product</p> <p>Product name: Analytical Balance</p> <p>Brand:</p> <p><i>For weighing media to prepare culture plates and other chemicals that require precise measurements, currently, the measurements are taken from the main lab, and the reagents are prepared in the blood bank</i></p>	<p>Product Picture</p> 
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<p>General Specifications</p> <p>Capacity: 0.1g to 150g Max weighing Pan Diameter: 100 mm Max dimensions (DxHxW): 300 mm x 360 mm x 200 mm (± 10mm difference will be accepted) Power: AC Power supply and battery operation Linearity ±0.5 mg</p> <p>Extended warranty After sales support is mandatory</p> <p>Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report</p>	<p>Technical Specification</p> <p>-Reliable results -Compact and Convenient</p>	<p>Features</p> <p>Should be battery operable</p>
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