

HSCC (I) Ltd.

Amendment – I dated 22.09.17

Tender Enquiry No.: HSCC/KCGMC/Medical Equipment/2016-17/MC-06 Dated 01/09/2017

Bidders are requested to note the revision in the specification of the following items :

III . DEPARTMENT OF PATHOLOGY

Item No. 06 Semi Motorized Rotary Microtomes

1. High precision machine suitable for both delicate as well as hard tissue sectioning.
2. Manual type with specimen clamps, user selectable coarse feed wheel turn direction, retraction on/off function and blade holder for disposable blades.
3. Section thickness setting 0.5-60 μm with settings in 0.5, 1, 2, 5 increments at different levels.
4. Section increment:
 - from 0 to 2 μm in 0.5 μm steps.
 - from 2 to 10 μm in 1 μm steps.
 - from 10 to 20 μm in 2 μm steps.
 - from 20 to 60 μm in 5 μm steps.
5. Specimen advance 28 mm or more.
6. Vertical stroke 60 mm or more.
7. Provision of step trimming.
8. Adjustable Specimen Clamp at least 50 x45 mm with orientation in x y axis.
9. Single disposable blade holder for accommodating both high and low profile blades.
10. Lateral Coarse feed.
11. Integrated removable section waste tray.
12. Spare Low and High Profile Blades in dispenser pack of 50 blades: 6 packets each.
13. The equipment should be USA- FDA and European- CE approved
14. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided
15. The bidder should justify each specification point by point in their order of requirement and should provide the evidence for the same in the technical brochures of the instrument with page number. Photocopied catalogues will not be considered for technical specification evaluation.

Accessories:

- Orientable specimen clamp in x, y axis
- Disposable blade holder which accommodates both high and low profile blades
- Spare Low and High Profile Blades in dispenser pack of 50 blades: 6 packets each

Onsite training for 7 -10 days for the use of equipment

Item No. 07 Freezing Microtome with a stand for CO₂ Cylinder (Cryomicrotome)

1. Cryostat unit should-be open top, free Standing, mounted on retractable wheels complete with standard accessories.
2. Corrosion proof stainless steel cryo-chamber for easy decontamination / cleaning.
3. Double cooling system for specimen head and cryo-chamber.
4. Quick-freeze station with Peltier cooling system for rapid freezing and storage of Specimen with temperature: ambient to -45⁰C by separate compressor.
5. Cryo-chamber temperature: ambient to -35⁰ C by separate compressor.
6. Maximum cooling time up to maximum low temperature should be less than 4 hours after start up.

7. CFC-free refrigerants and insulating foams.
8. Programmable automatic defrosting once in 24 hours. Duration of the defrost cycle should be 6 – 15 minutes.
9. Specimen storage shelf should store up to 8 chucks.
10. All functions via electronic control panel with microprocessor-based touch-key controls. Electronic locking key to avoid any inadvertent changes in program setting should be available.
11. Digital display to time, section thickness & temperature.
12. Proper in built illumination of Cryochamber and specimen head area.
13. Ultraviolet disinfection of Cryochamber and cutting unit for user safety.
14. Instrument should have closed drainage system to allow controlled disposal of fluids
15. UPS of appropriate rating for safety against power failure with two hours power backup.
16. Should work at 220-240 VAC 50/60HZ.

Specifications of microtome:

17. Corrosion resistant splash proof Retracting Microtome with universal blade holder for High profile blades and anti-roll plate.
18. Specimen precision orientation by 8 deg. (in x/y/z axis) should be available
19. Section thickness range 1-60µm in 1, 2 and 5µm increments at different ranges.
20. Specimen feed/advance: 25 mm or more.
21. Vertical stroke: 50 mm or more.
22. Trimming: via Motorized coarse feed.
23. Motorized rapid and slow coarse feed preferably at two speeds 500µm/s & 1000 µm/s should be available.
24. Trimming facility should be available.
25. Disposable blade holder system with lateral displacement and integrated glass anti-roll guide should be available.
26. Glass anti-roll guide with anti static feature to facilitate perfect stretching of sections should be available.
27. The equipments should be USA- FDA and European- CE approved
28. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided
29. The bidder should justify each specification point by point in their order of requirement and should provide the evidence for the same in the technical brochures of the instrument with page number. Photocopied catalogues will not be considered for technical specification evaluation.

