

Project Strengthening Institutional and Economic Resilience in Yemen (SIERY)
مشروع / تعزيز المرونة المؤسسية والاقتصادية في اليمن (SIERY)

Tables of Technical Specifications for Furnishing and Equipping Health facilities in Aden Governorates

المواصفات الفنية للأجهزة والمعدات الطبية والأثاث
لتوريد وتشغيل أجهزة الفحص الطبي الحديثة مع المحاليل المخبرية لعدد ٤ مراكز صحية في مديرية الشيخ عثمان - محافظة عدن

No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
A-1	Item Description	Hot Air Oven	جهاز تعقيم بالهواء الجاف	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy Duty Designed, New Model.		
5.2		The machine should be of latest model and must have latest technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	The Supplier is Required to be a Certified Distributor or Agent of the Company.		
6	Controller:	Fully automatic control (microprocessor or microcomputer),Hot Air Circulation System.		
7	Temperature Range °C:	Approx. 20- 260°C.		
8	Chamber Capacity:	24-30L		
9	Interior Chamber :	Electro-acid coated aluminum		
10		Zero Cross PID Temp.Control System.		
11	Constructions:	Stainless Steel For Interior Chamber And Steel Backed Coating Finish For The Exterior Construction.		
12	Display:	Digital display for temperature and time		
13	Timer :	1 min. to 100 hours and hold position		
14		Safety thermostat		
15	Shelves:	The unit shall be equipped with At 2 -3 shelves (stainless steel).		
16	Life Span for Machine:	10 Years		
17	Maintenance:			
17.1		2 Years Free Maintenance.		
17.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
17.3		Application Software and Interface Connection Included.		
18	Accessories:	Supplied With:		
18.1		3x Fuses		
18.2		1x Spare heaters		
18.3		All accessories, if any must be included to put the system in to fully operational.		
19	Power Supply:	AC 110-240V, 50/60Hz single-phase electrical source.		
19.1		Compliant with IEC 60601.		
19.2		Built-in protections against over-voltage and over-current line conditions.		
20	Other Specification:	Please Specify Other Specification		
A-2	Item Description	Portable Doppler Ultrasound System ,Diagnostic Machine	جهاز موجات فوق صوتية (سونار) مع الملحقات	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark	Required certificates		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK.		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy duty designed, new Model.		
