



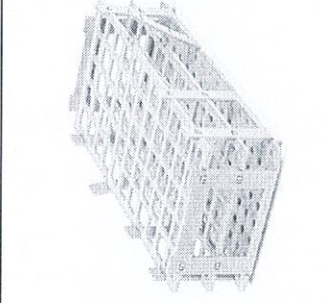
ANNEX-1

MEDICAL CONSUMABLE AND LABWARE REQUIREMENT & SPECIFICATIONS

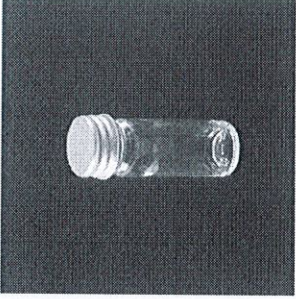
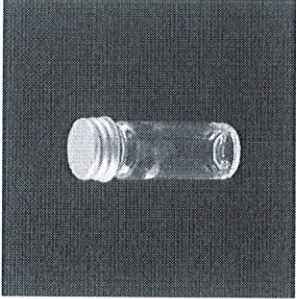


Medical Lab Ware and equipment required for 2022

CATEGORY-1

Item no:	Item	Description	Required quantity	
1	<p>Microscope objectives for Philip Harris Microscopes (x 40, high power)</p> <p>MOTIC 40/ 0.65 NA :160/0.17</p>	<p>To be used with Philip harris microscope</p>	<p>10 no's</p>	
2	<p>Microscope objectives for Philip Harris Microscopes (x 100, oil immersion)</p> <p>PLAN 100/1.25, NA: 160/0.17</p>	<p>To be used with Philip harris microscope</p>	<p>10 no's</p>	
3	<p>Test tube racks (4 X 10 Format)</p>	<p>Racks snap together for easy assembly. Sturdy construction, stackable, with alphanumeric positions for clear sample identification. Operating range - 20°C to 90°C. Autoclavable at 121°C Hold max 20mm W test tubes</p>	<p>10 Racks</p>	



4	Universal Bottles, 50ml	50 ml, glass with aluminium screw cap and rubber seal. Spare caps available.	100 Bottles	
5	Universal Bottles, 25ml	25 ml, glass with aluminium screw cap and rubber seal. Spare caps available.	100 Bottles	
6	Multiple inoculator or multipoint inoculator (for inoculation into media)	A multipoint inoculator is designed for inoculating agar plates with a maximum of twenty-four strains of bacteria or yeasts simultaneously.	2 No's	

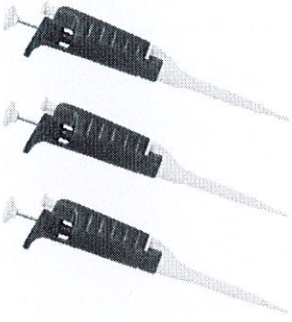


CATEGORY-2

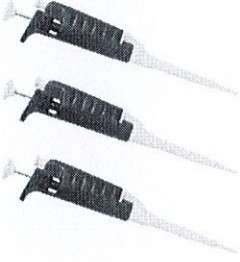
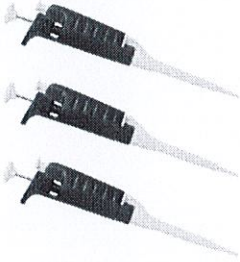
No	Item	Specification	Quantity Required
1	<p>Pharmaceutical Refrigerator Twin Door (4°C and -20°C) 500 Liters.</p>	<p>Application</p> <ul style="list-style-type: none"> • Laboratory refrigerator for storage of PCR lab reagents. <p>Technical Specifications.</p> <ul style="list-style-type: none"> • Double-door, freestanding design, with approximate capacity of 1200-1500 Liters • The refrigerator should have the following features: <ul style="list-style-type: none"> • 6-8 adjustable shelves. • Illuminated interior. • Automatic condensate evaporator. • Temperature should be variable between -30° C to +6° C or better • Integrated temperature monitoring system • The monitor shall display chamber temperature to the tenth degree centigrade. • The refrigerator shall have a seven-day temperature chart recorder. • The laboratory refrigerator shall have a security locking system • The refrigerator should have an adjustable high/low temperature alarm. • The refrigerator should have an audible and visual alarm to alert staff to power loss and temperature deviation • The refrigerator will have a method to manually test alarms. • Audible alarm should not be defeatable, but rather temporarily silenced. A corresponding visual indicator should be ON during temporary alarm silencing period. 	<p>1 No's</p>



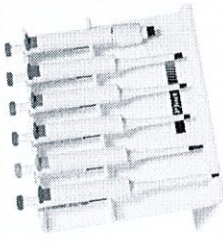
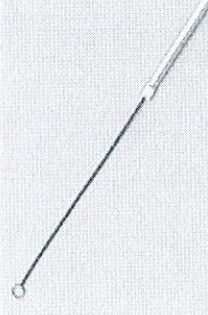
- The refrigerator shall have provision for contacts to interface with the Building Management System (BMS)
 - To incorporate four casters, at least two of which should be lockable.
 - The refrigerator shall have a magnetic door gasket for positive seal.
 - Refrigeration System.
 - Hermetically sealed, air-cooled compressor.
 - Non-CFC refrigerant.
 - Forced air circulation maintains chamber uniformity of +/- 1°C and provides quick recovery.
 - Interior fans shut down when door is opened.
 - Automatic condensate evaporation system
- Power Supply
- Power input to be 220-240VAC, 50Hz fitted 13Amp plug.
- Standards, Safety and Training
- Should be FDA approved /CE marked
 - Comprehensive training for lab staff and support services till familiarity with the system.
 - Manufacturer should have ISO certification for quality standards.
 - The unit and the accessories must be supplied with one year of warranty starting from the date of installation.
- Documentation
- Manufacturer standard biomedical technical training must be given to MoH Biomedical Engineers
 - User/Technical/Maintenance manuals to be supplied in English.
 - List of important spare parts and accessories with their part numbers

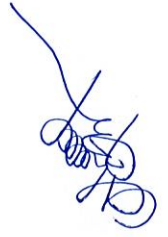
<p>2</p>	<p>Micropipette, 0.1 µl - 2 µl</p>	<p>All pipettes shall have the following specs:</p> <ul style="list-style-type: none"> • Incorporated ejector mechanism • Smooth running piston • Sterilizable (without the need for recalibration) • Simple calibration procedure (calibration tool to be included) • Each unit shall have its individual calibration (conformity) certificate • Ergonomic hand grip design with finger rest • Rotary selector knob with clear volume display window • Clear marking of volume range and color coding • Safety label with plastic cover • Blowout step to prevent capillary action in the tip for micro volumes (0.2 µl - 40 µl) • The offer shall include a set of one single channel micropipettes for each of the volume ranges specified below (manufacturer variations are accepted as long as the whole range is covered): <p>Standards, Safety</p> <ul style="list-style-type: none"> • Should be FDA approved/ CE marked • Calibration certificate must be submitted 	<p>5 No's</p>	
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3	<p>Micropipette, 5 µl - 50 µl</p>	<p>All pipettes shall have the following specs:</p> <ul style="list-style-type: none"> • Incorporated ejector mechanism • Smooth running piston • Sterilizable (without the need for recalibration) • Simple calibration procedure (calibration tool to be included) • Each unit shall have its individual calibration (conformity) certificate • Ergonomic hand grip design with finger rest • Rotary selector knob with clear volume display window • Clear marking of volume range and color coding • Safety label with plastic cover • Blowout step to prevent capillary action in the tip for micro volumes (0.2 µl - 40 µl) • The offer shall include a set of one single channel micropipettes for each of the volume ranges specified below (manufacturer variations are accepted as long as the whole range is covered): <p>Standards, Safety</p> <ul style="list-style-type: none"> • Should be FDA approved/ CE marked • Calibration certificate must be submitted 	<p>5 Nos</p>	
4	<p>Micropipette, 20 µl - 200 µl</p>	<p>All pipettes shall have the following specs:</p> <ul style="list-style-type: none"> • Incorporated ejector mechanism • Smooth running piston • Sterilizable (without the need for recalibration) • Simple calibration procedure (calibration tool to be included) • Each unit shall have its individual calibration (conformity) certificate • Ergonomic hand grip design with finger rest • Rotary selector knob with clear volume display window • Clear marking of volume range and color coding 	<p>5 Nos</p>	



