Product Specification Sheet Department of Laboratory Medicine 2024

#	Description	QTY
	Histopathology	
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	1
M5	Hot Air Oven	1
M6	Autoclave	1
M7	Olympus CX43 microscope	1
M8	Analytical weighing balance	1
	Clinical Pathology	
C1	Centrifuge	1
C2	Urine osmometer	1
C3	Olympus CX43 microscope	1
C4	SQA vision sperm analyzer (automatic semen analyzer)	1
	Haematology	
HM1	Olympus CX43 microscope	1
HM2	Kubota Centrifuge 4000	1
	Infectious Serology	
IS1	Mini incubator	1
IS2	Rotator	1
IS3	Microfuge	1
IS4	Multi-tube Vortex mixer	1
	Biochemistry	
B1	Vortex mixer	1
B2	Centrifuge	1
	Blood Bank	
BBK1	Analytical weighing balance	1

Histopathology

H1

Requirement and Use of the product

Product name: Slide Filing Cabinet

STACKABLE BLOCK AND SLIDE STORAGE CABINET

A proper storing cabinet that organizes and arranges the blocks and slides processed at histopathology.

Currently there is no such arrangement for storing blocks and slides.



General Specifications	Technical Specification	Features
Max Dimensions (Maximum): (HxWxD):1600x500x600 mm		- More than 500 blocks and 5000 Slide capacity

H2

Product name: Nikon E400 Dual Viewing Side-By-Side Teaching

Microscope



General Specifications	Technical Specification	Features
One-year mechanical warranty	Nose piece: 5 positions	Trinocular head with camera port
Aftersales support mandatory	Objectives: 4x, 10x, 20x, 40x,100x Evepiece: 10X	2 binocular heads
 Installation report (IQ) 	, ,	
	Swing out condenser	
	Nikon E400 Dual Viewing Side-By-Side Teaching	
	Microscope Right hand stage	

MICROBIOLOGY

Requirement and Use of the product

Product name: Microbiology Incubator

Brand:

Incubators are used to incubate culture plates in the microbiology section

At present there is one incubator which has been used for more than two decades, hence an upgrade is required.

Product Picture



General Specifications

Capacity: 150-200L

Max Dimensions (L x W x H): 750 x

650 x 950 mm)

Temperature Range (Metric):

Ambient +5°C to 105°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

documents to be provided
After sales support is mandatory

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

Control System: Micro controller-based temperature indicator cum controller with Digital display and PT 100 sensor.

Memory: 500 Records

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

Features

Material: Should be non-corrosive, easy to clean

Automatic over- and under-temperature

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

Facility for adjustable shelves to convenient heights, 4-5 removable shelves of stainless steel/anodized aluminum to be supplied.

Requirement and Use of the product

Product name: CO₂ / Trigas incubator

Brand:

Incubators are used to incubate culture plates in the microbiology section.

At present there is a CO2 incubator, however it is not in working condition. Since some organisms require CO2 for growth a CO2 incubator is needed.

Product Picture



General Specifications

Capacity: 150-200L

Temperature Range (Metric):

Ambient +3°C to 55°C

Relative Humidity: <90% at 37°C Electrical Requirements: 100-150 V Humidity Source: Integrated water

reservoir

Voltage: 100-150 V

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

CO2 Concentration Range: 0 to 20%

Multi Gas Supply (N2 & O2)

Temp. Control Method: Direct Heat and

Air Jacket

Temp. Control Sensor: Pt100

Temp. Range: Ambient +3°C to 55°C

Temp. Accuracy: <±0.1

Recovery Time: ≤7 mins (After 30 sec.

Door Opening)

Humidity Range (%RH): ≥95%±3%

Features

Material: Should be non-corrosive, easy to clean

Automatic over- and under-temperature

Internal glass door available to allow sample viewing without impacting

temperature

Buzzer to a larm low or high deviation of CO2, $\,$

Temperature.

Lockable door

Facility for adjustable shelves to convenient heights, 4-5 removable shelves of stainless steel/anodized aluminum to be supplied. Facility for adjustable shelves to convenient heights, 4-5 removable shelves of stainless steel/anodized aluminum to be supplied.