5.2		The machine shuld be of latest model and must have lattest technology		
5.3	Quality:	high quality, Safety, Ease of Use		
5.4	Supplier:	the supplier is required to be a certified distributor or agent of the company.		
6	Type:	Portable system With Trolley on four castors , two with brakes.		
7	System technology:	Digital beam former , upgradeable Hardware & Software.		
8	Applications:	Abdominal , OBS/GYN,Urology. Cardiology ,Vascular , Small Parts.		
9	Scanning Techniques:	1) Electronic convex scanning. 2) Electronic linear scanning.		
10	Monitor:	High resolution B & W monitor with tilt and swivel and a size of 12- 15 inches or Better.		
11	Key Board:	Full key board with built in trackball.		
12	Display Modes:	B, B/B , M , B/M , 2D Imaging , Color Doppler mode , Harmonic Imaging , Pulsed Wave Doppler ,		
12.1	Other Display Modes:	Please Specify,		
13	Gray Scale Max:	256 Levels Or Better.		
14	Dynamic Range:	100 dB Or Better.		
15	Frame Rate, Frame /Sec:	Please Specify		
16	Image Control:	Gain , STC , Image processing , Image shift , Zoom and post processing.		
17	Processing Channels:	256 Channels Or Better.		
18	M-Mode Sweep Speed:	4 Steps Or Better.		
19	Presets:	5 Or Better.		
20	Cine Memory:	Please Specify No. of Images.		
21	Image Storage:	On HDD & CD and USB , Please specify storage capacity.		
22	Measurement:	Distance , Area , Volume and Fetal Parameters.		
23	Calculation:	Calculation Packages for Abdominal , OB/GYN.		
24	Connector Probe:	Minimum Two.		
25	Probe Holder:	Included.		
26	Probes:			
26.1		Convex probe 2-5 - 5 MHz multi frequency (Priced probe)		
26.2		Vaginal probe 6.5 MHz multi frequency (Priced probe)		
27	Printer:	B & W Printer		
28	UPS:	Included Online Type (2 KVA)		
29	Accessories:			
29.1		5 X Gel, 500 g		
29.2		6 x Roll Paper		
29.3		1 X Original Trolley		
29.4		1 X Dust Cover		
29.5		1 X Operation Manual		
29.6		1 X Service Manual		
30	Power supply:	100 to 240 V ~ ±10%, 50/60 Hz Single phase		
30.1	Rechargeable Battery:	Rechargeable battery with built in charger with indicators for charging and low battery		
31	Estimated life-Span of the Device:	At Least 10 Years		
32	Maintenance:			
32.1		2 Years Free Maintenance.		
33	Training:	User /Nurses training, by Specialist from the Supplier.		
34	Other Specification:	Please Specify.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
A-3	Item Description	Laboratory Microscope Binocular	جهاز ميكروسكوب ضوئي	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan, USA and UK.		
5	General Specification:	The Unit Shall be Safe to Use		
5.1	Designed:	Heavy duty Designed, New Model.		
5.2		The Machine should be of Latest Model and Must have Latest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	the Supplier is Required to be a Certified Distributor or Agent of The Company.		
6	Type:	Binocular		
7	Eyepieces:	Please Specify		
8	Interpupillary distance adjustment, mm:	Adjustable		
9	Nosepiece Configuration:	Quadruple or better		
10	Objectives magnification:	4x,10x; 40x; 100x (oil)		
11	Objectives Type:	Achromatic OR Plan achromatic		
12	Filter:			
12.1	Color(s):	Please Specify		
13	Illumination:			
13.1	Condenser Type:	Built-in		
13.2	Numerical Aperture:	Please Specify		
13.3	Light Source:	Halogen or Led		
14	Stand:			
14.1	Focusing Mechanism:	Moving Stage		
14.2	Coarse, Fine Adjustments:	Coaxial Coarse and Fine Adjustment		
15	Stage:			
15.1	Type:	Mechanical		
15.2	Tension adjustment:	Coaxial		
15.3	Motion:	X-Y		
16	Accessories:			
16.1	Adapter(s):	Required		
16.2	Dust cover:	Required		
16.3		50 X Microscope Slides 76x26mm.		
16.4		100 X Cover slides 22x22mm.		
17	Life Span for Machine:	5 Years		
18	Maintenance:			
18.1		2 Years Free Maintenance.		
18.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
18.3		Application Software and Interface Connection Included.		
19	Power Supply:	100 to 240 V ~ ±10%, 50 Hz		
20	Other Specification:	Please specify.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
A-4	Item Description	Centrifuge Toptable	جهاز طرد مركزي لفصل العينات	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan, USA and UK.		
5	General Specification:	The Unit Shall be Safe to Use		
5.1	Designed:	Heavy Duty Designed, New Model.		
5.2		The Machine should be of Latest Model and Must Have Latest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	The Supplier is required to be a Certified Distributor or Agent of The Company.		