Essential accessories:

- a. High Profile Disposable blades (50 blades/packet) 10 packets.
- b. OCT compound/Cryo-embedding medium 30 bottles (100-120 ml each).
- c. Compatible specimen discs of different sizes 30 Nos.
- d. Indigenous Constant Voltage Stabilizer of suitable rating to overcome power fluctuations.

Note: Prices of essential accessories should be quoted separately for comparison

Onsite training for 7 -10 days for the use of equipment

Item No. 8. Fully automated Tissue embedding station

- a. Should incorporate three separate systems for cold plate and heated paraffin embedding module.
- b. Temperature range of cold plate: -5 to 15 deg C, adjustable in steps of 1 deg C.
- c. >60 cassette molds capacity with acrylic cover.
- d. Large comfortable working shelf with tissue cassettes and molds at the same level or adjustable height.
- e. Working surface and wax drainage completely sealed to avoid wax penetration.
- f. Wax container capacity at least 4 liter with fine mesh filter.
- g. Provided with low voltage, different size, heated forceps.
- h. Additional heated removable forceps holder.
- i. Working area, removable forceps holder, cassettes opening area to drain into one tank for easy wax disposal.
- j. All functions of the system controlled through electronic system with digital programmable on and off timer.
- k. Bright illumination (Halogen lamp).
- l. Adjustable paraffin dispenser control.
- m. Wax dispenser nozzle projected forward. Flow of wax controlled manually or by foot switch.
- n. Working surface of cold plate should not be less than 300x350mm.
- o. Large space to keep additional base molds.
- p. Instant touch button to regulate hot plate temperature.
- q. Large low temperature area (cold plate) adjacent to hot plate temperature up to 50 deg C.
- r. Adjustable temperature for paraffin reservoir, working surfaces and integrated working trays between 45⁰C-70⁰C with +/- 1⁰C steps
- s. Paraffin reservoir, cassette bath, mold warmer and work surface temperature should be individually temperature adjustable.
- t. Should have a magnifying lens adjustable in any position and white light illumination for specimen orientation.
- u. Complete power cord and instruction manual.
- v. UPS of appropriate rating for safety against power failure with two hours power backup.
- w. To work on 220-240 volts.
- x. 1000 embedding rings should be provided with equipment
- y. The equipment should be USA- FDA and European- CE approved
- z. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided
- aa. The bidder should justify each specification point by point in their order of requirement and should provide the evidence for the same in the technical brochures of the instrument with page number. Photocopied catalogues will not be considered for technical specification evaluation.

Onsite training for 7 -10 days for the use of equipment

Item No. 9 Automatic Tissue Processor, Histokinette

- a. Fully automatic tissue processor, floor standing model.
- b. Computerized monitoring multiple programming facilities.
- c. Ergonomic control panel with full protected keyboard and LCD.
- d. Easy-to-learn and operator interface with a solvent-resistant color touch-screen
- e. Capacity: 200 or more cassettes.
- f. 4 modes of operation ambient, vacuum, pressure and pressure / vacuum option

- g. Provision of Gentle agitation in reaction chamber. Magnetic stirrer in retort for continuous agitation to keep reagent temperature uniform throughout and provides gentle agitation
- h. Automatic transfer of reagents and uniform reagents temperature.
- i. Optical level sensors for reagent and wax level in the retort
- j. Minimum 3 wax baths with adjustable temperature from 40⁰C to 70⁰C. Wax bath temperature programmable in 1⁰ increments
- k. Provision of cleaning of paraffin from reaction chamber after the completion of the process.
- l. Provision of lock with password.
- m. Provision of Audible alarms, error message and warning codes.
- n. Easy editing and changing of programs, even during a processing run.
- o. Programmable for up to 15 Programs. Infiltration time separately programmable for each station. Rapid processing should be provided.
- p. Machine should have the option of interrupting an automatic process for reloading or removing cassettes if needed to before the end of a run.
- q. Baskets should be automatically immersed in a station during the power failure.
- r. Indication of date, time, remaining time in process step, step number and reagent description.
- s. Delay timer up to 7 days.
- t. Drain time should not exceed 60 sec.
- u. Safety against reagent fumes.
- v. Safety device to protect over vacuum & overheating.
- w. Enhanced reagent management system for monitoring processing history of reagents with resulting change of reagent sequence, data printable for accrediting and QC requirements.
- x. Remote monitoring is desired to help identify and eliminate problems before tissue damage occurs.
- y. More than 1000 tissue cassettes should be provided along with the equipment.
- z. UPS of appropriate rating for safety against power failure with six hours power backup.
- aa. The equipment should be USA- FDA and European- CE approved
- bb. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided
- cc. The bidder should justify each specification point by point in their order of requirement and should provide the evidence for the same in the technical brochures of the instrument with page number. Photocopied catalogues will not be considered for technical specification evaluation.

