

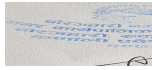
# 1. Microscope

SN	Purchaser's Specifications	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	<b>Binocular Microscope (LED)</b>			
	<b>Manufacturer</b>			
	<b>Brand</b>			
	<b>Type / Model</b>			
	<b>Country of Origin</b>			
<b>1</b>	<b>Description of Function</b>			
1.1	A microscope fitted with double eyepieces for vision with both eyes is a Binocular Microscope. The purpose in dividing the same image from a single objective of the usual compound micro-scope is to reduce eyestrain and muscular fatigue which may result from monocular, high-power microscopy			
<b>2</b>	<b>Operational Requirements</b>			
2.1	System complete with illumination system and research quality optics is required.			
<b>3</b>	<b>System Configuration</b>			
3.1	Binocular Microscope (LED) with all the necessary adapters and power cords.			
<b>4</b>	<b>Technical Specifications</b>			
4.1	<b>Optical System:</b> Infinitely corrected optics par focal, plan achromatic lenses with anti-fungal properties.			
4.2	Magnification must be 40X – 1000X.			
4.3	<b>Illumination:</b> Built in transmitted Koehler illumination. The Illumination must be modular type with LED illumination having life time more than 20,000 hours of operation.			
4.4	<b>Focusing:</b> <ul style="list-style-type: none"> <li>• Fine drive: 0.3mm /rotation.</li> <li>• Coarse drive: 44mm/rotation.</li> <li>• Total travel range is 15mm.</li> <li>• Stage height movement by roller guide (rock &amp; pinion).</li> <li>• Upper limit stopper.</li> <li>• Tension adjustable on coarse focus.</li> <li>• Adjustment knob.</li> </ul>			
4.5	Revolving nosepiece, Quintuple.			
4.6	<b>Observation tube:</b> <ul style="list-style-type: none"> <li>• Observation tube must be Binocular compensation free with Side &amp; top of design with two working heights at 385 &amp; 425 mm with an ergonomic head inclination at 30°.</li> <li>• Inter-pupillary distance adjustment must be from 48-74mm.</li> </ul>			
4.7	<b>Stage:</b> <ul style="list-style-type: none"> <li>• Mechanical stages must be low positioned coaxial control knobs: X-Y travelling area 140 x 135mm.</li> <li>• Travel range 75x30mm having graduated scale.</li> <li>• Must have filter holder and must be equipped with Blue, Green Yellow filters.</li> <li>• Must have rounded edges of the stage corners.</li> </ul>			
4.8	<b>Condenser:</b> <ul style="list-style-type: none"> <li>• Type – Abbe condenser.</li> <li>• N.A. – 0.9/ 1.5</li> <li>• Aperture iris diaphragm – built-in.</li> </ul>			
4.9	Base must be metallic, supplied with field lens unit, rubber feet and with external power adapter.			

4.10	The Objectives must be antifungal Plan Achromatic Objectives, 4x/0.1, 10x/0.25, 40x/0.65, 100/1.25 Oil immersion and 40x & 100x Objectives spring loaded. Ocular and Objective must have an antifungal coating with 4-position reverser, the inclined ocular tube at a ergonomically height of 30° (for convenient and fatigue free observation).			
4.11	Eye Pieces must be WF-10X/18.			
<b>5</b>	<b>Accessories, spares and consumables</b>			
5.1	<b>Accessories:</b> <ul style="list-style-type: none"> <li>Dust cover with integrated handle.</li> </ul>			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
<b>6</b>	<b>Operating Environment</b>			
6.1	The system offered shall be designed to store and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220-240V/ 50 Hz AC Single phase fitted with appropriate plugs to meet purchaser's country requirements. The power cable must be minimum 3 metres long. Power Consumption: approx. 50 watt.			
6.3	Shall be supplied with suitable voltage stabilizer to give constant output of 220-240V AC.			
<b>7</b>	<b>Standards and Safety Requirements</b>			
7.1	Must submit ISO 9001 or ISO 13485:2003/AC: 2007 <b>AND</b>			
7.2	CE or USFDA approved product certificate.			
<b>8</b>	<b>Installation and Commissioning &amp; User Training</b>			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
<b>9</b>	<b>Warranty &amp; Maintenance Service During Warranty Period</b>			
9.1	Comprehensive warranty for 2 years after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
<b>10</b>	<b>Authorization</b>			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
<b>11</b>	<b>Documentation</b>			
11.1	User (Operating) manual in English			
11.2	Certificate of calibration and inspection from factory.			
11.3	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