6	Rotational Speed :			
6.1	Maximum revolutions per minute (RPM)	4000-5000 Or Better.		
6.2	RPM increments:	10 or More.		
6.3	Maximum relative centrifugal force (RCF), g:	1100 or More.		
7	Rotors Available:			
7.1	Fixed Angle:	Included		
8	Capacity:			
8.1	Maximum number of tubes and volumes:	8-12 X (15 mL) Or Better		
9	Timer:			
9.1	Range, min:	1-999 min 59 sec		
9.2	Settings:	Timed, continuous, pulse (burst)		
9.3	Braking Type:	Electric		
9.4	Settings:	9 or less		
9.5	Brake time, sec	rotor dependent. Please Specify.		
9.6	Brush/Brushless	Brushless		
10	Safety Features:			
10.1	Lid Interlock:	Included		
11	Alert Indicators:			
11.1	Centrifuge lid Open:	Included		
11.2	Imbalance:	Included		
11.3	End of run:	Included		
11.4	Overspeed:	Included		
11.5	Other	Please Specify.		
11.6	Display Type:	LCD		
11.7	Parameters Displayed:	RPM, Run Time		
11.8	Lock icon	Yes		
11.9	Programmable :	Please Specify.		
11.10	Self-Diagnostics:	Included		
12	Recommended cleaners/disinfectants:	Ethanol, n-propanol, ethyl hexanol, anionic tensides, corrosion inhibitors		
13	Noise Level, Db:	≤62, Or Less (rotor dependent)		
14	Life Span for Machine:	10 Years		
15	Maintenance:			
15.1		2 Years Free Maintenance.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
15.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
15.3		Application Software and Interface Connection Included.		
16	Power Supply:	100 to 240 V ~ ±10%, 50 Hz		
17	Other Specification:	Please specify.		
A-5	Item Description	Shaker Machine for Tubes	جهاز هزاز لانايبب العينات	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	Designed:	Heavy duty Designed, New Model.		
5.1	Quality:	High Quality.		
5.2	Supplier:	the Supplier is required to be a Certified Distributor or Agent of the Company.		
5	General Description:	Clinical Lab Rotator with continuous duty motor provides smooth, quiet rotation		
6	Speed:	Variable speed control up to 200 rpm for serological flocculation and agglutination test		
7	Control:	Selected speed will be accurate at least + rpm		
8		Actual platform speed will be clearly indicated		
9	Timer:	Integral timer is set at periods between 0 – 30 min/ 60 or operate continuously		
10	Alarm:	Signals end of timed rotation		
11	Construction:	Platform surface will be a non-slip material, the rim will be raised to retain slides		
12	Line Power , VAC:	100 to 240 V ~ ±10%, 50/60 Hz Single phase (power cable Compatible with the Hospital electric outlet plug, 5 mt), Electrical Safety class 1		
13	Life Span for Item:	At Least 7 Years		
14	Warranty	Minimum of 1 Year.		
15	Other specification	Please Specify Other Specifications.		
A-6	Item Description	Digital Glucometer	جهاز قياس سكر الدم	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	Designed:	Heavy Duty Designed, New Model.		
5.1	Quality:	High Quality.		
5.2	Supplier:	The Supplier is Required to be a Certified Distributor or Agent of The Company.		
6		Digital Glucometer.		
7	Technical Specifications:			
7.1		Sample Volume One Drop		
7.2		Test Time Less than 10 seconds		
7.3		With Memory		
7.4		Set complete with prick pen		
7.5		Lancets		
7.6	Measurement Unit :	mmol/L Or mg/dL		
7.7	Sample Volume :	0.5 microliters		
7.8	Display :	LCD Display		
7.9		Battery Operated		
8	Accessories:			
8.1		500 X Glucose Strips		
8.2		1 X Carry Bag.		
8.3		2 X battery (Spare part)		
9	Life Span for Machine:	5Years		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
10	Warranty:	Minimum of 2 Years.		
11	Other Specification:	Please Specify Other Specifications.		
A-7	Item Description	Semi Automated Biochemistry Analyzer	جهاز كيمياء نصف أوتوماتيك	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union , Japan, USA and UK		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy Duty Designed, New Model.		
5.2		The Machine shuld be of Latest Model and must Have Lattest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	The Supplier is Required to be a Certified Distributor or Agent of The Company.		
6	Technical Specification :	Should be microprocessor controlled general purpose bi-chromatic photometer		
6.1	Filters:	At least 7 Filters.		
6.2	Ranging nm:	340 to 700 nm Or Better.		
6.3	Light source :	Tungsten/ halogen or higher grade (led lamp)		
6.4	Methods:	End point, kinetic and two point kinetic measurement modes or more		
7	Printer:	Build-in		
8	Measurement Range :	from 0.001 to 2.300Abs or better		
9	Display:	LCD display. Touch Screen		
10	Control:	Quality control – two control/test QC survey of at least 30 points, Levy Jenny plot.		
11	Bandwidth nm:	5 nm or lesser.		
12	Programme Memory:	Should have a test programme memory of 50 or more.		
13		Should be provided with sample carry over prevention facility.		
14		Aspiration should be based on Bellow/Peristaltic Pump/ Vacuum pump.		
15	Reagents :	Should provide: 500 ml of reagents for urea, S. creatine, S. bilirubin, sugar, cholesterol, and Quality control 5ml one each for normal, abnormal.		
