



**Ministry of Health**  
**Directorate of Biomedical Engineering**  
**Technical Specifications for Laboratory Equipments**



**Item Description:** Tube Mixer  
**Item no. (1)**

**Class No.:** ( )  
**Qty. (7)**

No.	Technical Specifications	Min MOH Requirement	Bidder Offer
1	Manufacturer	Please specify manufacturer and country of origin	
2	Model Number	Please specify model number of the offered equipment	
3	Safety Standard	FDA approval or CE marking	
4	Application	For hematology	
5	Design	<ul style="list-style-type: none"><li>- Roller</li><li>- Removable side panels (preferable)</li><li>- Simultaneous rolling and tilting motion</li></ul>	
6	Number of Rollers	4 – 6 rollers	
7	Variable Speed	5 to 60rpm	
8	Display	LCD or LED for speed and time	
9	Timer	<ul style="list-style-type: none"><li>- One second to 30min</li><li>- Continuous operation</li></ul>	
10	Power Supply	220V / 50Hz	

**Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations

م.صحي الربايعة، م.صحي عين الباشا، م.صحي الكرامة، م.صحي الديسة الأولى، م.صحي شفا بدران، م.صحي النصر، مركز صحي النهضة



**Ministry of Health**  
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**Technical Specifications for Laboratory Equipments**

**Item Description: Dry Bath**  
**Item no. (2)**

**Class No. : ( )**  
**Qty. (5)**

No.	Technical Specifications	Min MOH Requirement	Bidder Offer
1	Manufacturer	Please specify manufacturer and country of origin	
2	Model Number	Please specify model number of the offered equipment	
3	Safety standard	FDA approval or CE marking	
4	Construction	<ul style="list-style-type: none"><li>- Powder-coated steel body and easy cleaning and disinfecting</li><li>- Heat insulator</li></ul>	
5	Application	<ul style="list-style-type: none"><li>- Sample preparation</li><li>- Enzyme preservation</li><li>- Enzyme substrate reactions</li><li>- DNA amplification</li></ul>	
6	Display	LCD or LED for time and temperature	
7	Timer	From 1 to 99min or continuous	
8	Temperature Range	Ambient + 5°C to 99°C or better	
9	Temperature Accuracy	± 0.3°C or better	
10	Calibration	Automatic calibration for temperature	
11	Heating Up Time	≤ 25min for maximum temperature	
12	Blocks	<ul style="list-style-type: none"><li>- All blocks are made from aluminum alloy and easy cleaning and disinfecting</li><li>- Four blocks 0.2 mL, 0.5 mL, 15 mL and 50 mL</li></ul>	
13	Temperature Probe	Included	
14	Safety	<ul style="list-style-type: none"><li>- Over temperature protection</li><li>- High current protection</li><li>- Against electric shock protection</li></ul>	
15	Power Supply	220V / 50Hz	

**Note : Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

م. صحي الربابعة، م. صحي عين الباشا، م. صحي الكرامة، م. صحي الديسة الأولى، م. صحي شفا بدران: Equipment Distribution Locations:



**Ministry of Health**  
**Directorate of Biomedical Engineering**  
**Technical Specifications**



**Item Description:** Tube Centrifuge Type (A)  
**Item no. (3)**

**Class No. : (10-778)**  
**Qty. (8)**

No	Technical Specifications	Min MOH Requirement	Bidder Offer
1	Manufacturer	Please specify manufacturer ,country of origin and country of manufacturer	
2	Model Number	Please specify model number	
3	Safety Standard	FDA approval or CE marking	
4	Design	<ul style="list-style-type: none"><li>- Bench top</li><li>- Heavy duty</li><li>- Microprocessor control</li><li>- Brushless motor (inverter preferred)</li><li>- Motorized (powered) lid locking device</li><li>- Tachometer view port</li><li>- Automatic rotor verification(recognition)</li><li>- Stainless steel rotor chamber</li></ul>	
5	Programs	Not less than 10 programs	
6	Display	LCD for speed, time and program number	
7	Timer	<ul style="list-style-type: none"><li>- Digital</li><li>- Duration from 10s or better to 99min</li><li>- Timer set steps 10s or better</li><li>- Short time operation mode-hold</li></ul>	
8	Visual Indicators	<ul style="list-style-type: none"><li>- Speed</li><li>- Lid open</li><li>- Start / stop</li><li>- Quick (short) run</li></ul>	
9	Audible Signal	<ul style="list-style-type: none"><li>- Sound at end of operation</li><li>- Rotor error</li></ul>	
10	Noise Level	≤ 60 dB at maximum speed	

**Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations:

م.صحي الربايعة,م.صحي عين الباشا ,م.صحي الكرامة ,م.صحي الديسة الأولى ,م.صحي شفا بدران ,م.صحي النصر, مركز صحي  
النزهة, م.صحي مؤتة

