



Date: - 18<sup>th</sup> February 2016

**Corrigendum**  
**for**  
**Equipments required for Department of**  
**Pathology**

NIT Issue Date : 15<sup>th</sup> January 2016.  
NIT No. : Admn/Tender/Pathology /2015-AIIMS.JDH  
Pre Bid Meeting held on : 03<sup>rd</sup> February, 2016 at 11:00 AM  
Last Date of Submission : 19<sup>th</sup> February, 2016 at 03:00 PM  
Revised Last Date of Submission : 03<sup>rd</sup> March, 2016 at 03:00 PM

**1. The following revised and Additional specification will be Added:-**

**1. Page No. 02, Chapter-I, S. No 12:**

12.	Admn/Tender/Pathology/12/2015-AIIMS.JDH	<b>Inverted microscope</b>	1	14,000
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**Read**  
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**2. Page No. 11, Item No. 1, Fully automated urine analyser (Chemistry & sediments), Point No. 02,**

**For**

Chemistry parameters required to be provided should be glucose, protein, blood, bilirubin, urobilinogen, ph, ketones, nitrate, leukocyte, creatinine, albumin, alb/ cre ratio, pro/ cre ratio.

**Read**

Chemistry parameters required to be provided should be glucose, protein, blood, bilirubin, urobilinogen, ph, ketones, nitrate, leukocyte, creatinine & albumin.

**3. Page No. 11, Item No. 1, Fully automated urine analyser (Chemistry & sediments), Point No. 04,**

**For**

The analyser should be based on fluorescence flowcytometry for accurate measurement of urine parameters such as rbc, wbc, epithelial cells, cast and bacteria..

**Read**

The analyser should be based on fluorescence flowcytometry/ Digital flowcytometry for accurate measurement of urine parameters such as rbc, wbc, epithelial cells, cast and bacteria.

**4. Page No. 11, Item No. 1, Fully automated urine analyser (Chemistry & sediments), Point No.05**

**For**

The instrument should provide scattergrams and histograms for easy interpretation.

**Read**

The instrument should provide scattergrams and histograms **or** actual images for easy interpretation.

**5. Page No. 11, Item No. 1, Fully automated urine analyser (Chemistry & sediments), Point No.10**

**For**

The equipment should have the capability to load two different types of strips for better flexibility in analysis.

**Read**

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**6. Page No. 11, Item No. 1, Fully automated urine analyser (Chemistry & sediments), Point No.14**

**For**

Data storage of 10000 samples including graphics & 24 qc files with 300 data points each should be available.

**Read**

Data storage of 10000 samples including graphics & multiple qc files, with 300 data points each should be available.

**7. Page No. 11, Item No. 2, Patelet Aggregometer, Point No.01**

**For**

Should be an Automatic optical Aggregation system with two channels and expandable to four channels, for aggregation tests in PRP (Plasma Rich Plasmin) or washed platelets.

**Read**

Equipment should have Automatic optical/Whole blood/Luminescence Aggregation system mode systems.

**8. Page No. 11, Item No. 2, Patelet Aggregometer, Point No.07**

**For**

The equipment should be supplied with:

- a. UPS-1
- b. Startup reagents (1pack size)
- c. Cuvettes (at least one set)
- d. Magnetic stirrer (No-2)
- e. Pens-No-2

**Read**

The equipment should be supplied with:

- a. UPS-1
- b. Appropriate branded PC and a color laser printer
- c. Startup reagents (1pack size) with total set of agonists including Ristocitin cofactor assay kit.
- d. Cuvettes (at least one set)
- e. Magnetic stirrer (No-2)

**9. Page No. 12, Item No. 5, Faculty Microscope, Point No.09, ,Camera & Software:**

**For**

Digital Cooled CCD Camera 5MP, with 10bit digitization, 2048x1500. Exposure time 1.6 ms to 17.8min in 1us increments with Fire wire port. Software to capture and image processing

**Read**

Digital Cooled CCD/CMOS Camera 3MP, with 10bit digitization, 2048x1500. Exposure time upto 8min in 1us increments with Fire wire port/ USB2. Software to capture and image processing.

**10. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.03**

**For**

Motor and hand piece should be separate and connected by a long cord not less than 8 feet long so that motor is not required to be lifted every time.

**Read**

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**11. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.05**

**For**

Hand piece with safety flange permitting from grip and should stay cool during operation.

**Read**

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**12. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.06**

**For**

Easily detachable hand piece- autoclavable.

**Read**

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**13. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.07**

**For**

Both hand and foot switch for on and off operation.