16	Life Span for Machine:	10 Years		
17	Maintenance:			
17.1		2 Years Free Maintenece.		
17.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
17.3		Application Software and Interface Connection Included.		
17.4		Spare Parts list with code NO		
18	Accessories:			
18.1	bulb:	One Spare bulb		
18.2	Fues:	3 Fuses		
19	Training:	Users /Nurses and Biomedical Engineers Training, by Specialist from the Supplier.		
20	Power Supplay:	100 to 240 V ~ ±10%, 50/60 Hz Single Phase automatic range selection (power cable Compatible with the Hospital electric outlet plug, 5 mt), Electrical Safety class 1		
21	Other Specification:	Please Specify Other Specifications.		
A-8	Item Description	Dental Unit, Completed With Accessories	وحدة أسنان مع الملحقات	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union , Japan, USA and UK		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy Duty Designed, New Model.		
5.2		The Machine should be of Latest Model and must Have Latest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	The Supplier is Required to be a Certified Distributor or Agent of The Company.		
6		A patient chair with a welded steel chassis and allowing a height adjustment from 35-90 cms		
7		Seat leg rest and back rest synchronized in movement for patient comfort		
8		Foot control for programmed movement, automatic re-setting switch and safety switch		
9		Seamless upholstery for good aseptic control(dental chair haydraulic mouvements)		
10	Dental Unit Specification:			
10.1		Attached to the chair with over head delivery system to accommodate up the following 4 modules:		
10.2		One turbine connections with hand-piece		
10.3		One air-motor connection with air-motor and hand pieces (straight & contra).		
10.4		One fiber optic air rotor connection with quick disconnect coupling.		
10.5		One 6 way-syringe with removable tip for sterilization.		
10.6		All the controls of the chair should be touch pad on doctor's & assistant's sides.		
10.7		Autoclavable pad should be provided on the unit where the hand pieces are placed		
10.8		Water reservoirs & disinfectant with automatic pressurization		
10.9		Non retraction valve to avoid contaminated materials.		
10.10		Should have warm water syringe.		
10.11		X-Ray Viewer Originally Mounted.		
10.12		Fiberoptic Scaling Unit (Electric e coolant, min. 3 pcs. S.H.)		
10.13		Light curing system (min. p.p. 2mm, e protecting glass)		
11	Spittoon/Water Unit Specification:			
11.1		Removable porcelain bowel, cup filler and spittoon nozzles for cleaning.		
11.2		Spittoon automatic water supply.		
11.3		Hi/Lo Suction with filters.		
12	Light Specification:			
12.1		With luminosity of 20000-25000 lux.		
12.2		About 260 degree of rotation of light arm movement.		
12.3		Easy to adjust with only one handle on each side		
12.4		Easy to clean		
12.5		Light should allow vertical, horizontal & axial movement for proper focusing.		
13	Oil Free Air Compressor Medical Grade:			
13.1		Air moisture filter.		
13.2		No Reaction Valve.		
13.3		Air pressure gage.		
13.4		Air tank 30-40 L.		
13.5		Auto cut-off switch.		
13.6		Oil free medical grade air.		
13.7		230V, 50Hz		
13.8		Oiless		
13.9		Silent		
14	Dental Stool:	2 X Dental Stool		
14.1		Height adjustable with 5 double sided castors , Adjustable seat height: Maximum not less than 63 cm, Minimum not more than 50cm		
14.2		Back Rest		
15	Accessories:			
15.1		1 Set X Contra-angel handpiece		
15.2		1 Set X Turbine handpiece, 300.000rpm or best		
15.3		1 Set X Electrical Micro-Motor handpiece. 40.000 rpm max or best		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
15.4		1 X Foot control: Single foot control For all instruments, with variable speed control.		
15.5		1 X Internal Fiberoptic Scaling Unit		
15.6		1 X Internal Light curing system		
16	Life Span for Machine:	10 Years		
17	Maintenance:			
17.1		2 Years Free Maintenece.		