## 2. Hematology Analyzer (3 part)

SN	Purchaser's Specification	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	<b>Hematology Analyzer (3 part Differentiation)</b>			
	<b>Manufacture</b>			
	<b>Brand</b>			
	<b>Type/ Model</b>			
	<b>Country of Region</b>			
<b>1</b>	<b>Description of Function</b>			
<b>1.1</b>	Automated 3 part differentiation of WBC, blood cell counter is used to count WBC, RBC and platelets			
<b>2</b>	<b>Operating Environment</b>			
<b>2.1</b>	Automatic 3 part differentiation of WBC, blood cell counter that measures minimum 20 parameters			
<b>3</b>	<b>System configuration</b>			
<b>3.1</b>	Automatic 3 part differentiation of WBC, blood cell counter with complete unit with all standard accessories			
<b>4</b>	<b>Technical specification</b>			
<b>4.1</b>	<b>Principle:</b> Photo Electrical and impedance method. Impedance for counting WBC, RBC & PLT, cyanide free colorimetric(HGB) method			
<b>4.2</b>	<b>Parameter :</b> 3 part, 20 parameters, 3 Histograms			
<b>4.3</b>	<b>Report parameter :</b> Minimum 20 report parameter- WBC, LYM#, MID#,GRAN#,LYM%,MID%,GRAN%,RBC,HGB,HCT,MCV,MCH,MCHC,PLT,PCT,RDW-CV,RDW-SD,MPV,PDW,P-LCR and WBC,RBC,PLT(or equivalent)			
<b>4.4</b>	Should alarm for confirmed and seemingly abnormal samples, allow self-setting			
<b>4.5</b>	<b>Sample:</b> Three Sample mode: - Whole blood (aprox. 16uL), capillary blood (16ul approx.), pre diluted blood (approx. 20ul) and sample volume not more than 20ul.			
<b>4.6</b>	<b>Sample Method :</b> Open vial type			
<b>4.7</b>	<b>Throughput :</b> not less than 60 sample per hour			
<b>4.8</b>	<b>Performance :</b> WBC (Repeatability $\leq 2\%$ ,Linearity range 0.0-300x10 <sup>9</sup> /L), RBC (Repeatability $\leq 1.5\%$ ,Linearity range 0.0-8.5x10 <sup>12</sup> /L), HGB (Repeatability $\leq 1.5\%$ ,Linearity range 0.0-250g/L), MCV (Repeatability $\leq 1\%$ ), PLT (Repeatability $\leq 4\%$ ,Linearity range 0.0-3000x10 <sup>9</sup> /L)			
<b>4.9</b>	Easy operation by big touch screen function (Display at least 10")			
<b>4.10</b>	<b>Carry Over :</b> RBC, WBC,HGB <1%, PLT <1.5%			
<b>4.11</b>	Control Mode : L-J, X-R, X-B			
<b>4.12</b>	Daily Maintenance automatically by on & off. One key to remove error automatically.			
<b>4.13</b>	Automatic Sleep Status must be available			
<b>4.14</b>	Should support minimum reagent consumption. (Machine requires require Diluent & Lyse only in daily routine sample test )			
<b>5</b>	<b>Accessories, Spare and Consumables</b>			
<b>5.1</b>	All standards accessories, consumables and parts required to operate the equipment, including all standard tools and clearing and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above)			
<b>6</b>	<b>Operating Environment</b>			

6.1	The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The Conditions include power supply, purchaser's country requirements. The power cable must be minimum 3 meters long.			
6.2	Power supply 220V -240VAC, 50Hz fitted with appropriate plug.			
7	<b>Standards and Safety Requirements</b>			
7.1	CE/USFDA approved certificate for machine.			
7.2	Must submit ISO13485:2003/AC:2007 for Medical Devices AND			
7.3	Shall meet IEC 61010-2-081safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes.			
8	<b>Installation and Commissioning &amp; User Training</b>			
8.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.			
8.2	Must provide user training (including how to use and maintain the equipment)			
9	<b>Warranty &amp; Maintenance Service During Warranty Period</b>			
9.1	Comprehensive warranty for 1 years after installation			
9.2	During warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required			
10	<b>Authorization</b>			
10.1	Manufacturer's Authorization or Local Distributor Authorization (Manufacturer's Authorization to the main Distributor is also required in case of Local Authorization)			
11	<b>Documentation</b>			
11.1	User (Operating) manual in English			
11.2	Service (Technical / Maintenance) manual in English			
11.3	Certificate of calibration and inspection from factory.			
11.4	Shall accomplish all the Qualification Criteria of the bidder mentioned in the main bid document			

### 3. Semi Auto Biochemistry Analyzer

SN	Purchaser's Specification	Bidder's Compliance (Yes / No)	Reference Page No.	Remarks
	<b>Semi Auto Biochemistry Analyzer</b>			
	<b>Manufacturer</b>			
	<b>Brand</b>			

