

Technical Specification for consumables of 3-part Hematology Analyser

Equipment Name: Hematology Analyser

Manufacturer: Genrui

Model: KT 60

S.N.	Items	Description
1	Diluent	To dilute blood samples to a concentration suitable for analysis.
2	Probe-cleaner	To remove blood residues, protein buildup, and fibrin from the sampling needle, tubing, and counting chambers.
3	Lyse Solution	To destroy red blood cells and release hemoglobin for accurate white blood cell (WBC) counting and hemoglobin measurement (HGB).

Note:

1. All reagents and consumables must be fully compatible with Genrui Hematology Analyser.
2. Should be manufacturer-recommended (OEM) or certified compatible reagents.
3. Shelf life: Minimum 12 months at time of delivery.
4. Packaging must be leak-proof and transport-safe.
5. Supplier must provide:
 - Product brochure/data sheet
 - Certificate of analysis (if applicable)
 - Compatibility certificate (for Genrui KT-60)
 - Manufacturer's Authorization Letter.

Semi-Automated Bio-Chemistry Analyser

S.N.	Purchaser's Specifications	Remarks
	Semi-Automated Bio-Chemistry Analyser	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	Description of Function	
1.1	The Semi-automated Bio-chemistry Analyser measures biochemical indexes by analyzing blood and other body fluid, then combines with other clinical information, to help diagnose disease, evaluate organs function, identify disease gene and determine the norm for future therapy.	
2	Operational Requirements	
2.1	Semi automated Chemistry Analyser with built in thermal printer.	
2.2	User programmable memory for minimum 150 test and storage of at least 2,000 sample test results.	
3	System Configuration	
3.1	Semi automated chemistry Analyser with inbuilt thermal printer data processor & LCD display, touch screen of at least 7"	
4	Technical Specifications	
4.1	Light Source: Quartz Halogen Lamp	
4.2	Photo detector: Silicon based or equivalent (range approx. 300-850nm)	
4.3	Wavelength Range: Approx. 340 – 600 nm.	
4.4	Wavelength Selection: Automatic	
4.5	Photometric Range: Approx. 0 to 4.0 Absorbance.	
4.6	Calculation Modes: Should have at least 5 calculation modes like <ul style="list-style-type: none"> • Absorbance/concentration • End point • Two points • Kinetic • biochromatic 	
4.7	<ul style="list-style-type: none"> • Incubation Time 1 to 999 second. • Interval Time 3 to 999 second 	
4.8	Quality Control - At least 2 controls per test.	
4.9	Calibration method- should have facility of calibration of at least factor, calibrator, multipoint calibration.	
4.10	Flow Cell- Temperature control by Peltier element with ambient temperature if 25, 30, 37 degree Celsius.	
4.11	Incubator- Incubator block with 37 degree Celsius with PID controlled.	
5	Accessories, spares and consumables	
5.1	Accessories: <ul style="list-style-type: none"> • Trial kits for various parameters, multi-calibrators and multi controls. -01 set 	
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).	
6	Operating Environment	
6.1	The system offered shall be designed 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	

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	cable must be at least 3 metre in length.	
7	Standards and Safety Requirements	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices 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.	
8	User Training	
8.1	Must provide user training (including how to use and maintain the equipment).	
9	Warranty	
9.1	Comprehensive warranty for 2 years from acceptance.	
10	Maintenance Service During Warranty Period	
10.1	During the warranty period supplier must ensure planned preventive maintenance (PPM) and corrective/breakdown maintenance whenever required.	
11	Installation and Commissioning	
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	Documentation	
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 number and costing.	
12.4	Manufacturer's authorization letter.	