17.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
17.3		Application Software and Interface Connection Included.		
17.4		Spare Parts list with code NO		
18	Training:	Users /Nurses and Biomedical Engineers Training, by Specialist from the Supplier.		
19	Power Supply:	100 to 240 V ~ ±10%, 50/60 Hz Single Phase automatic range selection (power cable Compatible with the Hospital electric outlet plug, 5 mt), Electrical Safety class 1		
20	Other Specification:	Please Specify Other Specifications.		

A-9	Item Description	Diagnostic Set (ENT) Otoscope & Ophthalmoscope.	طاقم فحص الأذن والأنف والحنجرة	
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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan, USA and UK		
5	Designed:	Heavy Duty Designed, New Model.		
5.1	Quality:	High Quality.		
5.2	Supplier:	The Supplier is Required to be a Certified Distributor or Agent of The Company.		
6	Type:	Portable ENT Diagnostic Set.		
7	Main Unit:	Head Mirror with Adjustable Band and 19 mm Diameter.		
8	Accessories:			
8.1		Ophthalmoscope.		
8.2		Otoscope carrier.		
8.3		Ear Spacule (3,4,5 & 6 mm diameter.).		
8.4		Nasal speculum (8 mm. diameter).		
8.5		Dilating nasal speculum.		
8.6		Laryngeal mirror stem.		
8.7		Laryngeal mirror. Tongue depressor.		
8.8		Battery and 2 spare lamps.		
8.9		Portable Case.		
9	Life Span for Item:	7 Years		
10	Warranty:	Minimum of 1 Year.		
11	Other Specification:	Please Specify Other Specifications.		

A-10	Item Description	Automatic Heamatology cbc Complete Blood Cell Counter	جهاز عد خلايا الدم (فحص الدم العام)	
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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofness.		
5.1	Designed:	Heavy Duty Designed, New Model.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
5.2		The Machine should be of Latest Model and Must have Latest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	the Supplier is required to be a Certified Distributor or Agent of the Company.		
6	Principle:	(Electrical Impedance Method- WBC / RBC / PLT, Colorimetric- HGB)		
7	Configuration:	Benchtop.		
8	Type:	3 Part Differential , New model,Able for High load & Hard work.		
9	Parameters:	At Least (18 parameters includes + 3 Histogram)		
9.1	Test Menu:	WBC, LYM#, MID#, GRA#, LYM MID%,GRA%, RBC,HGB, HCT,MCV, MCH, MCHC, RDW-SD, RDW-CV, PL MPV, PDW, PCT,P-LCR.		
9.2	Histogram:	WBC Histogram, RBC Histogram, PLT HistogramT)		
10	Chamber:	Must be double chamber		
11	Throughput Speed:	At Least 60 samples per hour.		
11.1	Analysis Time:	Less Than 60 Sec.		
12	Sample Volume:	Should be less than 50 µl for all parameters including Pediatric Samples (20 µl for capillary blood)		
13	Display, Type:	Color LCD touchscreen		
13.1	Size For Screen:	5"-9" Or More.		
14	Start up and shut Down:	Single button Start up and shut Down.		
14.1		Automatic cleaning of Samples probe (internal & External)		
15	Operating Platform:	Please Specify The Operation System		
16	System Control:	Should have built in microprocessor controller with auto calibration, self diagnostic check Error codes Display with auto alarm.		
17	Quality Control :	Must have extensive in built QC Programme.		
17.1		The firm must have their own quality controls and calibrators		
18	Results:	(Internal memory can store at liest 10000- 40,000 Test values with Histograms)		
19	Interface:	Please Specify The Ports		
20	Calibration:	(Both Automatic and Manual Calibration mode. 3 sets of Calibration coefficient for Whole Blood, Anti-coagulant Peripheral Blood and Pre-diluted Peripheral Blood.)		
21	Accuracy:	Should have high Accuracy ,should be WBC- 3% or lower, RBC - 1% or lower, Hb-1% or lower, PLC 5 % or lower, HCT- 2% or lower.		
22	Linearity:	Please Specify		
23	Printer:	Must have in Built thermal printer		
24	Reagent Type:	Please Specify the Reagents.		
24.1	Machine with close Or open system:	Please Specify close Or open system.		
24.2	Cost of Soluations:	should be offered with the cost of soluations & consumbles per Test for Five Years.		
24.3	Cost of Soluations Per Test:	should be put cost of soluations, consumbles per Test		
24.4	Number of pateint's:	Please Specify Number of pateint's that we can test them by one kit's test		
25	Life Span for Machine:	10 Years		
26	Maintenance:			
26.1		2 Years Free Maintenece.		