**Read**

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**14. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.10:**

**For**

Large section blade 6.3 cm width a stem of 1.1 cm: 1 Nos.

**Read**

Large section blade approx 6 cm width a stem of approx 1 cm: 4 Nos.

**15. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.11:**

**For**

Round blade of 6.3 cm cuts to a depth of 44 mm: 1 Nos.

**Read**

Round blade of approx. 6 cm cuts to a depth of approx. 40 mm: 4 Nos.

**16. Page No. 13, Item No. 6, Hand Held Electric bone cutter, Point No.14:**

**For**

Should be supplied with easily available disposable bone dust bags.

**Read**

Should be supplied with easily available disposable four bone dust bags.

**17. Page No. 13, Item No. 7, Fully automated motorized microtome, Point No.02, Setting values:**

**For**

- 0.5 to 5 micron in 0.5 micron increments
- 5 to 20 micron in 1 micron increment
- 20 to 60 micron in 5 micron increment
- 60 to 100 in 10 micron increment

**Read**

- 0.5 to 5 micron in 0.5 micron increments
- 5 to 20 micron in 1 micron increment

**18. Page No. 13, Item No. 7, Fully automated motorized microtome, Point No.04, Coarse feed:****For**

Motorised coarse feed in two steps i.e. 300 micron/sec and 900 micron/sec.

**Read**

Motorised coarse feed in single/two steps i.e. 300 micron/sec and 900 micron/sec.

**19. Page No. 14, Item No. 7, Fully automated motorized microtome, Point No.01:****For**

Equipment should be supplied with 5 packets of disposable blades, 2 sets of brushes

**Read**

**Point no.10** -Equipment should be supplied with 5 packets of high profile disposable blades, 2 sets of brushes.

**20. Page No. 14, Item No. 7, Fully automated motorized microtome, Point No.02:****For**

The Equipment should be USA-FDA/European –CE approved.

**Read**

**Point no.11**-The Equipment should be US-FDA/European –CE approved.

**21. Page No. 14, Item No. 7, Fully automated motorized microtome, after Point No. 12:****Add Point No. 13**

The equipment should be supplied with universal cassette clamp.

**22. Page No. 14, Item No. 9, Biosafety cabinet with fume hood, Point No.01:****For**

Manufacturer shall provide a certified copy of the personnel, product, and cross contamination(biological) tests, equivalent to or more demanding than as specified in NSF International Standard 49, performed on the unit selected from the corresponding statistical sample.

**Read**

Manufacturer shall provide a certified copy of the personnel, product, and cross contamination(biological) tests, equivalent to or more demanding than as specified in NSF International Standard 49 for Type A2 Cabinet.

**23. Page No. 15, Item No. 9, Biosafety cabinet with fume hood, Point No.08:****For**

The unit shall have standard HEPA filters for a protection effectiveness of 99.99% on 0.3 micron size particles by DOP test. Filters should be serviceable from front of cabinet.

**Read**

The unit shall have standard HEPA/ULPA filters for a protection effectiveness of 99.99% on 0.3 micron size particles by DOP test. Filters should be serviceable from front of cabinet.

**24. Page No. 15, Item No. 9, Biosafety cabinet with fume hood, Point No.09:**

**For**

The cabinet shall have a reduced airflow energy-saving mode which is active when the view screen is closed. This mode of operation shall reduce energy consumption by at least 50% and still meet the product and personnel protection testing requirements of NSF/ANSI 49. Particle testing while the cabinet is in this mode shall exceed the requirements for ISO Class 5 conditions for 0.3 micron particles. A connection shall be provided for indicating the Ready SAFE™ status to the facility building management system.

**Read**

The cabinet shall have a reduced airflow energy-saving mode which is active when the view screen is closed. This mode of operation shall reduce energy consumption by at least 50% and still meet the product and personnel protection testing requirements of NSF/ANSI 49. Particle testing while the cabinet is in this mode shall exceed the requirements for ISO Class 5 conditions for 0.3 micron particles.

**25. Page No. 15, Item No. 9, Biosafety cabinet with fume hood, (Construction), Point No.04:**

**For**

Interior work area shall be 277/16" high.

**Read**

Interior work area should be approximately 4 x 2 x2ft.

**26. Page No. 16, Item No. 9, Biosafety cabinet with fume hood, (Construction), Point No.15:**

**For**

Cabinet shall be equipped with a stainless steel ball valve to allow safe and effective draining of spills.

**Read**

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**27. Page No. 16, Item No. 9, Biosafety cabinet with fume hood, (Construction), after Point No.21**

**Add Point No.22** There should be provision for electric and Nitrogen inlets.

**28. Page No. 16, Item No. 10, Liquid nitrogen storage tank, Point No.01:**

**For**

Capacity: 50 Litres

**Read**

Capacity- one system of 100 litres or more and one backup system of 50 litres, both the systems should be from the same manufacturer.

**29. Page No. 16, Item No. 10, Liquid nitrogen storage tank, Point No.11:**

**For**

Design Temperature: -196 Degrees Celsius

**Read**

Design Temperature: -180 Degrees Celsius

**30. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after Point No.14:**

**Add Point No.15**

The equipment should be cCS USA/ European CE Approved.

**31. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after Point No.15:**

**Add Point No.16**

A roller base is also required for moving the container from one place to another.

**32. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after Point No.16:**

**Add Point No.17**

A retriever for retrieving vials, ampoules and cryoboxes from cryogenic vessels should also be supplied with the system.

**33. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after Point No.17:**

**Add Point No.18**

There should be available a low level alarm system.

**34. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after PointNo.18:**

**Add Point No.19**

The equipment should be quoted with a spare liquid nitrogen tank of capacity 100 litres or more.

**35. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after Point No.19:**

**Add Point No.20**

The equipment should be quoted alongwith the following consumables:

- a. Cryovials, threaded 2ml, 10 boxes of 96 vials each.
- b. Cryoboxes for 2 ml vials each with a capacity to hold 96 vials Nos 10 boxes.
- c. Stainless steel racks for storing cryoboxes Nos 4
- d. Cryogloves- Two pairs.

**36. Page No. 16, Item No. 10, Liquid nitrogen storage tank, after Point No.20:**

**Add Point No.21**

The equipment should be quoted with availability of an optional wireless alarm system which should be compatible with the system.

**37. Page No. 17, Item No. 11, Carbon Dioxide Incubator, Point No.01:**

**For**

One chamber CO<sub>2</sub> incubator with work chamber, inner total volume 175 to 200 litres.

**Read**

One chamber CO<sub>2</sub> incubator with work chamber, inner total volume 150 to 200 litres.

**38. Page No. 17, Item No. 11, Carbon Dioxide Incubator, Point No.03:**

**For**

Temperature range: +3 degrees C above ambient to +55 degrees C above ambient.

**Read**

Temperature range: +5 degrees C above ambient to +55 degrees C above ambient.

**39. Page No. 17, Item No. 11, Carbon Dioxide Incubator, Point No.05:**

**For**

Built in HEPA filter Airflow System (100% HEPA filtered air within 1 minute) with internal blower but without FAN inside.

**Read**

Built in HEPA/ULPA filter Airflow System (100% HEPA or equivalent filtered air within 1 minute) with internal blower but without FAN inside.

**40. Page No. 17, Item No. 11, Carbon Dioxide Incubator, Point No.23:**

**For**

6x50 ml Highconic rotor with 6 nos. 15 ml conical tube adapter should also be provided.

**Read**

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**41. Page No. 18, Item No. 11, Carbon Dioxide Incubator, Point No.25:**

**For**

Should be FDA/ CE/ BIS approved product.

**Read**

Should be US FDA/European CE approved product.

**42. Page No. 18, Item No. 12, Inverted microscope, Technical Specification:**

**For**

- 1) **Inverted Frame:** Motorized Ergonomic Stand with inbuilt Z-focus drive with minimum step resolution of 10-15 nm or better. The system should have a dedicated external TFT/LCD touch screen capable of controlling all motorized functions of microscope. The system should have an IR based Laser/LED focus drift compensator for long term in focus time lapse imaging controlled by both touch screen panel and imaging software at all magnifications.
- 2) **Transmitted Light system:** 12V100W Halogen Illumination with intensity control through touch panel and imaging software
- 3) **Condenser:** Motorized Universal Condenser (suitable for all microscopy techniques such as Phase, DIC) with 6 to 7 slots. It should have Phase rings for 10X, 20X, 40X and DIC prisms for 20X, 40X and 60X and 100X objectives. Automatic detection of phase ring.
- 4) **Eyepiece:** 10X with F.O.V 22mm or better eye pieces-2 nos.
- 5) **Nosepiece:** Six positions motorized revolving nosepiece with Slot for DIC Slider/analyzer to accommodate objectives of different magnifications.
- 6) **Stage:** Motorized X-Y Stage with multi-site scanning capability, controller and joystick having multiple holders to adapt. The motorized stage should be able hold CO2 incubator with stage inserts for 35 mm plates, 96 Well plates, and Slides. The imaging software should have modules to drive the motorized stage and perform multi well/multipoint imaging and mosaic imaging (Image stitching).
- 7) **Objectives:** High numerical aperture objectives suitable for bright field/ fluorescence/ DIC observation. Plan fluorite 10X with phase, Plan flour long working distance objective 20X phase with correction collar, long working distance plan flour objective 40X phase with correction collar & fluorescence, High NA Confocal grade plan apochromat objective 60X with oil (N.A 1.35 or higher UV-IR Corrected), plan Apochromat 100X with oil (N.A 1.40 or higher UV-IR Corrected)
- 8) **Fluorescence Module:** Motorized fluorescence attachment with built in shutter and a minimum of 6-8 position filter cube slots for band pass (Excitation and Emission) interference fluorescent filters FITC/GFP (Ex465-495, DM 505), TRITC/Rhodamine (Ex 540/25, DM 565,) DAPI/Hoechst (Ex 340-380, DM 400), separate florescence filter for YFP, CFP and Cy5 application should be quoted.
- 9) **Fluorescence Light Source:** Fluorescence Light Source 120/130 watts metal halide/Mercury lamp with 2000hrs life time (quote 5 spare bulbs) with Light intensity control. The light source should be alignment free/pre-centered to minimize human interference for alignment. The light source should be connected to the microscope with fiber (3m) to avoid direct heat transfer from the Mercury/metal halide lamp. The shutter and the attenuator for the light source be controlled & synchronized by imaging software for time lapse and multi-channel imaging. It should also be controlled by touch screen and software.
- 10) **Camera:**
  - (i) A 2/3 inch pettier cooled 12.5 MP colour scientific CCD camera with minimum of 15 FPS for high resolution color imaging and  
2/3 inch 1360x1024 1.4 MP, 6.45 um pixel, 14bit monochrome camera cooled to-10 deg for high sensitive fluorescence live cell imaging should be quoted.



A facility to image both color and fluorescence imaging in sequential mode for HNE and fluorescence image with super imposition should be a part of the microscope. The switching of monochrome and color camera to be done through motorized switching between cameras with 100% light distribution in both cameras for sequential imaging of monochrome (fluorescence) and color (HNE) imaging. The bidders can quote for single or two independent cameras meeting all above specifications.

**11) Software:** The imaging software should have an advance multidimensional acquisition, camera control and controlling all function of motorized and coded functions of microscope. It should have automated count & measurement modules, time lapse recording functions, automated five dimension imaging, automated multi-channel fluorescence capturing and merging , fluorescence unmixing, co-localization, wide Field basic De-convolution software module . Quote for 3D Blind deconvolution module in option. The software should have function of automated Multi Point/multi well time Lapse Imaging.

Branded Data processing unit with i5/i7 Xenon processor with 8 GB RAM, DVD Writer, 1TB or higher HDD, 1280x1024 (min. 1024 x768) monitor resolution with Graphic card with separate graphics memory. PCI-Express x1. Compatible with half size or Low-profile PCIe board. Original Window 8 Operating System (64 Bit), Original Anti-Virus with CD, LCD Monitor 23-24 inches. UPS 2 KVA with 30 Minutes back up.

**12) CO2 Top Stage Incubator:** comprising of Incubating chamber with glass heated lid, thermal controller, automated CO2 mixer to use 100% CO2 and deliver 5% constant CO2 output with a heated humidifying Module. It requires at least 35mm Petri-dish Plate, glass slide and 96 well plate adapters, Air pump and adapter for holding Incubator on motorized XY stage. Separate software for controlling all the above function of the incubator. The incubator should have multiple holes to accept the perfusion tubes and CO2.

**13) Anti-Vibration table:** An active anti-vibration table with pneumatic pump should be supplied.

**14) ADDITIONAL ITEMS:**

Fluorescence Light source: Long life (>15000 Hrs) precentred / prealigned bright white light LED light source directly coupled to the microscope with an inbuilt attenuation and shutter. The shutter and the attenuator be controlled & synchronized by imaging software for time lapse and multi-channel imaging.

A two channel peristaltic pump system with necessary electronics to synchronise with the acquisition to be quoted in option.

**15) Should be FDA/ CE/ BIS approved product.**

Should conduct onsite Testing & certification post-installation

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**43. Page No. 19, Item No. 13, Laminer flow cabinet, Point No.01:**

**For**

Equipment shall be made of 1 mm stainless steel minimum 304 grade, of size 6x2x2 feet working area approximately with heavy duty lockable castor wheels.

**Read**

Equipment shall be made of 1 mm stainless steel minimum 304 grade, of size 6x2x2 feet horizontal working area approximately with heavy duty lockable castor wheels.

**Administrative Officer  
AIIMS, Jodhpur**