Onsite training for 7 -10 days for the use of equipment

Item No. 10 GROSSING STATION

- Structure should be made completely of highly - polished corrosion Resistant stainless steel (AISI 316), material thickness 1.5 mm (table plate 2.0 mm).
- Should have Dimension Minimum L/W/H; 2000 X 1000 X 1900 mm
- Ergonomic knee space adjustments for seated working height
- Should have Height adjustable by hydraulic cylinders from 750 – 1050 mm, programmable for minimum 4 users
- Should have Downdraft and rear extraction
- Exhaust duct for connection to building ventilation system with adjustable bellows
- Should have minimum 4 LED lamps with dimmer switch
- Extracted working area should be minimum (900 X 800 mm) with 2-3 non perforated removable plates
- Dissecting area rinse from three sides (3 SIDED PERIMETER RINSE) to provide flow of water below the work area with control

- Drainage system, circulating cold water underneath the work area, with cut off valve
- Basin should be minimum (400 X 400 X200 mm),sound attenuating insulated, seamless welded, free from sharp edges and well-polished, with overflow
- Mixing tap for cold and warm water, with elbow lever, extendable shower hose (1.5 m) with shower head
- Magnetic Tool Bar, Glove dispenser, PE cutting board with steel measure
- Formalin waste drain (85 X 85mm) covered by a fine screen, Fresh formalin dispenser 10 l. Tank for waste formalin 10
- Ventilated waste container with sliding lid on table plate, Service door and telescopic shelf for formalin tanks
- Electrical control box with separate fuse for all the electrical equipment, Power supply, Sockets, main sockets as per need according to voltage/amperage/frequency
- Footswitch foe formalin pump, Cupboard and adjustable shelf of minimum dimensions 40.6 x 20.3cm,form holder,Tube holder
- MONITER AND KEYBOARD MOUNT for full articulation of the flat panel moniter and keyboard, should folds up right over mount and extends up to 11”
- MICROPHONE ON FLEX ARM should be Easy-to-adjust, small-diameter, alternating gooseneck to provide a steep low frequency attenuation to improve sound pickup without affecting voice quality with digital voice recorder
- Should have ARTICULATING CAMERA MOUNT with a CCD camera having 20x”optical zoom and at least 12 Megapixels. which should have an articulated arm with large locking knob with variable friction. Should be supplied with a quick release camera plate and secondary safety lock
- Should have STAINLESS STEEL STORAGE CONTAINERS UTILITY DRAWER and PULL OUT WRITING PLATFORM if dimension not less than 60cm x 60 cm.
- Fume hood with filter system
- Should provided 5 years warranty and 5 Years CAMC
- Bidders should have Service track record for at-least 10 years
- Should quote latest model as per above specification
- Demonstration is mandatory
- Compliance report to be submitted in a tabulated and point wise manner clearly mentioning the page and para of original catalogue
- List of important spare parts and accessories should be available for next 10 Years
- Installation and commissioning of equipment to be done at suppliers own cost
- Certification – US FDA/ CE certified and should meets international quality standard
- Dedicated USB Parts for camera control and data transfer adjustable
- Height adjustable stainless steel chairs with Split AC of appropriate capacity
- Electronic weighing scale capacity 5000 gm
- Measuring scale in cm & inches etched or fixed on the work surface
- To work at 200 -240 VAC 50/60 Hz
- Small specimen rinse with cold water control value & sink rinse basket with stainless steel holder

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- **Grossing tool set**
- S. No. Description Qty.
- 1. MAYO Dissecting Scissor: Size 17 cm Straight 02
- 2. MAYO Dissection Scissor: Size 17 cm Curved 02
- 3. Operating Scissor – Sharp/Blunt : Size 14cm Straight 02
- 4. Operating Scissor – Sharp/Blunt : Size 14cm Curved 02
- 5. Dressing Forceps- Serrated: Size 12cm 02