Binocular Microscope Compound

S.N.	Purchaser's Specifications	Remarks
	Bright Field Binocular Microscope Compound	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	Description of Function	
1.1	Compound microscopes consist of four magnifying lenses. One can view individual cells, even living ones. It has high magnification.	
2	Operational Requirements	
2.1	Binocular compound microscope with illumination system is required.	
3	System Configuration	
3.1	Binocular Microscope Compound, complete system with complete accessories.	
4	Technical Specifications	
4.1	Body: Binocular, sturdy, stable base body with focus adjustment controls.	
4.2	Eye Piece: Paired, high quality, (the image of the object as seen through the binocular eyepiece must be well defined centrally in at least 2/3 field of view), achromatic, wide field, 10x without inbuilt pointer. The eyepiece must be aplanatic and have a minimum field number of 18. Dioptre adjustment must be present on one/ both eye pieces or on the eye piece tube.	
4.3	Objective: Four objectives 4x, 10x, 40x, 100x. <ol style="list-style-type: none"> 1. 10x and 40x objectives must have numerical apertures of 0.25 and 0.65 respectively and must be of spring-loaded type or otherwise. 100x must have numerical aperture of 1.25 and must be of oil immersion and spring-loaded type. Suitable prominent marking must be provided on 100x for easy identification. Unbreakable containers to be provided for storing the objectives. 2. All objectives must be wide field, achromatic and par focal. 3. Marking for the Objectives: Each objective must be engraved with the following information: <ul style="list-style-type: none"> • Name of the manufacturer • Magnification and numerical aperture, for example, 10x/0.25 4. Changing from one objective to another or reintroducing the same objective by rotation of the nosepiece, the object at the centre of the field must not appear displaced by more than 0.02 mm in the object plane in any direction. 5. All objective lenses should have antifungal treatment. 	
4.4	Nose Piece: Revolving nose piece to accommodate a minimum of three objectives with click stops. It must be provided with ribbed grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment. Extra ports if any must be fitted with dust proof metallic/ebonite caps.	
4.5	Stage: Uniformly horizontal, mechanical stage having dimensions of length 140 mm (+/- 20mm) with fine Vermeer graduations (minimum reading accuracy of 0.1 mm). The stage must be provided with spring loaded slide holder for exact positioning of specimen/ slide. It must be designed with convenient sub-stage vertical coaxial adjustment for slide manipulation. The stage must have ball-bearing arrangement to allow smooth travel in transverse directions i.e. 80 mm (+/-5mm) and front to back direction, 50mm (+/-5mm).	

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4.6	Sub-stage Condenser: Abbe-type condenser, numerical aperture (N.A.) 1.25 focusable with rack and pinion arrangement incorporating a spherical lens and an iris-diaphragm. The condenser must have a filter holder and removable/ swing in/ out blue filter (suitable for bright field Microscopy).	
4.7	Sub-stage illuminator: The system must have a build-in variable light source (Illuminator). This light source must have a 6/12 V LED lamp. The circuitry for the light source must include a constant voltage supply. The system must be provided on-off switch and intensity control. The lamp must be provided with facility for easy replacement.	
4.8	Power Supply: Voltage 220 V, 50 Hz AC. Must have one on-off power switch, 3 core power cord with a 3 point male plug. The system must have an inbuilt protective/ safety device to withstand fluctuations of voltage from 140 V to 280 V.	
4.9	The fuse for the lamp must be easily accessible to the operator.	
4.10	A Plano-concave mirror in fork mounting must be supplied which would be attachable to the base for field use (where power is not available).	
4.11	The Illuminator must have a build-in field diaphragm for Kohler illumination.	
4.12	Eye Piece Tubes: Binocular eye piece tubes, inclined at 45 degrees, rotatable through an angle of 360 degrees, having inter-pupillary distance range of 54-74 mm or wider, covering the above mentioned range.	
4.12	Focusing Knob: Co-axial coarse and fine focusing knobs capable of smooth fine focusing movement over the full range of coarse travel. The fine focusing movement must have sensitivity of two microns or less (finer) over the entire coarse focusing stop safety arrangement must be provided.	
4.13	All optical parts including objectives, eye pieces and prisms must have anti-reflective coating which also gives anti-fungal property.	
4.14	All metallic parts must be corrosion-proof, acid-proof and stain-proof.	
4.15	Each Microscope must be supplied with Blue filters. The Blue filter must be packed in the ox and not fixed on the Microscopes.	
5	Accessories, spares and consumables	
5.1	Accessories: <ul style="list-style-type: none"> • 25 ml immersion oil bottle – 01 no. • Roll of lens tissue paper – 1 roll • Lens cleaning solution – 100 ml. • Anti-static cleaning brush – 01 no. 	
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).	
6	Operating Environment	
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, 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.	
7	Standards and Safety Requirements	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND	
7.2	CE or USFDA approved product certificate.	
8	User Training	

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8.1	Must provide user training (including how to use and maintain the equipment).	
9	Warranty	
9.1	Comprehensive warranty for 2 years after acceptance.	
10	Maintenance Service During Warranty Period	
10.1	During the warranty period supplier must ensure corrective/breakdown maintenance whenever required.	
11	Installation and Commissioning	
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.	
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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.	