26.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
26.3		Application Software and Interface Connection Included.		
27	Accessories:			
27.1		At the time of Installation of equipment to consignee, company should supply reagents for 2000 Test (Diluent, Lyse, cleaner)		
27.2		Online UPS 1KVA		
27.3		Dust Cover		
27.4		Set of Fuses.		
27.5		Tube Component for Waste		
27.6		Tube Component for Diluent		
27.7		Tube Component for Lyse		
27.8		20 L Bottle for Waste		
27.9		Set of Thermal Paper.		
28	Training:	Service Training for Bio Medical -Engineer and Users/Doctors		
29	Power Supply:	100-240 V, 50/60 Hz		
30	Other specification:	Please Specify Other Specifications.		
A-11	Item Description	Automated Micropipette ,Variable Type (Different Sizes)	طقم سحب العينات مختلف الأحجام	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	Designed:	Heavy Duty Designed, New Model.		
5.1	Quality:	High Quality.		
5.2	Supplier:	The Supplier is Required to be a Certified Distributor or Agent of The Company.		
6	A General Description:			
6.1		Automated Micropipette, Variable type (Different Sizes)		
6.2		Large		
6.3		Clear Digital Display		
6.4		Compatible with Wide Range of Tips		
6.5		High Degree of Accuracy and Precision		
6.6		Easy Maintenance and Calibration.		
7	Type:	Single Variable		
8	Each Set Contents Of:			
8.1		1 X 100 – 1000 µl		
8.2		1 X 20 – 200 µl		
8.3		1 X 10 – 100 µl		
8.4		1 X 5 - 50 µl		
9	Accessories:			
9.1		Complete With 500 Tips for Each Type.		
10	Life Span for Item:	7 Years		
11	Warranty:	Minimum of 1 Year.		
12	Other Specification:	Please Specify Other Specifications.		

A-12		Power Storge Unite (PSU) Battery Bank (3KW to 5KW) For X-Ray	نظام خفض الفولتية خاص بجهاز الأشعة نظام بطاريات	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy Duty Designed, New Model.		
5.2		The Machine should be of Latest Model and Must have Lattest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	the Supplier is required to be a Certified Distributor or Agent of the Company.		
6		This System is an Auxiliary Power System with built-in batteries that makes available to move X-ray system from place to place for X-ray exposure		
7	General Technical Specifications:			
7.1	Input :	AC 220V		
7.2	Output:	Approx. DC 380V / 7A~12A (12V / 7A Battery 28EA Batteries in series)		
7.3	Charging :	It is charged by connecting 2EA Batteries in series to 1 channel on PCB. There are 14 channels on PCB. Each 1 channel detects 2EA batteries and charges batteries when it becomes discharged		
8	Function Explanation of Overall Operation and Panel:			
8.1		When inputting AC 220V to AC INPUT, AC power is supplied to DVM, PCB and System. PCB that AC power is supplied detects Battery charging condition for operation.		
8.2	DVM :	DVM is to display whole voltage of voltage. When battery is fully charged, approximately DC380V can be output.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
8.3	BRAKER:	2ea Bracker are for AC input, DC output and system ON/OFF.		
8.4	Inlet , Outlet:	AC power is supplied to Inlet and the supplied AC comes out from Outlet.		
8.5	Terminal 1 (DC Output):	DC power output from this terminal. Voltage displayed on DVM comes out from this terminal.		
8.6	LED (RED) or LCD Screen :	Charging condition can be checked from LED or Screen,When batteries are charged LED is turned on but when charging is finished, LED is turned off. Or appearing on Screen		
9	Adjustment of PCB Voltage:			
9.1		PCB is set for battery charging voltage. Charging voltage per 12V battery is 13.65V ±0.25 as standard. The supplied power to PCB from 2EA batteries in series is 27.30V. Voltage can be done by adjusting each module VR1-14 on battery charger board		
10	Life Span for Item:	10 Years		
11	Warranty:	Minimum of 2 Years		
12	Other Specification:	Please Specify Other Specifications.		
A-13	Item Description	Dental Extraction Set	طقم خلع الاسنان	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates.		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	Designed:	Heavy duty Designed, New Model.		