- 6. Halsted Mosquito Forceps- Curved: Size 12 cm 02
- 7. Tissue Forceps- 1x2 Teeth: Size 12 cm 02 8. Tissue Forceps- 1x2 Teeth: Size 25 cm 02 9. Tissue Forceps- 2x3 Teeth: Size 15 cm 02 10. Tissue Forceps- 4x5 Teeth: Size 15 cm 02
- 11. Liston Bone Cutting Forceps- Straight: Size 21 cm 01
- 12. Liston Bone Cutting Forceps- Angled on flat: Size 25 cm 01
- 13. Satterlee Bone saw: Size 30 cm 01
- 14. Rounded Bone Saw: Size 30 cm 01
- 15. Brain Knife 02
- **Onsite training for 7 -10 days for the use of equipment**

Item No. 11 CYTO CENTRIFUGE

1. The equipment should be capable of thin-layer cell preparation for retrieving cells from various body fluids especially paucicellular fluids and preserving their morphology
2. Cell preparation system, compact and slim.
3. Totally sealed head which could be autoclaved
4. Programme speed from 100 to 2500 rpm.
5. Run time from 1 to 99 minutes with specimen safety alarm.
6. Silent in operation.
7. Totally sealed environment during operation.
8. Built-in brake for immediate sample retrieval.
9. Unique chamber assembly of 3 elements: Stainless steel slide clips, Microslide and Sample chamber with filter cord attached.
10. Disposable sample chamber for high risk specimen.
11. System functions only when lid is locked.
12. Alarms for over speed and out of balance position.
13. Should run at least up to 24 samples at a time.
14. Concentrates cells as 6 mm diameter monolayered.
15. Display of the speed and time left to complete the cycle.
16. Should be complete with all accessories and consumables and instruction manual. Twelve funnels with clips and 12 boxes of filter cards should be supplied.
17. Demonstration of equipment is mandatory
18. To work at 220-240 volt.
19. UPS of appropriate rating for safety against power failure with half hour power backup.
20. US FDA and CE Europe certified
21. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided
22. The bidder should justify each specification point by point in their order of requirement and should provide the evidence for the same in the technical brochures of the instrument with page number. Photocopied catalogues will not be considered for technical specification evaluation
23. **Onsite training for 7 -10 days for the use of equipment**

Item No. 12 Automated High End Blood Cell Counter

1. Display & print all of the following parameters:
 - a. Hemoglobin, hematocrit, RBC count, mean corpuscular volume, mean corpuscular hemoglobin, mean corpuscular hemoglobin concentration, red cell distribution width-coefficient of variation (CV) and standard deviation (SD)
 - b. Platelet count, mean platelet volume, platelet distribution width
 - c. Total WBC count and differential leukocyte count comprised of percentage and absolute counts of Neutrophils, Lymphocytes, Monocytes, Eosinophils, Basophils.
 - d. Reticulocyte count as percentage, absolute reticulocyte count, immature reticulocyte fraction
 - e. % and absolute count of nucleated red blood cells
2. Hemoglobin estimation by a cyanide-free technique
3. Possess automatic floating thresholds for accurate separation of red cells and platelets
4. Capable of processing minimum 60 complete blood count (CBC)+differential leukocyte count (DLC)+reticulocyte count samples/ hour and minimum 80 complete blood count samples/ hour
5. Software generated flags should have features of definitive and suspect messages, able to follow both user-definable extended decision rules as well as ISLH consensus rules with the ability to set user-definable differential sensitivity.
6. Flags at least for the presence of:
 - a. Incomplete specimen aspiration
 - b. Interfering substances
 - c. Giant platelets and platelet clumps
 - d. Immature granulocyte/neutrophil populations
 - e. Blasts
7. Provide vacutainor autoloader and cap piercing system with barcode reader
8. Should have advanced clot detection and avoidance technology (e.g. clot filters) along with autosampler and waste disposal system.
9. Capable of archiving patient data: complete results including histograms of minimum 10,000 samples.
10. Bi-directional information transfer on the LIS interface, including numeric and flag results, histograms and scatter plots,; patient demographics and patient orders
11. Tag and hold results for follow up confirmatory testing and perform delta checks on specimens from the same patient.
12. Sample requirement $\leq 200 \mu\text{l}$ in automated mode for CBC and DLC along with micro-sample capability.
13. In-built option to execute limited number of parameters to conserve differential reagents
14. Alerts for:
 - a. Low reagents.
 - b. Temperature variance
 - c. Probe block
15. Sample probe backwash facility, auto-wipe of probe
16. Power specifications-220 to 240 V, 50-60 Hz.
17. An uninterrupted power supply unit/inverter for 2 hour back-up to be supplied along with and price included.
18. In-built quality control software tools including Levey Jennings charts.
19. Precision, expressed as coefficient of variance:

