

Specifications for High-end upright fluorescence microscope (with phase contrast and camera attachment)	Criteria Matching(Yes/No)	Remarks
Make and Model		
<p>1. Microscope body: Upright Motorized Microscope base body with Motorized Z focus with resolution at-least 25nm or better. Ergonomic design body with uniform illumination throughout the field of view including periphery. It should have built-in filters with percentage transmission as required.</p>		
<p>2. Optical System: Infinity corrected optical system. Optical system should have uniform light distribution throughout the field (Fly eye optics/ similar technology).</p>		
<p>3. Eyepiece tube: Motorized Quadrocular tilting eyepiece tube (Field of View 25mm FOV) with camera port. Should having feature motorized changeover optical path light distribution (Eyepiece/ upper port/ Rear Port: 100/0/0, 0/100/0, 0/0/100). Ergonomic and eyepiece can be adjusted range from 15⁰ - 35⁰. It should have <u>Motorized ZOOM PORT with feature second back side camera port. Motorized zoom port has Motorized 0.6 to 2X optical Zoom system.</u></p>		
<p>4. Eyepiece: Eyepiece of 10X magnification with at-least 25mm FOV or better</p>		
<p>5. Illumination: Microscope stand with high power illumination 12V 100watt Halogen / High power LED light source with high color rendering LED light source with life span over 40,000 – 50,000 hrs.</p>		
<p>6. Control: Should provide transmitted light on/off switch, intensity control dial. Base body comes with motorized control buttons and status display. All motorized component should be control through controller. All required cable and controller should provide.</p>		
<p>7. Condenser: Motorized universal condenser (with 07 position) for Bright field, Phase contrast, DIC, dark-field observation. Suitable magnification range 2x - 100x magnification.</p>		
<p>8. Stage: Motorized XY stage resolution 0.1 micrometer should have joystick controller for motorized XY Stage.</p>		
<p>9. Nosepiece: Motorized 06 position revolving nosepiece with DIC Slot to accommodate 06 nos. of objective at a time.</p>		
<p>10. Objective: High quality objective magnification. Higher NA is preferred.</p>		
<p>a) Plan Fluor 4X N.A 0.13, WD > 15.0 mm with transmittance % graph ≥ 90% at 500nm wavelength, Suitable for Bright field, Fluorescence.</p>		
<p>b) Plan Fluor 10X N.A 0.3, WD 15.0 mm with transmittance % graph approx. ≥ 85% at 500nm wavelength, Suitable for Bright field, Phase, Fluorescence.</p>		

c) Plan Achromat 20X N.A 0.8, WD 0.8 mm, Spring Loaded with transmittance % graph approx. > 85% at 500nm wavelength, Suitable for Bright field, Fluorescence.		
d) Plan Achromat 40X N.A 0.95, WD 0.2 mm, Spring loaded, with transmittance % graph approx. > 85% at 500nm wavelength, Suitable for Bright field, Fluorescence.		
e) Plan Achromat 60X N.A 0.95, WD 0.2-0.1 mm, Spring loaded, Cover glass thickness correction, with transmittance % graph approx. > 85% at 500nm wavelength, Suitable for Bright field, Fluorescence & DIC.		
DIC accessories should be provided.		
f) Plan Achromat 100X Oil, N.A 1.45, WD 0.13 mm with transmittance % graph approx. > 80% at 500nm wavelength, Suitable for Bright field, DIC, Fluorescence Vis and NIR range.		
DIC accessories should be provided.		
11) Motorized Fluorescence Attachment: Motorized at-least 06 Position fluorescence rotating turret.		
12) Fluorescence Illumination: LED Fluorescence illumination should be same make as of the microscope, for reflected light at least $\geq 20,000$ hours, with four different wave lengths, i.e. 385nm, 475nm, 550nm, and 621 nm. The LED should be operable through software/controller to facility to turn on or off in required combinations. Adjustment of each LED intensity can be control from 0 to 100%. It should be Vibration free, maintenance free, alignment free, No warm-up time is required.		
13) Fluorescence filter: Fluorescence filter for DAPI, FITC and TRITC.		
14) CAMERA: High Resolution scientific color CMOS camera (same make of the microscope) with ≥ 21 Megapixel resolution, pixel size of at-least 5.5 X 5.5 micrometer or better, Sensor dimension 35.5 X 23.5 mm, active pixel ≥ 6000 X 3500 resolution; Exposure time 100 micro sec – 120 sec, Bit depth ≥ 10 -12 bit; Sped ≥ 60 FPS, camera should have color and monochrome (optical) option for color and weak fluorescence imaging. Bidders can quote the single or two camera as per product / technology available.		
15) Software: Licensed imaging software (same make of the microscope) Should be compatible with the microscope and camera, Image Acquisition, Time Lapse Imaging, Z-Stack, Multi-channel Fluorescence, Fluorescence signal Denoise AI function, Annotation, 2D / 3D View, Morphology, volume view, 2d/ 3D large image stitching, EDF (extended depth of field), Auto-measurement , Report Generator facility, Software should be capable to make XY stitching and also z stack merging. Should be from same make as the microscope.		

16.) Computer: Branded Latest suitable i7 Processor, 16-32 GB RAM, 1TB SSD, Latest suitable Win OS, 2GB dedicated graphics card, external 2TB portable hard disk, Keyboard, mouse, USB 3.0 port, 24 inch screen. Suitable Online UPS with 30 min backup for complete system including microscope. Local item with standard manufacturer warranty.		
17) Certificate: International quality standard certification ISO 9001: 2015, CE, USFDA, medical device directive certificate.		
18.) Service center: Service center in Delhi –NCR. Detail should be provided.		
19) Instrument detail should be verify on Manufacturer website.		
Company must provide a compliance statement supported by technical literature and website.		
Authorisation certificate from the OEM must be included in the technical bid		
Unpacking and shifting of the instrument including manpower during installation must be in the vendor scope.		
User list must be enclosed for the quoted model supplied to any other institute/Organization in Delhi and NCR.		
Certificate for spare availability upto 10 years for quoted model to be provided from OEM alonwith the technical bid.		
Min.3 Customer satisfactory / performance certificate for specific quoted model from the end user should be included in the quote.		
Warranty 5 years including all spares , PM kit and calibrations of instrument on regular basis as and when required.		
Consumables required during installation to setup the new instrument must be quoted along with the instrument.		
AMC & CMC Charges for the next 5 years after standard warranty must be quoted in optional item		