5.1	Quality:	High Quality.		
5.2	Supplier:	the Supplier is required to be a Certified Distributor or Agent of the Company.		
6	Each Set Contents of:			
6.1		1 X Upper Premolar Wisdom & Roots Dental Extracting Extraction Forceps Mead #1.		
6.2		1 X Upper Molars Dental Extracting Extraction Forceps Mead #2.		
6.3		1 X Lower Incisors Dental Extracting Extraction Forceps Mead #3.		
6.4		1 X Lower Molar Dental Extracting Extraction Forceps Mead #4.		
6.5		1 X Dental Upper Incisors Cuspids Bicuspid Roots Extracting Extraction Forceps with Gold Handle		
6.6		1 X Dental Lower Incisors Cuspids Bicuspid Roots Extracting Extraction Forceps with Gold Handle.		
6.7		1 X Dental Extracting Extraction Lower Molar Cow Horn Forceps #23 With Gold Handle.		
6.8		1 X Dental Extracting Extraction Forceps #286.		
6.9		1 X Heidbrink Root Tip Pick Elevator Straight.		
6.1		1 X Heidbrink Root Tip Pick Elevator Right.		
6.11		1 X Heidbrink Root Tip Pick Elevator Left.		
6.12		1 X Apical Root Dental Elevator Del 301.		
6.13		1 X Apical Root Dental Elevator Del 302.		
6.14		1 X Apical Root Dental Elevator Del 303.		
6.15		1 X Apical Root Dental Elevator Del 77r.		
6.16		1 X Lindo Levien Serrated Elevator Right.		
6.17		1 X Lindo Levien Serrated Elevator Left.		
6.18		1 X Adson Dressing Forceps Serrated Fine Point 4.75"		
6.19		1 X Adson Tissue Forceps 1x2teeth Fine Point 4.75"		
6.2		1 X Iris Scissors 4.5" Straight.		
6.21		1 X Iris Scissors 4.5" Angled.		
6.22		1 X Mosquito Hemostat Forceps 5" Curved.		
6.23		1 X Crile Wood Needle Holder 6".		
6.24		1 X Crane Elevator Right.		
6.25		1 X Crane Elevator Left.		
6.26		1 X Periosteal Elevator Molt M9.		
6.27		1 X Periosteal Elevator Seldin S23.		
6.28		1 X Dental Mirror #5.		
6.29		1 X College Cotton Plier.		
6.3		1 X Dental Explorer Probe #5.		
6.31		1 X Minnesota Cheek Retractor.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
6.32		1 X Dental Syringe 18cc.		
6.33		1 X Scalpel Knife Handle #3.		
6.34		1 X Scalpel Knife Handle #4.		
7	Life Span for Item:	5 Years		
8	Warranty:	Minimum of 1 Year.		
9	Other Specification:	Please Specify Other Specifications.		
A-14	Item Description	Dental Restorative Set	طقم ترميم الاسنان	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates.		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan,USA and UK		
5	Designed:	Heavy duty Designed, New Model.		
5.1	Quality:	High Quality.		
5.2	Supplier:	the Supplier is required to be a Certified Distributor or Agent of the Company.		
6	Each Set Contents of:			
6.1		1 X Amalgam Burnisher.		
6.2		1 X Amalgam Carrier.		
6.3		1 X Amalgam Plugger.		
6.4		1 X Cement spatula		
6.5		1 X Chisel Double.		
6.6		1 X Chisel Single.		
6.7		1 X Cleoid Discoid.		
6.8		1 X Explorer.		
6.9		1 X Gingival Margin Trimmer.		
6.1		1 X Hatchet.		
6.11		1 X Hollenback Carver.		
6.12		1 X Mouth mirror w/handle #4.		
6.13		1 X Mouth mirror w/handle #5.		
6.14		1 X Periodontal Probe.		
6.15		1 X Spoon Excavator.		
6.16		1 X Caring Case.		