Requirement and Use of the product

Product name: Hotplate Magnetic Stirrer

Brand:

Used for media preparation where the solution is warmed and mixed automatically which has to be done manually if the equipment is not available. The current equipment is not fully functional (stirrer not working)



General Specifications

Controls (Digital/Analog): Digital Multiposition: If available yes Min Speed (RPM): 150 Max Speed (RPM): 1500

Stirrer temperature: should go up to

350°C

Stirring positions: 2-4

Max Stirring Quantity/Capacity

(L): 15L

Min Temp Range (°C): 5 Max Temp Range (°C): 400

Max Dimensions (WxHxD): 400mm x

350mm x 80mm

Extended warranty
After sales support is mandatory

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

Safety LED indicates hot surface Control actual temperature.

Excellent heat conduction distributes the heat evenly and uniformity over the

entire heating surface.

Pilot lamp indicates when heat is on. Special radiation shields keep apparatus relatively cool during continuous

operation.

Designed for continuous use, to handle

fluids of varying viscosities.

Powerful magnetic coupling for stirring up to 5L of water

Features

Reliable and easy to use.

Chemical resistant top plate, easy to clean. Top plate choices in ceramic or aluminum.

Requirement and Use of the product

Product name: Centrifuge

Laboratory centrifuges are used to separate and isolate different components of a sample based on their density, size, and other physical properties. The current centrifuge we have is more than 10 years old.

Product Picture

	fications

Capacity: 100L-150L

Electrical Requirenment:200/240V

60Hz

Maximum Dimensions (LxWxH): 250mm x 200mm x 200mm

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

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration

report

Technical Specification

Speed Maximum: 5000 RPM

Speed minimum: 1000 RPM

Rotar type: Swing out Rotar

(Minimum 6x95ml)

Duration: 1 Second to 99 Minutes

Features

Should be programmable

Should have lid locking feature

Lid dropping protection

Imbalance shut off

Requirement and Use of the product

Product name: Hot Air Oven

Hot air oven is necessary to dry culture plates. Currently an incubator which had been used for more than 2 decades and needs upgradation.

Product Picture

General Specifications

Capacity: 100L-150L

Electrical Requirenment:208/240V 60Hz

Maximum Dimensions (LxWxH): 750mm x 900mm x 750mm

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.

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

Temp. Range: Ambient +10/+15 Degree to 200 Degree/300 Degree/400 Degree

Application: Gentle drying of heatsensitive materials, Fast drying, Residue-free drying of intricately

Features

Faster drying, since liquids evaporate at lower temperatures.

- . Should provide with three heating elements on three sides of the equipment for 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

Requirement and Use of the product

Product name: Autoclave

Product Picture



General Specifications

Applicable to medical and health services, scientific research, medical equipment, glassware, solution culture medium to carry out sterilization,

Independent quick service window, easy for repairing and maintenance.

Capacity 50L-75L

Pressure 0.28Mpa -0.217Mpa

AFTER SALES SERVICE:

Documentation: Provide **IQ, OQ** documents with Material Test Certificates and **Calibration report**

Technical Specification

- Pressure gauge range shall be 0 to 6 Kg./cm2 .

Compound gauge range shall be -1 to 6 Kg/cm2.

Safety valve range shall be 0.3 to 3.5kg/cm2.

Working temperature of sterilizer is 121-134 Deg. C and the corresponding pressure is 1.2-2.1 kg/cm2.

- * Over-temperature automatic protection
- * Over-pressure protection measures.
- * Door safety detection device.
- * Over-current and leakage safety protection.
- * Water shortage protection device.

Features

The sterilizer shall be fitted with suitable PLC (Microprocessor) for fully automatic cycle operation instead of manual operating valve with following Features:

- (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.

stainless steel bucket and tray All connecting pipes shall be made of good quality stainless steel.

Requirement and Use of the product

Product name: Biological Microscope

Brand: Olympus Microscope CX43 Standard (Preferred)

Olympus Microscope is preferred as it is a world-renowned brand of microscope which is compact, energy saving and easy to use.



General Specifications

SHould be equipped to handle a range of techniques, including phase contrast, darkfield and simple epifluorescence

Documentation: Provide **IQ, OQ** documents with Material Test Certificates and Calibration report

Technical Specification

Objectives: 4x, 10x, 20x, 40x oil Phase Contrast

Stage: mechanical fixed stage, 211 \times 154mm with slide holder 76 \times 52mm,

Vernier scale

Focusing knobs: Coarse and fine

Main power: 100-250V

Illumination: $2-2.5\ W$ with intensity

control

Features

Single-Handed Sample Placement

Smooth Magnification Change

Requirement and Use of the product

Product name: Analytical Balance

Brand:

For weighing media to prepare culture plates and other chemicals

that needs precise measurements

Product Picture



General Specifications

Capacity: 0.1g to 150g

Max weighing Pan Diameter: 100

Max dimensions (DxHxW): 300 mm x 340 mm x 200 mm Power: AC Power supply and

battery operation Linearity ±:0.2 mg

Extended warranty

After sales support is mandatory

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

-Reliable results

-Compact and Convenient

Features

Should be battery operable

CLINICAL PATHOLOGY

Requirement and Use of the product

Product name: Centrifuge

Laboratory centrifuges are used to separate and isolate different components of a sample based on their density, size, and other physical properties. The current centrifuge we have is more than 10 years old.