Parameter: CV %

WBC count ≤3.0 percent

RBC count ≤1.5 percent

Hemoglobin ≤1.5 percent

Platelet ≤5.0 percent

MCV ≤1.0 percent

Hct ≤1.0 percent

Accuracy of automated differential count compared with manual differential: NE = ±2.0; LY, MO = ±3.0; EO = ±1.0 (or $r > 0.9\%$ for neutrophils and lymphocytes, and $> 0.8\%$ for monocytes and eosinophils)

20. Linearity limits (minimum range to be included)

WBC: $0.4-250 \times 10^9/l$

Hb: 1-22 gm%

Platelet count: $11-2000 \times 10^9/l$

21. Consumables and reagents for 30,000 samples to be supplied and included in quote
22. 2-year warranty followed by 5-year CMC to be quoted including minimum 6-monthly calibrations and 6-monthly preventive maintenance (including all consumables, reagents and labor costs for both) for the entire 7-year period.
23. Approximate cost per test for the combinations of CBC, CBC + DLC, CBC+DLC+reticulocyte count to be given in the price bid
24. The price of all reagents, consumables and daily quality control material for complete blood count including differential leukocyte count and reticulocyte counts to be quoted in INR in the price bid for approximately 60,000 complete blood counts including WBC differential and 24,000 reticulocyte counts per year. These are to be frozen for seven years (i.e. 2 year warranty + 5 year CMC). These costs shall be taken into account along with the instrument cost for price comparison.
25. The instrument should have the capability or be upgradable for attachment of slide maker and slide stainer.
26. A local-area-network (LAN) set-up of 5 computers (monitors and CPU) interfaced with the analyzer to enable multiple users to authorize reports electronically on the LIS/HIS to be provided and set-up.
27. Air conditioner(s) 1.5 tonnes if temperatures lower than 22 degrees centigrade are required by the equipment.
28. Appropriate tables and chairs to keep the equipment and UPS/inverter.
29. Compatible color and black and white laser printers (to be included in the equipment price).
30. Compliance / deviation statement to be submitted with technical bid; all statements supported by scientific literature. The bidder should justify each specification point by point in their order of requirement and should provide the evidence for the same in the technical brochures of the instrument with page number. Photocopied catalogues will not be considered for technical specification evaluation.
31. The equipment should be USA-FDA and European –CE certified.
32. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided
33. **Onsite training for 7 -10 days for the use of equipment**

Item No. 14 Automated Integrated Urine Chemistry and Sediment Analyzer

1. The analyser should be compact benchtop, fully automated integrated urine analyzer, integrating urine chemistry and urine sediment analysis.
2. Chemistry parameters required to be provided should be glucose, protein, blood, bilirubin, urobilinogen, ph, ketones, nitrate, leuokocyte, creatinine, albumin, albumin/ creatinine ratio, pro/ cre ratio.
3. Additional instrument parameters should have specific gravity, turbidity & colour.
4. The analyser should be based on fluorescence flowcytometry for accurate measurement of urine parameters such as RBC, WBC, epithelial cells, cast and bacteria.
5. The instrument should provide scattergrams and histograms for easy interpretation.
6. The analyser should provide additional RBC information, UTI information and conductivity.
7. The analyser should have user friendly software with cross check function.
8. The analyser should have a throughput 100 samples / hour (chemistry) & 50 samples / hour (sediment analysis).
9. The equipment should have a storage of 200 test strips at a time with continuous loading for true walkaway analysis.
10. The equipment should have the capability to load two different types of strips for better flexibility in analysis
11. The equipment should be capable of analysis in both manual and sampler mode.
12. Sampler should have the capacity of 60 sample tubes and internal barcode for sample identification
13. Controls should be available for both chemistry and sediment analysis
14. Data storage of 10000 samples including graphics & 24 qc files with 300 data points each should be available.
15. The equipment should have interface for output to printer or transmitted to LIS / HIS and it would the responsibility of the supplier to do the interfacing.
16. system should have an option to set abnormal value flag by the user
17. UPS of appropriate rating for safety against power failure with two hours power backup.
18. The equipment should be USA- FDA and European- CE approved
19. Documents supporting track record and satisfactory performance from institutions of national importance (minimum of one) should be provided