7	Life Span for Item:	10 Years		
8	Warranty:	Minimum of 2 Year.		
9	Other Specification:	Please Specify Other Specifications.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
A-15	Item Description	UltraSonic Scaling Unit		وحدة تنظيف وتبييض بالموجات فوق الصوتية
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan, USA and UK.		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy duty Designed, New Model.		
5.2		The Machine should be of Latest Model and Must have Latest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	the Supplier is Required to be a Certified Distributor or Agent of The Company.		
6		Microprocessor Controlled UltraSonic Scalar Should be Electric or Miniature size		
7		Peso Scalar: For use Periodontics, Endodontic,		
8		Power Boosting		
9	Pieces:	Scalar Hand Piece Autoclavable up to 135 C° with Internal Cooling		
10	Scaler Tips Set:	Standard Scaler Tips For Various Procedures Shall be Supplied with the Machine		
10.1		1 X Supragingival Scaling Tip		
10.2		1 X Subgingival Scaling Tip		
10.3		1 X Thixotropic Cementation Tip		
10.4		1 X Crown Removal & Inlay Tip		
10.5		1 X Endodontic Treatment Tip		
10.6		1 X Tip Replacement Wrench		
11	Output:			
11.1	Power Range:	25000- 35000		
12	Cycles Adjustable:			
12.1	Vibrating Frequency:	28 to 40 KHz		
12.2	Control:	Foot Switch Operated		
12.3	Water Pressure:	1 to 3 Bar.		
13	Life Span for Machine:	10 Years		
14	Maintenance:			
14.1		2 Years Free Maintenance.		
14.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
14.3		Application Software and Interface Connection Included.		
15	Power Supplay:	100 to 240 V ~ ±10%, 50/60 Hz Single phase (power cable Compatible with the Hospital electric outlet plug, 5 mt), Electrical Safety class 1		
16	Other Specification:	Please Specify Other Specifications.		

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No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
A-16	Item Description	Dental Amalgamator	جهاز خلط الحشوات	
No.	Technical Specifications	Min MOH Requirement	Bidders Offer	Notes
1	Manufacturer :	Please Specify Manufacturer Name.		
2	Model Number:	Please Specify Model Number of The Offered Equipment.		
3	Country Of Origin:	Please Specify Country of Origin of The Offered Equipment.		
4	Safety Standard:			
4.1	FDA Certificate Or CE Mark:	Required Certificates		
4.2	If The Machine Have CE Certificate Product Needs To Have Market Clearance For Either:	Australia, Canada, Europe Union, Japan, USA and UK.		
5	General Specification:	The unit shall be safe to use both for -the operator and the patient. Class I, Protection against leakage current, protection against electric shocks: class I, Waterproofnessl.		
5.1	Designed:	Heavy duty Designed, New Model.		
5.2		The Machine should be of Latest Model and Must have Latest Technology		
5.3	Quality:	High Quality, Safety, Ease of Use		
5.4	Supplier:	the Supplier is Required to be a Certified Distributor or Agent of The Company.		
6		Dental Amalgamator – Universal Mixing Unit for Dental Materials in Capsules With Digital Timer		
7		Homogeneous Mixing of the Materials with the Rotation Mixing Principle		
8		Virtually Void-Free and Particularly Easy Dispensing of The Material Owing to Centrifugal Movement.		
9		Capsules Are Simply Inserted Into the Self-Locking Capsule Holder		
10		Centrifugal Movement Can Be Switched Off if Required.		
11		It Can only Operate When the Protective Cover is Closed Ensuring Optimum Safety		
12		Extremely Silent Mixing		
13	Mixing Speed:	2850 Oscillations per Minute or Better		
14	Centrifuging Speed :	2950 oscillations Per Minute or Better		
15	Life Span for Machine:	5 Years		
16	Maintenance:			
16.1		2 Years Free Maintenance.		
16.2		Service Manual and Operation Manual {Hardcopy & Softcopy}		
16.3		Application Software and Interface Connection Included.		
17	Power Supply:	100 to 240 V ~ ±10%, 50/60 Hz Single phase (power cable Compatible with the Hospital electric outlet plug, 5 mt), Electrical Safety class 1		
17.1		Battery Operated With Minimum 8 Hours Battery Operation		
18	Other Specification:	Please Specify Other Specifications.		