## SPECIFICATIONS FOR PENTA HEAD MICROSCOPE WITH DIGITAL IMAGING

- 1. Frame: Ergonomic design microscope with modular frame with Analyzer/Polarizer.
- 2. Optical System: Infinity corrected the optical system.
- 3. Illumination: The microscope should have an ergonomic stand with at least a 14-Watt LED transmitted light source with a life of at least 50,000 hours (Brightness: equivalent to or brighter than a 100W halogen lamp) or 100-Watt Halogen with 10 spare Halogen bulb of the same make.
- 4. Observation Tube: Ergonomic Head with adjustable angle, Widefield trinocular eyepiece tube with 10X eyepiece and 22mm or higher FOV. Phototube with 100:0/50:50 Light split with sliding prism.
- 5. Nosepiece: Reversed Six position revolving nosepiece to accommodate six objectives at a time with a slot for Analyzer/Polarizer.
- 6. Objectives:
- a. Plan achromat objective 2X (N.A. 0.06 or higher)
- b. Plan Semi apochromat objective 4X (N.A. 0.13 or higher)
- c. Plan Fluorite objective l0X (N.A. 0.30 or higher)
- d. Plan Fluorite objective 20X (N.A. 0.50 or higher)
- e. Plan Fluorite objective 40X (N.A. 0.75 or higher)
- f. Plan Semi apochromat objective 100X oil (N.A. 1.30 or higher)
- g. All objectives should be compatible with BF, OF and FL Transmittance of objectives should be more than 90% in the visible range and the transmittance curve should be provided along with the bid which is supported by their website.
- 7. Stage: X and Y rectangular mechanical stage motion control on the right-hand side with the capacity to hold two slide glasses at a time. The stage should be ceramic coated.
- 8. Condenser: Swing out condenser NA 0.90
- 9. Multi Head attachment: 4 additional ergonomic viewing heads with adjustable angle apart from the primary user with MTH splitter, MTH relay units, and support stands. Upgradable up to at least 10 Heads in the future. In all viewing heads, illumination should be as strong as in the master objectives. Both eyepieces should have diopter adjustments for all secondary observers and should have FOV 22mm and above.
- 10. Colored pointer: multicolor (minimum 2), intensity controllable LED Colored indicator should be supplied with the microscopes. The control buttons should be convenient and sensitive. Arrow control stick, arrow rotation dial,/and color selection dials should be

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provided.

- 11. Polarizer & analyzers: One set of polarizers and analyzers should be provided.

  Analyzer socket should be there in the nosepiece.
- 12. Digital Camera: 5 MP color digital camera for microscope having CMOS Sensor and
- 13. HDMI Output, Live frame rate of minimum 30 fps @ HDIM {1920 x 1080), Camera should have the capability to connect via Wi-Fi/WLAN also. Having annotation function of Text, Arrow, Rectangle, Circle and measurement functions of Line: Length measurement, Parallel lines, Circle: Diameter, Area, perimeter measurement, Polygon: Area, perimeter measurement, Point: Coordinates, number, Scale bar.
- 14. Branded Computer system with i5 Intel core processor, 8GB RAM, DVD/CD ROM, 1TB SDD, 64 Bit system with windows 8 or better operating system, 51" LED Monitor/TV should be provided. A suitable 1 KVA UPS should be provided with the system. A suitable sturdy Table and chair for the Installation of the Microscope should be provided.

## **Conditions for tenderer:**

- 1. All accessories should be from the same Original Equipment Manufacturer for the main unit.
- 2. Instruments must be ISO certified and a copy should be enclosed. (The ISO Certificate must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
- 3. Should be USA FDA and European CE be approved by 4 digits notified body.
- 4. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
- 5. Installation process should be performed by O.E.M trained service engineers/ service representatives on OEM letterhead or Service Report within 15 days of supply, with the mandatory provision of providing preventive services visit of OEM trained Service Engineer/ Service Representative quarterly per year till the completion of warranty period (i.e., 20 visits for the first 05 years) & further quarterly visits (04 visits/year) year till the completion of CMC period.

6. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.

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- 7. All the technical specifications in the compliance statement must be supported by Original Literature from the firm/ O.E.M with highlighting Numbering & flagging of all technical certificates.
- 8. Offered Equipment should have a strong Government Installation base.
- 9. Offered Equipment should have a Regional Sales Service Centre of the Original Equipment Manufacturer in the region for a 95 % uptime guarantee.
- 10. For the offered main unit, the essential, optional required consumables'/accessories' shelf life should be declared on the Original Equipment Manufacturer's letterhead.
- 11. In case of technical snag/failure/breakdown the response time for the inspection should be within 24 hours and repair within 05 days otherwise provide a service machine/ alternate arrangement to be made till the period of recovery of the breakdown of the unit, failing which attracts penal action as per the decision of institute/ hospital.
- 12. For offered equipment the Training of technical staff and users should be performed by Original Equipment Manufacturer trained Service Engineers at the proper designated place- at bidders' cost.
- 13. Company should quote their latest model and need to provide an affidavit for the same.
- 14. As a tendering process the Demonstration of the offered Equipment is Mandatory at hospital/institute premises or other designated places at the bidder's cost.
- 15. The bidder must comply with the General Financial Rules and their modifications if any issued by the Government of India- 2017.
- 16. Any bidder from a country that shares a land border with India will be eligible to bid in the tender only if the bidder is registered with the Competent Authority (i.e., Registration certificate issued by the Ministry of Commerce and Industry (Department for Promotion of Industry and Internal Trade- DPIIT after October 2020). If any such bidder is not registered with DPIIT they will be liable for technical disqualification.
- 17. Principal (OEM) must authorize only one agent to be quoted in the bid otherwise multiple quotes through different agents in the same bid will be canceled.
- 18. The Bidder and its OEM both have to submit a notarized affidavit on the Indian Non-Judicial Stamp Paper of Rs.100/- that the bidder has not quoted the price higher than the current financial year and last financial year supplied to any government Institute/ Organization/ reputed Private Organization. OEM also has to submit that the price

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quoted by the bidder in the bid is on its behalf and the lowest in the current and last financial year in the country. Therefore, if at any stage it has been found that the supplier and its OEM have quoted lower rates than those quoted in this bid; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the Institute (the purchaser). If such an affidavit is not submitted, the bid will be outrightly rejected. (Part of technical bid).

- 19. Guarantee / Warranty Period: Separate offers of Comprehensive Maintenance Contract (CMC on main equipment) and Annual Maintenance Contract (AMC on main equipment) for further 5 years after expiry of 5 years of warranty (i.e., 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> years) in rupees only (and on basis of percentage of price) should be included in a financial bid in the absence of which the offer is liable to be rejected. Payment for CMC/AMC shall be made only after the expiry of the warranty of 5 years, in case the Institute (the purchaser) decides for availing of CMC/AMC services. Contract for CMC/AMC shall be decided on expiry of warranty but rates (not more than 5% inclusive of all taxes for 6<sup>th</sup> to 10<sup>th</sup> year) will be frozen at the price of an issued purchase order before the release of payment by the Institute (the purchaser). However, the Institute (the purchaser) may decide not to enter into any CMC/AMC contract without assigning any reason for the same, which shall be binding upon the bid.
- 20. Should provide 5-year CMC. CMC cannot be more than 5% of the contract value.
- 21. System configured application-specific educational video tutorials shall be provided as standard with the system.
- 22. Details of service outlet in India to render services during 5 years warranty period.
- 23. The principals must give a certificate if the supplier/vendor is changed during the course of the guarantee/warranty period, the principals would be responsible for the upkeep/maintenance of the quote/supplied equipment, besides honouring all the terms and conditions of CMC/AMC in letter and spirit.

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