Onsite training for 7 -10 days for the use of equipment**Item No. 15 Storage Cabinet for 10000 Slides**

1. Made of stainless steel with powder coated finish.
2. The internal drawers should be made of stainless steel/aluminum duly powder coated.
3. Each drawer having 8 compartments with capacity of 125 blocks approximately.
4. Index card holder and handle to be provided on each drawer
5. Handle to be provided on front panel.
6. The cabinet should have door for dust free storage & is provided with lock & key.
7. ISI marked.

I Department of Pharmacology, KCGMC, Karnal

For:-

| SL. NO. | NAME OF EQUIPMENT | QTY (Nos) | EMD INR (Rs.) |
|---------|-------------------------------|-----------|---------------|
| 3 | Physiographs - Single channel | 40 | 40,000.00 |

Amended as

| SL. NO. | NAME OF EQUIPMENT | QTY (Nos) | EMD INR (Rs.) |
|---------|-------------------------------|-----------|---------------|
| 3 | Physiographs - Single channel | 1 | 1,000.00 |
| 4. | Physiographs - Three channel | 1 | 2,500.00 |

Bidders are requested to note the revision in the specification of the following items :

| Sr.no | Items | Specification | Qty |
|-------|--------------|--|-----|
| 3 | Physiographs | <p><u>TECHNICAL SPECIFICATION DIGITAL SINGLE PHYSIOGRAPH MACHINE</u></p> <ul style="list-style-type: none"> • Digital Physiograph single channel should have following technical specifications with Single channel Console with Time & Event Channel and stimulator for Human & Animal experiments. • No. of channels: Single, Display & Size: Coloured TFT: 15.5x9.5 cm, Channel width: 80m, A/D Conversion: 16-bit A/D, CMRR: >80-85 db • Sensitivity: 50, 100, 200, 500, uv/cm and 1, 2, 5,10,20,50,100 mv/cm • Sweep Speed: 0.5,.1,.2,.5,1,2,5,10,20,50,100 div/sec., Notch Filter: 50-60 Hz • Data Sampling Frequency: >256 Hz, Input Impedance: >1 Mega Ohm, • System should have following features:- <ul style="list-style-type: none"> - Standalone unit having coloured TFT Display for displaying online & offline recording data. Systems have six couplers fitted in a Single unit easy to carry & light weight. • System with Eight Transducers (Force, Pressure, Volume, Respiration, Temperature, Pulse, Respiration Belt, and Isotonic) -Interface to the Computer-Through USB. • System provided with software to review and printing the recorded data from PC.(optional) • System should be supplied with Digital Mono Bath with following specification & features:- • Leak proof dovetailed joints of transparent perspex. • Digital Temperature controlled built in LED/LCD temperature display provided in the main single unit. • Independent electro valve for chamber filling and emptying controlled by push button. • Tissue washing achieved without exposing tissue to air. • Use of safety sensor for both water level and water temperature cut off. | 1 |