Product Picture

Maximum Dimensions (LxWxH):	Rotar type: Swing out Rotar (Minimum 6x95ml)	Lid dropping protection
250mm x 200mm x 200mm	(William GX33mi)	
		Imbalance shut off
Extended warranty	Duration: 1 Second to 99	
Certified Training: Biomedical training and technical training if required	Minutes	
All Service and application related		
documents to be provided After sales support is mandatory		
IQ, OQ, and Calibration		
		l

Requirement and Use of the product

Product name: Urine osmometer

Urine osmolality is one of the critical parameter analyzed in clinical pathology. For the past this parameter is reporting from calculation. The gold standard method for osmolarity is freezing point determination

Product Picture

Technical Specification	Features
Sample capacity: Up to 20 sample	Communication On-bord printer, Integrated barcode Scanner, USB 2.0
Unit: mOsm/kg H2O	
Resolution: 1 mOsm/kg H2O	Ethernet port (1) and Bidirectional interface
Range: 0 to 2000 mOsm/kg H2O	
Accuracy: 20 to 400 mOsm/kg	
Precision: 2 (within run) 0 to 400 mOsm/kg H2O:	
standard deviation ≤ 3 mOsm/kg H2O	
Minimum 3-point calibration	
Method: freezing point determination	
	Sample capacity: Up to 20 sample Unit: mOsm/kg H2O Resolution: 1 mOsm/kg H2O Range: 0 to 2000 mOsm/kg H2O Accuracy: 20 to 400 mOsm/kg Precision: 2 (within run) 0 to 400 mOsm/kg H2O: standard deviation ≤ 3 mOsm/kg H2O Minimum 3-point calibration Method: freezing point

Requirement and Use of the product

Product name: Biological Microscope

Brand: Olympus Microscope CX43 Standard (Preferred)

Olympus Microscope is preferred as it is a world-renowned brand of microscope which is compact, energy saving and easy to use.



General Specifications

SHould be equipped to handle a range of techniques, including phase contrast, darkfield and simple epifluorescence

Installation report (IQ)

Technical Specification

Objectives: 4x, 10x, 20x, 40x oil Phase Contrast

Stage: mechanical fixed stage, 211 x 154mm with slide holder 76 x 52mm, Vernier scale

Focusing knobs: Coarse and fine

Main power: 100-250V

Illumination: 2-2.5 W with intensity

control

Features

Single-Handed Sample Placement

Smooth Magnification Change

Requirement and Use of the product

Product name: Automatic Semen Analyzer

Brand: SQA-Vision MES (Recommended)

At present semen analysis is done manually. Automation will reduce manual errors and give results faster and more

The SQA-Vision is an analytical medical device that performs a complete quantitative evaluation of semen quality and semen parameters in less than 2 minutes. This high-performance analyzer incorporates technology in electro-optics, computer algorithms and video microscopy to provide a quick precise and accurate automated semen analysis.

This Increase reporting accuracy, reduce turnaround times, which is crucial in the world of fertility

Product Picture



General Specifications

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

Archive Capacity: up to 500 test records / 750 QC records

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. Birational interfacing available

Documentation: Provide **DQ, IQ, OQ, PQ** documents with Material
Test Certificates and **Calibration**report

Technical Specification

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

Features

Import patient and control data from the SQA-V

Save patients test results with video clips or still images attached

Save, view and graph patient and control test results

View real time semen samples from the SQA-V on a PC screen

Normal ranges for testing parameters can be set by the user

HAEMATOLOGY

HM1

Requirement and Use of the product

Product name: Biological Microscope

Brand: Olympus Microscope CX43 Standard (Preferred)

Olympus Microscope is preferred as it is a world-renowned brand of microscope which is compact, energy saving and easy to use.