		<ul style="list-style-type: none"> • Safety label with plastic cover • Blowout step to prevent capillary action in the tip for micro volumes (0.2 µl - 40 µl) • The offer shall include a set of one single channel micropipettes for each of the volume ranges specified below (manufacturer variations are accepted as long as the whole range is covered): Standards, Safety <ul style="list-style-type: none"> • Should be FDA approved/ CE marked • Calibration certificate must be submitted 		
5	Pipette Stand	<ul style="list-style-type: none"> • Fully autoclavable, six position stands 	6 stands	
6	Inoculation loops with handle Calibrated loops, with 10µl	<ul style="list-style-type: none"> • 3 Inch long, 25-gauge nichrome wire with a loop at one end and the other end mounted in an 8-Inch-long aluminum handle. • Loops are fixed to aluminum handle. 	10 Nos	



CATEGORY-3

NO:	Item	Description	Required quantity	
1.	Petri Dish (90mm/100mm)	Preparation of culture media	2000 Nos	
2.	Cover Slips 22mm (Square)	Preparation of smears & microscopy	10 Packs (20 box per packet)	
3.	Gloves(M)		100 Box (50 Pairs per box)	
4.	Gloves(S)		100 Box (50 Pairs per box)	
5.	Immersion Oil (Microscope Oil)		10 bottle (125ml per bottle)	
6.	Sterile Glass beads Plating Bead		100g X 2 bottles	
7.	Petri Dish (90mm/100mm)		1000 Nos	



CATEGORY-4

No	Item	Description	Required quantity
1.	Ammonium sulphate		500ml x 1 No's
2.	Anaerobic Catalyst	To be used to create an anaerobic environment within anaerobic gas jars. For an example OXOID Anaerobic Catalyst BR0042A	2 Pack (1 Pkt = 5 No's)
3.	Anaerobic Gas Generating Packets	To be used to create an anaerobic environment within anaerobic gas jars. For an example OXOID Anaerobic Catalyst BR0042B	2 Pack (1 Pkt = 5 No's)
4.	API® strips, 25 tests	For accurate identification of microorganisms	5 strips
5.	Crystal violet	Primary stain used in Gram's staining For an example HIMEDIA ONLINE CATALOGUE NO: S012	125ml x 10 No's
6.	Ziehl-Neelsen staining kits	For detection and identification of Acid-Fast Bacilli. Each kit should contain <ul style="list-style-type: none"> • Strong Carbol Fuchsin • Acid Alcohol Methylene blue or malachite green	3 kits
7.	May Grunwald Giemsa Staining kit with Spray Fixative and Buffer	Standard stain for differential staining of blood and bone marrow smears.	2 Kit
8.	Magnesium sulphate, dehydrate		500ml x 1 No's
9.	Potassium nitrate, dehydrate		500g x 1 No's



10.	Thromboplastin reagent (Lyophilized reagent)	For measurement of prothrombin time. (PT)	5ml x 20 bottles
11.	Lactophenol Blue	Staining and identification of fungi	100ml X 1 bottles
12.	Xylose-Lysine Deoxycholate Agar (XLD)	For selective isolation and enumeration of Salmonella Typhi and other Salmonella species (2-year expiry from date of supply)	100g X 1 Bottle
13.	Brain Heart Infusion CC Agar BHI CC Agar	For selective isolation and cultivation of fastidious pathogenic fungi and saprophytic fungi from specimens heavily contaminated with bacteria. (2-year expiry from date of supply)	100g X 1 Bottle
14.	Mueller-Hinton agar	for cultivation of Neisseria and for determination of susceptibility of microorganisms to antimicrobial agents. (2-year expiry from date of supply)	500g X 2 Bottles
15.	Blood Agar Base	Recommended for preparation of blood agar, chocolate agar and for preparation of various selective and identification media and isolation of organisms from clinical and non-clinical sample. (2-year expiry from date of supply)	500g X 2 Bottles
16.	Cled Agar with Bromothymol Blue	Recommended for isolation, enumeration and identification of urinary pathogens on the basis of lactose fermentation (2-year expiry from date of supply)	500g X 2 bottles
17.	1% sodium hypurite		100ml X 1 bottle
18.	Ninhydrin Solution, A.R		100ml x 1 bottle

NOTE: All consumables with expiry SHOULD have atleast, 2 years from date of supply.