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|---|--------------|---|---|
| | | <ul style="list-style-type: none"> • Should have facility to provides to fill and drain the solution from chamber by push button controlled electro valve without exposing tissue to air. • Bath size 9"x 7"x7", Chamber size 10ml.25ml & 50ml. Temp. Range 10-50 °C & warming coil Dia 1.5" & Tissue holder with stand. • Should have following Couplers, Transducers & Accessories:- • Strain Gage, Isotonic, Pulse Respiration, Temperature, EKG (CLINICAL) with Electrode, 5 pin Junction box and Jelly, Bio Potential (with Electrodes, 3 pin Junction box, Paste and Electrode for Action Potential). • Pressure for strain gage Coupler, Volume for strain gage Coupler, Pulse for Pulse Respiration Coupler, Temperature for Temperature Coupler, Muscle Activity/Force for strain gage Coupler, Respiration Belt for Pulse Respiration Coupler, Isotonic Fine Movement for isotonic Coupler . • Fuses- 5, Ear thing cord- 1, Instruction Manual- 1, Machine cover- 1, Software Back up on C/D- 1 & USB Cable-1. EEG & EMG paste. • Marriot bottle with stand, tubing and another accessories. | |
| 4 | Physiographs | <p><u>TECHNICAL SPECIFICATION DIGITAL THREE CHANEEL PHYSIOGRAPH MACHINE</u></p> <ul style="list-style-type: none"> • Digital Physiograph Three channel should have following technical specifications with Single channel Console with Time & Event Channel and stimulator for Human & Animal experiments. • No. of channels: Single, Display & Size: Coloured TFT: 15.5 x 9.5 cm, • Channel width: 80m, A/D Conversion: 16-bit A/D, CMRR: >80-85 db • Sensitivity: 50, 100, 200, 500, uv/cm and 1, 2, 5,10,20,50,100 mv/cm • Sweep Speed: 0.5,.1,.2,.5,1,2,5,10,20,50,100 div/sec., Notch Filter: 50-60 Hz • Data Sampling Frequency: >256 Hz, Input Impedance: >1 Mega Ohm, • System should have following features:- <ul style="list-style-type: none"> - Standalone unit having coloured TFT Display for displaying online & offline recording data. Systems have six couplers fitted in a Single unit easy to carry & light weight. • System has Eight Transducers (Force, Pressure, Volume, Respiration, Temperature, Pulse, Respiration Belt, and Isotonic) -Interface to the Computer-Through USB. • System should be supplied with Digital Mono Bath with following specification & features:- <ul style="list-style-type: none"> Leak proof dovetailed joints of transparent pers pex. Digital Temperature controlled built in LED/LCD temperature display provided in the main single unit. Independent electro valve for chamber filling and emptying controlled by push button. Tissue washing achieved without exposing tissue to air. Use of safety sensor for both water level and water temperature cut off. Should have facility to provide to fill and drain the solution from chamber by push button controlled electro valve without exposing tissue to air. Bath size 9"x 7"x7", Chamber size 10ml.25ml & 50ml. Temp. Range 10-50 °C & warming coil Dia 1.5" & Tissue holder with stand. • Should have following Couplers, Transducers & Accessories:- • Strain Gage, Isotonic, Pulse Respiration, Temperature, EKG (CLINICAL) with Electrode, 5 pin Junction box and Jelly, Bio Potential (with Electrodes, 3 pin Junction box, Paste and Electrode for Action Potential), Pressure for strain gage | 1 |

| | | | |
|--|--|---|--|
| | | <p>Coupler, Volume for strain gage Coupler, Pulse for Pulse Respiration Coupler, Temperature for Temperature Coupler, Muscle Activity/Force for strain gage Coupler, Respiration Belt for Pulse Respiration Coupler, Isotonic Fine Movement for isotonic Coupler .</p> <ul style="list-style-type: none"> • Fuses- 5, Ear thing cord- 1, Instruction Manual- 1, Machine cover- 1, Software Back up on C/D- 1 & USB Cable-1. EEG & EMG paste. • Marriot bottle with stand, tubing and other accessories. • Same systems should be use with or without PC independently. • System should be supplied with laptop i3, 2 GB RAM, 1TB HDD, Latest window software provided with software to review and printing the recorded data & B/W laser printer for hard copy print out. | |
|--|--|---|--|

Bid sale, submission and opening date of all items has been extended as per details given in Table - 1:

Table -1

| Sl. No. | Description | Revised Schedule |
|----------------|---|-------------------------|
| i. | Sale date of the tender | 29.09.17, 3.00 P.M. |
| ii. | Closing date & time for receipt of tender | 29.09.17, 3.30 P.M. |
| iii. | Time and date of Opening of Tenders | 29.09.17, 4.00 P.M. |

All other terms and conditions of the tender enquiry document shall remain unchanged.

Prospective bidders are advised to regularly visit HSCC website/ CPPP website for corrigendum /amendments etc. if any, as these will be notified on these portals only. No separate advertisement will published in the news papers in this regard.

s/d
CGM, HSCC India Limited
For and on behalf of DGMER, Panchkula