General Specifications	Technical Specification	Features
SHould be equipped to handle a range of techniques, including phase contrast, darkfield and simple epifluorescence	Objectives: 4x, 10x, 20x, 40x oil Phase Contrast Stage: mechanical fixed stage, 211 x 154mm with slide holder 76 x 52mm, Vernier scale Focusing knobs: Coarse and fine	Single-Handed Sample Placement Smooth Magnification Change
Installation report (IQ)	Main power: 100-250V Illumination: 2-2.5 W with intensity control	

HM₂

Requirement and Use of the product

Product name: Centrifuge

General Specifications

Laboratory centrifuges are used to separate and isolate different components of a sample based on their density, size, and other physical properties. The current centrifuge we have is more than 10 years old.



Features

•	'	
Capacity: 100L-150L	Speed Maximum: 5000 RPM	Should be programmable
Electrical Requirenment:200/240V 60Hz	Speed mum: 4000 RPM	Should have lid locking feature
Maximum Dimensions (LxWxH): 250mm x 200mm x 200mm	Rotar type: Swing out Rotar (Minimum 6x95ml)	Lid dropping protection
	Duration: 1 Second to 99 Minutes	Imbalance shut off
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 IQ, OQ, Calibration report		

Technical Specification

INFECTIOUS SEROLOGY

Requirement and Use of the product

Product name: MINI INCUBATOR

Brand: -

The incubator in use is out of order and requires a replacement.



General Specifications

Dimensions: maximum (outside W x L x H) 285 x 280 x 340 mm

Weight: Less than 9 Kgs

Extended warranty
After sales support is mandatory

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

Temperature range (minimum): 5-40 °C

Electrical requirements: 100/250V

Features

Should include an additional shelf

Requirement and Use of the product

Product name: ROTATOR

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



General Specifications	Technical Specification	Features
Voltage: maximum 240V	Speed Range: 0-210 RPM (minimum)	Hot Top indicator: hot surface warning to prevent burns!
Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report	Time setting range: 0-15 minutes (minimum)	Digital error code display Elevated control panel for protection against leaking liquids

Requirement and Use of the product

Product name: MICROFUGE



General Specifications Technical Specification

Dimensions: (D x W x H): 260mm x 250mm x 145mm

(maximum)

Power:: AC100V-240V

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration

<mark>report</mark>

Should reach maximum speed of 15000rpm

Rotar capacity:

0.2mL/0.5mL/1.5mL/2mL×12

Run time: 30sec to 99 min/ continuous

Driving Motor: Brushless DC motor

Features

Over-speed detection

Requirement and Use of the product

Product name: Multi tube vortex



General Specifications

Dimensions: (Max in mm) 130 x 160

x 170

Tubes which can be used: 1.5ml,

2.0ml,

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

Speed: 200 to 3200 rpm

Features

Operation modes: Touch and

continuous

BIOCHEMISTRY

B1

Requirement and Use of the product

Product name: VORTEX MIXER

.



General Specifications	Technical Specification	Features
Heignt: maximum: 200mm Lenth (Maximum): 130mm Voltage: maximum 230V	Speed: 200 to 3200RPM (minimum)	With suction feet for stabilization
Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report		

B2

Requirement and Use of the product

Product name: Centrifuge

Laboratory centrifuges are used to separate and isolate different components of a sample based on their density, size, and other physical properties. The current centrifuge we have is more than 10 years old.



General Specifications

Capacity: 100L-150L

Electrical Requirenment:200/240V

60Hz

Maximum Dimensions (LxWxH):

250mm x 200mm x 200mm

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

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

Technical Specification

Speed Maximum: 5000 RPM

Speed mum: 4000 RPM

Rotar type: Swing out rotar

(Minimum 6x95ml)

Duration: 1 Second to 99 Minutes

Features

Should be programmable

Should have lid locking feature

Lid dropping protection

In balance shut off

BLOOD BANK

B1

Requirement and Use of the product

Product name: Analytical Balance

Brand:

For weighing media to prepare culture plates and other chemicals that needs precise measurements

Product Picture



General Specifications

Capacity: 0.1g to 150g

Max weighing Pan Diameter: 100

mm

Max dimensions (DxHxW): 300 mm x 340 mm x 200 mm Power: AC Power supply and

battery operation **Linearity ±:**0.2 mg

Extended warranty

After sales support is mandatory

Documentation: Provide IQ, OQ documents with Material Test Certificates and Calibration report

Technical Specification

-Reliable results

-Compact and Convenient

Features

Should be battery operable