	<b>Type / Model</b>			
	<b>Country of Origin</b>			
<b>1</b>	<b>Description of Function</b>			
1.1	The Semi-automated Bio-chemistry Analyzer measures biochemical indexes by analyzing blood and other body fluid, then combines with other clinical information, to help diagnose disease, evaluate organs function.			
<b>2</b>	<b>Operational Requirements</b>			
2.1	Semi automated Chemistry Analyzer with built in software for the calculation and curve plotting. It must accept all types of curve fits like log-linear, Exponential, point to point.			
2.2	Memory for up to 200 chemistries minimum; programmable by the user.			
<b>3</b>	<b>System Configuration</b>			
3.1	Semi automated chemistry Analyzer with built in data processor & LCD touch screen, inbuilt thermal printer and RS 232 serial port for bidirectional communication or USB etc.			
<b>4</b>	<b>Technical Specifications</b>			
4.1	Light Source : 6V, 10W (Halogen Lamp or LED) or more			
4.2	Wavelength Range: Automatic selection by at least 7 position 2 position free filter wheel ranging 340 - 670 nm.			
4.3	Photometric Range: 0 to 3.0 Absorbance.			
4.4	<b>Calculation Modes:</b>			
a	Absorbance/concentration			
b	End point with factor and standard.			
c	Fixed time with factor and standard.			
4.5	Option for cuvette mode and aspiration mode.			
4.6	Aspiration system:			
4.7	Programmable sipping volume from 300-500 micro litre			
4.8	Flow Cell- 10 mm path length			
4.9	Temperature control by Peltier element			
4.1	Inbuilt 20 position of Heating Block should be available			
<b>5</b>	<b>Accessories, spares and consumables</b>			
5.1	<b>Accessories:</b>			
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.			
<b>6</b>	<b>Operating Environment</b>			

6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.			
6.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug.			
7	<b>Standards and Safety Requirements</b>			
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 AND			
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.			
7.3	Shall meet IEC 61010-2-081 safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes. Document evidence shall be submitted for evaluation			
8	<b>User Training</b>			
8.1	Must provide user training (including how to use and maintain the equipment).			
9	<b>Warranty</b>			
9.1	Comprehensive warranty for 1 years			
10	<b>Maintenance Service During Warranty Period</b>			
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.			
11	<b>Installation and Commissioning</b>			
11.1	The bidder must arrange for the equipment to be installed and commissioned by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.			
12	<b>Documentation</b>			
12.1	User (Operating) manual in English			
12.2	Service (Technical / Maintenance) manual in English			
12.3	Factory calibration certificate			

4. Centrifuge

S.N.	Purchaser's Specifications	Bidder's Compliance Sheet			
		Yes	No	Page No. in Catalogue	Remarks
	<b>Centrifuge (table top)</b>				
	<b>Manufacturer</b>				
	<b>Brand</b>				
	<b>Type / Model</b>				
	<b>Country of Origin</b>				
<b>1</b>	<b>Description of Function</b>				
1.1	Centrifuges are required in the laboratory to separate various components of Blood for analysis.				
<b>2</b>	<b>Operational Requirements</b>				

2.1	Bench top centrifuge				
<b>3</b>	<b>System Configuration</b>				
3.1	Centrifuge (bench top) with complete accessories.				
<b>4</b>	<b>Technical Specifications</b>				
4.1	Maximum speed: 4500 rpm. (approx.)				
4.2	Must be able to spin 8 tubes of 10 ml or 15ml capacity				
4.3	System must have safety features like lid lock.				
4.4	Must have a speed control knob.				
4.5	Swing rotor type.				
<b>5</b>	<b>Accessories, spares and consumables</b>				
5.1	Carbon brush: 10 pairs (of suitable number.)				
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).				
<b>6</b>	<b>Operating Environment</b>				
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				
6.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.				
<b>7</b>	<b>Standards and Safety Requirements</b>				
7.1	Must submit ISO 9001 or ISO 13485:2003/AC:2007 <b>AND</b>				
7.2	CE (93/42 EEC Directives) approved product certificate.				
<b>8</b>	<b>User Training</b>				
8.1	Must provide user training (including how to use and maintain the equipment).				
<b>9</b>	<b>Warranty</b>				
9.1	Comprehensive warranty for 1 year and extra 1 year free AMC				
<b>10</b>	<b>Maintenance Service During Warranty Period</b>				
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.				
<b>11</b>	<b>Installation and Commissioning</b>				
11.1	Supplier must accomplish proper installation and commissioning of the equipment on site.				
<b>12</b>	<b>Documentation</b>				
12.1	User (Operating) manual in English				
12.2	Service (Technical / Maintenance) manual in English				
12.3	List of important spare parts and accessories with their part numbers and costing.				
12.4	Certificate of calibration and inspection from factory.				