*Cont ...Tube centrifuge type (A)*

No	Technical Specifications	Min MOH Requirement	Bidder Offer
11	Rotor	<ul style="list-style-type: none"> <li>- 4 place swing out (Please specify rotor structure)</li> <li>- 90° angle</li> <li>- Adjustable speed from 500rpm or better to 4000rpm</li> <li>- Speed set steps 100rpm or better</li> <li>- Max acceleration / deceleration time 40s or better</li> <li>- 16 tubes per rotor</li> <li>- Set of 4 bucket</li> <li>- 4 places in insert (carrier, adapter)</li> <li>- 10 ml tube capacity</li> <li>- Blood collection tube type (vacutainer)</li> <li>- Tube dimensions 16 diameter x (100 – 110) length</li> </ul>	
12	Safety	<ul style="list-style-type: none"> <li>- Emergency lid release</li> <li>- Imbalance switch-off</li> <li>- Lid locking and holding during rotor run</li> <li>- Motor over heating protection</li> <li>- Rotor over speed protection</li> <li>- Self-diagnostics check (system check)</li> </ul>	
13	Power Supply	220 V / 50 Hz	

**Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations:

م.صحي الربايعة, م.صحي عين الباشا, م.صحي الكرامة, م.صحي الديسة الأولى, م.صحي شفا بدران, م.صحي النصر, مركز صحي  
النزهة, م.صحي مؤتة



**Ministry of Health**  
**Directorate of Biomedical Engineering**  
**Technical Specifications**



**Item Description: Heamatocrit Centrifuge**  
**Item No :(4)**

**Class No. : (18-270)**  
**QTY :(4)**

No	Technical Specifications	Min MOH Requirement	Bidder offer
1	Manufacturer	Please specify manufacturer and country of origin	
2	Model Number	Please specify model number	
3	Safety standard	FDA approval or CE marking	
4	Design	<ul style="list-style-type: none"><li>- Bench top</li><li>- Heavy duty</li><li>- Microprocessor control</li><li>- Brushless motor</li><li>- Motorized (powered) lid locking device</li><li>- Tachometer view port</li><li>- Automatic rotor verification (recognition)</li><li>- Stainless steel rotor chamber</li></ul>	
5	Programs	Not less than 10 programs	
6	Display	LCD for speed, time and program number	
7	Timer	<ul style="list-style-type: none"><li>- Digital</li><li>- Duration from 1 or better to 99 min</li><li>- Timer set steps 1 min or better</li><li>- Short time operation mode-hold</li></ul>	
8	Visual Indicators	<ul style="list-style-type: none"><li>- Rpm/rev</li><li>- Lid open</li><li>- Start / stop</li><li>- Quick (short) run</li></ul>	
9	Audible signal	<ul style="list-style-type: none"><li>- Sound at end of operation</li><li>- Rotor error</li></ul>	

**q Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations:

م.صحي الربابعة، م.صحي شفا بدران، مركز صحي النهضة، م.صحي مؤتة

*Cont ..... Heamatocrit Centrifuge*

10	Noise level	≤ 60 db(A) at max speed
11	Rotor	<ul style="list-style-type: none"> <li>- 24 place heamatocrit rotor with reader</li> <li>- 90° angle</li> <li>- Please specify rotor structure</li> <li>- Adjustable speed from 300 or better to 13000 in rpm</li> <li>- Speed set steps 100 in rpm or better</li> <li>- Max accel / decel time 40 s or better</li> <li>- 24 standard heamatocrit capillaries per rotor (each capillary in the individual segment)</li> </ul>
12	Safety	<ul style="list-style-type: none"> <li>- Emergency lid release</li> <li>- Imbalance switch-off</li> <li>- Lid locking and holding during rotor run</li> <li>- Motor over heating protection</li> <li>- Rotor over speed protection</li> <li>- Self diagnostics check (system check)</li> </ul>
13	Power supply	220 V / 50 Hz

**q Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations:

م.صحي الربابعة,م.صحي شفا بدران, مركز صحي النزهة, م.صحي مؤتة



**Ministry of Health**  
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**Technical Specifications For Laboratory Equipments**



**Item Description: Microscope**  
**Item no. (5)**

**Class No. (12-536)**  
**Qty. (5)**

No.	Technical Specifications	Min MOH Requirement	Bidder Offer
1	Manufacturer	Please specify manufacturer and country of origin	
2	Model Number	Please specify model number of the offered equipment	
3	Safety Standard	FDA approval or CE marking	
4	Optical System	Infinite corrected system	
5	Nosepiece	Quintuple revolving nosepiece	
6	Eye Pieces (Two)	Extra wide field eyepiece EW 10X /20mm	
7	Head Observation Tubes	Binocular, 30° inclined, 360° rotating	
8	Objectives	Infinite corrected plane achromatic objectives X4, X10, X40, X100 (oil)	
9	Condenser	Swing condenser, suitable for above objectives	
10	Observation Mode	Bright field	
11	Stage	Large sized double layer mechanical specimen stage	
12	Focusing	Coaxial coarse (adjustable tension) and fine focusing mechanism	
13	Light Source	LED	
14	All Standard Accessories	Should supplied with dust cover, immersion oil, green filter and blue filter	
15	Power Supply	Built in 220V / 50Hz	

**Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations:

م.صحي الربايعة, م.صحي عين الباشا, م.صحي الكرامة, م.صحي الديسة الأولى, مركز صحي النهضة



**Ministry of Health**  
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**Item Description:** SPECTROPHOTOMETER

**Class No.** (15-601)

**Item No :**(6)

**QTY :**(5)

No.	Technical Specifications	Min MOH Requirement	Bidder offer
1.	Manufacturer	Please specify manufacturer and country of origin	
2.	Model Number	Please specify model number of the offered equipment	
3.	Safety standard	FDA approval or CE marking	
4.	Configuration	Single beam	
5.	Lamp type	Accepted types : Halogen or LED	
6.	Wavelength range	340 - 600 nm or better	
7.	Wavelength accuracy	$\pm 1$ nm	
8.	Control	Microprocessor control	
9.	Display	Digital display	
10.	Sample Intake	Through cell	
11.	Printer	Built in	
12.	Temperature controller	Built in	
13.	Interface	RS232	
14.	Power supply	220 V / 50 Hz	

**Note: Bidder must answer with YES or NO in the "BIDDERS OFFER" Field**

Equipment Distribution Locations:

م.صحي الكرامة, م.صحي الديسة الأولى, م.صحي الربابعة, م.صحي مؤنة (2)





**Ministry of Health**  
**Directorate of Biomedical Engineering**  
**Technical Specifications for Blood Bank Equipments**



**Item Description:** Portable Blood Drawing Chair  
**Item No:**(7)

**Class No. :** (        )  
**QTY:**(6)

No	Technical Specifications	Min MOH Requirement	Bidder Offer
1.	Manufacturer	Please specify manufacturer and country of origin	
2.	Model Number	Please specify model number of the offered equipment	
3.	Safety standard	FDA approval or CE marking	
4.	Type	<ul style="list-style-type: none"><li>• Foldable drawing chair</li><li>• Movable Type</li></ul>	
5.	Frame construction	Made of high Quality steel with high Quality finishing	
6.	Armrest	Full length in both sides	
7.	Armrest adjustment	Horizontal and vertical	
8.	Flip-arm Position for easy exit	Included	
9.	Fabric	Medical grade stain resistant leather & washable	

**Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations:

م. صحي الرابعة, م. صحي الكرامة, م. صحي الديسة الأولى, م. صحي شفا بدران, م. صحي النصر, م. صحي النزهة



**Ministry of Health**  
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**Technical Specifications**



**Item Description:** Laboratory Incubator (Small Size)  
**Item No :(8)**

**Class No.: (18-013)**  
**QTY :(1)**

No.	Technical Specifications	Min MOH Requirement	Bidder offer
1	Manufacturer	Please specify manufacturer and country of origin	
2	Model Number	Please specify model number of the offered equipment	
3	Safety standard	FDA approval or CE marking	
4	Design	<ul style="list-style-type: none"><li>- Compact design</li><li>- Stainless steel housing</li><li>- Low noise during operation</li><li>- Pre heated fresh air</li><li>- Adjustable fan speed</li><li>- Interior lighting</li><li>- Mounted on lockable castors</li></ul>	
5	Control	Microprocessor controlled	
6	Temperature Range	Ambient to 80°C or better	
7	Temperature Accuracy	±0.2°C or better	
8	Interior Chamber	<ul style="list-style-type: none"><li>- Approx. 55L</li><li>- All metal inside should be stainless steel</li><li>- Two adjustable stainless steel shelves</li></ul>	
9	Double Doors	<ul style="list-style-type: none"><li>- Inner glass door</li><li>- Exterior stainless steel and multi-layer insulated</li></ul>	
10	Display	LCD	
11	Timer	Programmable	
12	Indicators	<ul style="list-style-type: none"><li>- Power on</li><li>- Heater on</li></ul>	
13	Alarm	<ul style="list-style-type: none"><li>- Power failure</li><li>- Over temperature</li></ul>	
14	Safety	<ul style="list-style-type: none"><li>- Over temperature protection</li><li>- Over current protection</li><li>- Automatic cut off of heater when door opened</li></ul>	
15	Interfaces	USB	
16	Power Supply	220V / 50Hz	

**Note: Bidder must answer with YES or NO in the “BIDDERS OFFER” Field**

Equipment Distribution Locations: م. صحي عين الباشا: