



## **Notice Inviting e-Tender**

**West Bengal Medical Services Corporation Limited**

**Swasthya Sathi**

**GN-29, Salt Lake, Sector-V**

**Kolkata-700091**

Phone No (033) 40340307/320

E mail: [procurement@wbmsc.gov.in](mailto:procurement@wbmsc.gov.in)

**Supply and Commissioning of Medical equipment for 02 (two) new Government Medical College & Hospital, Dept. Of Pathology**

(Submission of Bid through *online*)

**Bid Reference No.: WBMSCL/NIT-196 /2023**

**Dated-24.04.2023**

### **AMENDMENT-I**

## **Revised Technical Specification**

### **Item No.-01**

#### **Fully Automated high throughput Multi-Stainer Workstation**

1. High throughput system.
2. The Instrument should be compact, robotic arm for X-Y-Z directions, space saving for all types of Staining for routine application with continuous washing of slides with fresh water
3. System should be capable for running H&E, PAP and other special staining protocols simultaneously.
4. High specimen slide throughput up to 300-600 slides/hour depending up on the selected program.
5. Minimum loading capacity up to minimum 5 or more slide racks at one time with at least 20 - 30 specimen slides/rack Intuitive software to perform separate\_protocols simultaneously with multiple baskets in process should be available
6. Complete with 3-8 water stations, 26-28 reagent stations of minimum 280ml - 450 ml capacity, 5 drying station and a total of 4-6 configurable doors for loading and unloading
7. Programmable for 50 programs of up to at least 50 steps with incubation time setting from 0 sec to 59 mins or more
8. Integrated oven with temperature setting from (30-65)°C for slide drying

10. Agitation programmable from 0 to 20 times or continuous
11. Programmable up and down movement of robotic arm during dip in stain
12. Fume extraction fan with charcoal filter to remove hazardous fume
13. All-new easy to navigate touch screen allows an at-a-glance visual check on progress
14. Provides all the information required for routine operation from a single screen
15. LED lighting / total visibility through transparent material to provide superior visibility within the staining area
16. USB connectivity allows rapid access to data and protocols
17. Inbuilt Battery back-up for 40-50 minutes of power should be available
18. Gentle vibration to slide rack during lifting to reduce carryover contamination or drip tray technology
19. Audible warning buzzer in case of any error during operation
20. Reagent containers can be exchanged quickly and easily
21. Power Supply : 220-240V AC , 50/60 Hz
22. Instrument should be US-FDA registered or European CE compliant / BIS
23. Manufacturer should be ISO Certified. Proper proof of certification should be provided
24. Onsite Physical demonstration of the equipment will be mandatory for technical qualification

## **Item No.-02**

### **Fully Automated Embedding System (Heated embedding module & cold plate)**

1. Microprocessor controlled bench top unit, fully programmable automatic on/off control with two console unit one heated paraffin dispensing and embedding unit and cryoconsole with cooling plate
2. Can be programmed to turn on automatically to bring all work areas to their proper temperatures in time for the workday.
3. Independent programmable temperature settings for paraffin reservoir, mold warmer, cassette bath, and work surface
4. Capacity of tissue storage tank should be 4- 5 liter paraffin and large area of cold plate.
5. Paraffin reservoir temperature setting range from 50°C to 70 °C
6. Ample cold plate to accommodate at least 60 or more blocks.
7. Cassette bath to store at least 300 cassettes or mould storage.
8. Mold warmer temperature programmable from 50°C to 70°C
9. Work surface temperature programmable from 50°C to 70°C

10. Cold spot temp with Peltier element
11. Cold plate temperature range from -3 to -12°C and adjustable
12. System should be operated by manual as well as foot pedal.
13. Spacious paraffin collection tray to collect excess paraffin from work surface.
14. Separately heated paraffin dispenser with temperature 50°C to 70°C
15. Bright, even illumination of the embedding area to be provided through well lit and clutter free - Cool LED lighting
16. Instrument should be programmable for work-days, work starting time, work end time, real time and day of the week for automatic switch on/off of the instrument.
17. Should have forceps warmer, along with electrically heated forceps
18. Should have paraffin trimmer preferably.
19. Mains connection voltage: 220-230v/50/60 Hz. And
20. Super Mega Cassettes can be embedded with ease.
21. Manufacturing company should be ISO Certified.
22. Equipment should be USFDA registered **Or** European CE certified **/ BIS** .
23. Onsite demonstration of the instrument should be mandatory.

### **Item No.-03**

#### **Grossing Station**

Stainless steel, with Control panel, air filtration system, Track mounted adjustable computer arm with articulation, LED lights that are color and intensity, Dedicated USB ports for camera control and data transfer adjustable, Integrated pathology camera system, Instrument Set (High quality) Height Adjustable Stainless Steel Chairs With Split AC of appropriate capacity.

### **Item No.-04**

#### **Five part Fully Automated Cell Counter**

| Specification          | Specification Name     | Bid Requirement (Allowed Values)              |
|------------------------|------------------------|---|
| Performance Parameters | Type of system offered | closed system                                 |
|                        | Analysis principle     | LASER / flow cytometry based scatter analysis |
|                        | Type of cell counting  | 5 part WBC differential                       |
|                        | NRBC%                  | Mandatory                                     |

| Specification               | Specification Name                                   | Bid Requirement (Allowed Values)                                   |
|-----------------------------|--|--|
|                             | Availability of body fluid(CSF, synovial, serous)    | Mandatory  |
|                             | Reticulocyte Percentage                              | Mandatory  |
|                             | Discrete analysis modes available                    | CBC,CBC+DIFF   |
|                             | Analysis method for WBC                              | Flow cytometry   |
|                             | Method for platelet measurement                      | dual angle light scatter /<br>fluroscent / Electrical<br>impedence |
|                             | RBC Measurement method                               | Electrical impedance/ flow<br>cytometry                            |
|                             | Hb measurement                                       | cyanide free colorimtery   |
|                             | No of sample racks to cater to different tube sizes  | With autoloader  |
|                             | Maximum sample Aspiration volume needed in all modes | 50µl -100µl  |
|                             | Minimum sample volume required in all modes          | 60µl or less   |
|                             | Throughput capacity in CBC/Differential              | 60 or more   |
|                             | Type of modes of sample running                      | Open vial  |
|                             | Hemoglobin linearity                                 | 0 to 25 gm per litre   |
|                             | Availability of Auto dilution                        | Yes  |
|                             | should have clot detection facility                  | Flagging facility  |
|                             | Type of Calibration                                  | Both manual and<br>automatic                                       |
|                             | Separate diluting nozzles for RBC and WBC            | Yes  |
|                             | Double bathing mechanism                             | Optional   |
|                             | Upgradable to integrate with attachment              | Yes  |
| Data Management and Display | Type of data management                              | inbuilt system   |
|                             | Display  | LCD/LED  |
|                             | PC hard disk   | Optional   |
|                             | Inbuilt monitor size in inches                       | >5   |
|                             | Processor of PC Provided with system                 | NA (If PC not provided)  |
|                             | RAM  | NA (If PC not provided)  |
|                             | HDD  | NA (If PC not provided)  |

| Specification                            | Specification Name   | Bid Requirement (Allowed Values) |
|--|--|----------------------------------|
|  | PC Monitor size in inches if PC provided externally  | NA (for Inbuilt based)           |
|  | HIS/LIS Interface  | RS232 or others                  |
|  | Type of external storage   | USB                              |
|  | No of USB Port provided  | 4                                |
|  | Printer facility   | Yes                              |
|  | Type of printer unit   | External                         |
|  | Printer type   | LASER printer                    |
|  | "Database capability of storing sets of results and graphics"  | >=20000                          |
|  | L J Plot facility  | Yes                              |
|  | delta check for cumulative review  | Optional                         |
|  | On line QC option  | Yes                              |
|  | QC File management   | Yes                              |
|  | Type of user Interface or data entry   | all three                        |
| Power Requirements                       | Rating of online UPS in KVA  | 1 KVA                            |
|  | Back up time in minutes  | 15 min                           |
| ACCESSORIES ,SPARE PARTS AND CONSUMABLES | "Offered equipment unit to be supplied with sufficient consumables (with at least 2/3rd of total shelf life) required for, sufficient to carry out haematological testing of samples"        | 500                              |
|  | Net work integration with lab information system feature   | Yes                              |
| Miscellaneous Parameters                 | Warranty (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)  | 2 Years                          |
|  | Number of installations in Central / State / PSU Govt Hospitals ( Hint: Seller should supply a performance certificate of the device to the buyer in case demanded after placement of order) | More than 3                      |
|  | Availability of toll free facility for technical support maintained by OEM or authorised agencies  | Yes                              |
|  | Certification  | CE / EC / UK Cert / US FDA / BIS |
|  | Calibrator   | 01 set                           |

| Specification | Specification Name | Bid Requirement (Allowed Values) |
|---------------|--------------------|----------------------------------|
|               | Quality control    | 01 set                           |

### **Item No.-05**

#### **Three Part Fully Automated Cell Counter**

| Specification               | Specification Name                                      | Bid Requirement (Allowed Values)               |
|-----------------------------|---|--|
| Performance Parameters      | Type of system offered                                  | closed system                                  |
|                             | MID% analysis   | Yes  |
|                             | MtD# analysis   | Yes  |
|                             | Gran% analysis  | Yes  |
|                             | Gran# analysis  | Yes  |
|                             | Analysis method for WBC                                 | Electrical impedance/ flow cytometry           |
|                             | Method for platelet measurement                         | Electrical impedance/ flow cytometry           |
|                             | RBC Measurement method                                  | Electrical impedance/ flow cytometry           |
|                             | Hb measurement  | Photometric /direct cellular measurement       |
|                             | Types of modes of running sample                        | Open vial                                      |
|                             | Maximum sample aspiration volume needed in any of modes | should be less than 300 µl                     |
|                             | Minimum sample volume required                          | should be 100 µl or less                       |
|                             | Throughput capacity of analyser in (samples/ hour)      | 60 or more                                     |
|                             | Hemoglobin linearity                                    | 1 to 24 gm per dl                              |
|                             | Availability of Auto dilution                           | Optional                                       |
|                             | Type of Calibration                                     | automatic, manual, both (automatic and manual) |
|                             | Direct aspiration for capillary blood                   | Yes  |
|                             | Separate diluting nozzles for RBC and WBC               | Yes  |
| Double bathing mechanism    | Yes   |  |
| Data Management and Display | Type of data management                                 | Inbuilt system                                 |
|                             | Display   | LED / LCD / TFT                                |
|                             | Inbuilt monitor size in inches                          | More than 5                                    |
|                             | PC Monitor size in inches (When PC provided externally) | NA (if Inbuilt system)                         |
|                             | PC hard disk  | NA   |
|                             | RAM capacity of PC System                               | NA (if no PC provided)                         |
|                             | HIS/LIS Interface                                       | HL7 or others                                  |

| Specification  | Specification Name  | Bid Requirement (Allowed Values)   |
|--|---|--|
|  | Type of external storage  | USB  |
|  | No of USB Port  | 2 or more  |
|  | Data management systems   | Provide histograms in display and print  |
|  | Type of user Interface or data entry  | all three (touch screen / Non touch screen, handheld barcode reader facility and manual) |
|  | Minimum internal storage 5,000 data   | Mandatory  |
|  | "External Database capability with 32 GB pen drive  | Mandatory  |
|  | Printer facility  | No   |
|  | Type of printer unit  | Inbuilt / External   |
| Power Requirements   | Type of UPS   | Online   |
|  | Rating of UPS in KVA  | 1 KVA  |
|  | Back up time in minutes   | 15 min   |
| Accessories, spare parts and consumables                                       | "Offered equipment unit to be supplied with sufficient consumables (with at least 2/3rd of total shelf life) required for, sufficient to carry out haematological testing of samples"     | 500  |
| Miscellaneous Parameters   | Warranty (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)   | 3  |
|  | Number of installations in Central /State/PSU Govt Hospitals ( Hint: Seller should supply a performance certificate of the device to the buyer in case demanded after placement of order) | More than 3  |
|  | Availability of toll free facility for technical support maintained by OEM or authorized agencies   | Yes  |
| Additional Specification Parameters - Automated Hematology Analyser ( 3 Part ) |   |  |
| Specification Parameter Name   | Bid Requirement (Allowed Values)  |  |
| Certification  | CE / EC / UK Cert / US FDA / BIS  |  |
| Calibrator   | 01 set  |  |
| Quality control  | 01 set  |  |

## Item No.-06

### **Coagulometer (Fully automated)**

| Specification     | Specification Name                                     | Bid Requirement (Allowed Values)        |
|-------------------|--|---|
| System Parameters | Configuration Model                                    | Benchtop                                |
|                   | System type  | Closed                                  |
|                   | Throughput (PT tests/hr)                               | 100 – 150                               |
|                   | Throughput (APTT tests/hr)                             | Any applicable numeric value            |
|                   | Throughput (Simultaneous PT&APTT tests/hr)             | Any applicable numeric value            |
|                   | Method Used for clotting assay                         | Mechanical clot detection/Photo-Optical |
|                   | Immunologic Assay                                      | Yes                                     |
|                   | Chromogenic Assay                                      | Yes                                     |
|                   | Centrifuge required for Sample                         | Yes                                     |
|                   | Sample Type  | Plasma, Whole blood                     |
|                   | Stat facility  | Yes                                     |
|                   | Maximum onboard sample capacity at a given time        | Any applicable numeric value            |
|                   | Continuous loading capability of samples and reagents  | Yes                                     |
|                   | Number of positions for stat samples                   | Any applicable numeric value            |
|                   | Total number of positions for vials of different sizes | Any applicable numeric value            |
|                   | Number of measurement channels                         | Any applicable numeric value            |
|                   | Test Menu Programmable                                 | Yes                                     |
|                   | Number of user defined test settings                   | 50 or more                              |
|                   | D-Dimer Test menu                                      | Yes                                     |
|                   | TT Test Menu   | Yes                                     |
|                   | Factor Assays(Both Intrinsic and extrinsic pathways)   | Yes                                     |
|                   | Vwf antigen  | Yes                                     |
|                   | LA1,LA2  | Yes                                     |
|                   | Protein S and C  | Yes                                     |
|                   | Plasminogen  | Yes                                     |
|                   | Plasmin inhibitor                                      | Yes                                     |
| AT-III            | Yes  |   |

| Specification      | Specification Name   | Bid Requirement (Allowed Values)                                 |
|--------------------|--|--|
|                    | Flagging of PT value when results exceed 120 seconds           | Yes  |
|                    | APTT value provided when results exceed 180 seconds            | Yes  |
|                    | Platelet aggregometry test                                     | optional   |
|                    | Multi wave length testing                                      | Yes  |
|                    | Wave form analysis   | Optional   |
|                    | Analysis Mode  | All (Re-dilution, Re-testing, Repeat analysis)                   |
|                    | Dispensing   | Pre-heating probe, Level sensing, Vertical obstruction detection |
| System Features    | Direct Sampling  | Yes  |
|                    | Closed-tube sampling   | Optional   |
|                    | Direct from track sampling                                     | Optional   |
|                    | Auto sampler   | Yes  |
|                    | Computer Interface   | RS232 bidirectional, RJ45 bidirectional, Both Autorequest        |
|                    | LIS Interface  | Yes  |
|                    | Bar Code Regents Reader  | Yes  |
|                    | Printer type   | Laser printer, Built-in Thermal                                  |
|                    | Calibration  | Automatic, Manual  |
|                    | Internal Quality Control                                       | Yes  |
|                    | Inventory management controlled by software                    | Optional   |
|                    | Liquid Level Detection   | Optional   |
|                    | Type of data management  | PC based, inbuilt system   |
|                    | PC monitor type  | LCD / LED, NA for inbuilt  |
|                    | PC monitor size in inches                                      | 15 or more, NA for inbuilt                                       |
|                    | PC hard disk   | >500 GB, NA for inbuilt  |
|                    | Number of USB port   | 2 or more  |
|                    | Inbuilt Display  | LCD, LED, TFT, Touch screen                                      |
|                    | Computer System Operating OS                                   | Windows 10 or equivalent   |
| Power Requirements | Resettable over current breaker shall be fitted for protection | Yes  |
|                    | Power backup   | UPS  |
|                    | Back up time in minutes  | 15   |
|                    | UPS Maintenance to be provided by seller                       | Yes  |

| Specification                            | Specification Name  | Bid Requirement (Allowed Values) |
|--|---|----------------------------------|
| Accessories, spare parts and consumables | "Offered equipment unit to be supplied with sufficient consumables for PT&APTT tests (with at least 2/3rd of total shelf life) required for, sufficient to carry out testing of samples"            | 1000                             |
| Miscellaneous Parameters                 | Warranty (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)   | 2                                |
|  | Number of installations of the machines in Central /State/PSU Govt Hospitals( Note: Seller should supply a performance certificate of the device to the buyer if demanded after placement of order) | More than 3                      |
| Certification                            | CE / EC / UK Cert / US FDA / BIS  |                                  |