Microscope, Binocular, Compound

S.N.	Purchaser's Specifications	Bidder's Offer
	Microscope, Binocular, Compound	
	Manufacturer	
	Brand	
	Type / Model	
	Country of Origin	
1	**Description of Function**	
1.1	Compound microscopes consist of two or more than two magnifying lenses. One can view individual cells, even living ones. It has high magnification.	
2	**Operational Requirements**	
2.1	Binocular compound microscope with in-built 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** • Binocular eyepiece. • The observation tubes can be adjusted both upper and lower with a viewing angle tilt of 30° or 45° • Rotatable 360° • Adjustable interpupillary distance in the range of at least 55–75 mm. • Eyepiece - Widefield - 10x magnification. • Eyepiece dioptre adjustment in both ocular lenses • Eyepiece with a field of view (FOV) greater than or equal to 18 mm. Eyepieces suitable for both eyeglass and non-eyeglass wearers.	
4.3	**Objective:** At least four objectives: 4x, 10x, 40x, 100x. - Plane Achromat 4X/0.1 - Plane Achromat 10X/0.25 - Plane Achromat 40X/0.65 - Plane Achromat 100X/1.25 (oil) • Objectives with a magnification of 20x or greater shall have a spring-loaded, retractable nose cone assembly with a retraction stopper. • If not pre-installed, objectives shall be delivered in transparent, break-resistant, tightly closed containers, with the objectives fixed in a stable position. • All objectives shall be engraved with the following information: o Name of the manufacturer o Magnification and numerical aperture, for example, 10x/0.25 o 100x objective must be engraved with the word 'Oil'. 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.	
4.4	**Nose Piece:** Revolving nose piece to accommodate a minimum of four 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:** • Mechanical stage • Rectangular, ceramic coated (or better corrosion-resistant material), uniformly horizontal. • Minimum stage size: 160 x 140 mm • Movement range of at least 75 x 50 mm (X-Y), with knobs for right- or left-handed operation. The stage shall be provided with a spring-loaded slide holder for the safe and precise positioning of slides and left-handed operation.	
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).	

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4.7	**Illumination System:** • Light source: LED • Adjustable light and brightness intensity • LED lifespan, no less than 20,000 hours Type of illumination system: Transmitted Koehler illuminator	
4.8	**Focusing Knob:** • Coaxial coarse and fine focusing knobs capable of smooth fine focusing movement over the full focusing range. • Tension adjustment: coaxial • Fine focus adjustment in increments of 2.0µm or smaller. • Focusing knobs on both sides of the microscope. • Z- Focusing stop safety	
4.9	All optical parts including objectives, eye pieces and prisms must have anti-reflective coating which also gives anti-fungal property.	
4.10	All metallic parts must be corrosion-proof, acid-proof and stain-proof.	
4.11	Each Microscope must be supplied with Blue filters. The Blue filter must be packed in the box and not fixed on the Microscopes.	
5	**Accessories, spares and consumables**	
5.1	**Accessories:** • Led light – 2 nos. • Fuses – 2 nos. • 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 ISO13485:2016 for Medical Devices **AND**	
7.2	CE or USFDA approved product certificate.	
8	**User Training**	
8.1	Must provide onsite 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.	
12	**Documentation**	
12.1	User (Operating) manual in English.	
12.2	Service (Technical / Maintenance) manual in English.	
12.3	Certificate of calibration and inspection as per manufacturer guideline.	