



महाराष्ट्र शासन

संचालनालय, वैद्यकीय शिक्षण आणि संशोधन, मुंबई

शासकीय दंत महाविद्यालय व रुग्णालय इमारत चौथा मजला, सेंट जॉर्जेस रुग्णालय आवार, पी. डीमेलो रोड, फोर्ट, मुंबई - ४०० ००१
दुरध्वनी: +९१-२२-२२६२०३६१-६५/२२६५२२५१/५७/५९. टेलीग्राम: "MEDUCATNSEARCH" फॅक्स: +९१-२२-२२६२०५६२/२२६५२१६८

संकेतस्थळ: <http://www.dmer.org>

No./DMER/Tender Notice/CORRIGENDUM/Equip.Pur/Jalgaon/18-19/M

Date :-05/10/2018

E-Tender Notice

CORRIGENDUM REGARDING SPECIFICATIONS FOR

Sr. No.	E-Code	Name of the equipments
01	E0- 2(19-18)	4 Body Mortuary Chamber
02	E0- 3(19-18)	Cabinet for 1000 Slide
03	E- 04(19-18)	Digital volume recorders
04	E- 05(19-18)	Dale's bath for internal organs
05	E- 06(19-18)	Student organ bath with LCD display
06	E- 07(19-18)	Monocular Research Microscope with LED
07	E- 08(19-18)	56 channel polygraph machine for research lab
08	E- 09(19-18)	Digital gas analyser apparatus Haldane student type
09	E- 10(19-18)	Automatic gas analyser, Automatic CO ₂ , O ₂ (digital gas analyser)
10	E- 11(19-18)	Single Channel digital physiograph with accessories (TFT screen)
11	E- 12(19-18)	Computerised Autonomic function Testing system
12	E- 13(19-18)	Spectrophotometer (UV / Visible)
13	E- 14(19-18)	Fully automatic chemistry analyser
14	E- 15(19-18)	Semi automatic chemistry analyser
15	E- 16(19-18)	Immunoassay analyser (Fully)
16	E -17(19-18)	Electrolyte analyser
17	E- 18(19-18)	Fully automatic random analyser
18	E- 19(19-18)	Practical lab (Modular) for 60 student set
19	E-20(19-18)	32 Seater Bus
20	E-21(19-18)	Autopsy table
21	E-22(19-18)	Fully automatic embedding system (heated embedding module & cold plate)
22	E-23(19-18)	Microscope for Students LED binocular with scanner, 10GA 40G & inbuilt battery backup power source
23	E-24(19-18)	Trinocular microscope for diagnostic & research work
24	E-25(19-18)	Binocular research microscope
25	E-26(19-18)	Deca head microscope

Sr. No.	E-Code	Name of the equipments
26	E-27(19-18)	Grossing station
27	E--28(19-18)	Automated rotary microtome
28	E--29(19-18)	Semi automated rotary microtome
29	E--30(19-18)	Cryostat
30	E--31(19-18)	Deep freezer
31	E--32(19-18)	Cold chamber
32	E--33(19-18)	Biosafety cabinet
33	E-34(19-18)	Incubator

1. Directorate of Medical Education & Research, Mumbai, invited e-tender in two envelope systems from the manufacturers / authorized dealers and suppliers to supply instruments/ equipments for the Government Medical College Jalgaon. This notice is available on the e-tender site i.e <http://dmer.maharashtra.etenders.in> & <http://maharashtra.govt.in> and also notified in Maharashtra Govt. Gazette supplement - II
2. All the tenderers are hereby informed that modifications made in the specifications after the **Pre-Bid meeting held on 03 October 2018 at 11.00 a.m** are as follows.

E -02(18-19) 4 Body Mortuary Chamber

No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(03) Cabinet for 1000 Slide

Sr.No.	Previous Specifications	Revised Specifications
1	Delux quality white sunmica coated] a streamlined slide cabinet consisting of 11 drawers in a vertical row. Drawers are fitted with small card frame and puller knob	Delux quality white sunmica coated, a streamlined slotted slide cabinet consisting of 10 drawers in a vertical row. Drawers are fitted with small card frame and puller knob

E-(04) Digital volume recorders

No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(05) Dale's bath for internal organs

Sr.No.	Previous Specifications	Revised Specifications
Title	<u>Dence bath for internal organs</u>	<u>Dale's bath for internal organs</u>

E-(06) Student organ bath with LCD display -

No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(07) Monocular Research Microscope with LED-

No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(08) 56 channel polygraph machine for research lab

Sr.No.	Previous Specifications	Revised Specifications
2	Should have inbuilt capability to record, , Spo2, pulse rate, moment , ambient light , ,6 EMG , IInd lead ECG and 25 EEG/EOG plus reference channel for complete staging .System should be supplied with accelerometer for activity monitoring	Should have inbuilt capability with required ransducers to record Spo2, pulse rate, heart sound , JVP,carotid artery pulsations, ECG/EEG/EMG/EOG, BP, Reaction time, GSR, Respiratory studies, HRV & Amphibian experiments (volume, isotonic, force) 32 channel digital EEG analysis system with brain mapping use of filters to examine frequency band (Alpha, Beta, Delta & Theta) 4 channel electromyography-Spontaneous, interference pattern motor unit potential, power spectrum Nerve conduction studies - Motor, Sensory ,F wave, N Reflex etc. Auditory, visual & somatosensory Evoked potential. spirometry- All volumes & capacities FVC,MVV etc. 12 lead stress test Analysis- Optically isolated amplifier Resting 12 lead ECG, Stress Test & Wireless patient cable. Dynamometer - Hand grip testing. Balance board/ Sensors for post urography & sway analysis.
5	The system should have the ability to work on battery so that there is no electrical interference coming to EEG signals.	The system should have the ability to work on battery so that there is no electrical interference coming EMG to EEG OR ECG signals.
6	Should have the ability to transfer data wirelessly/ Bluetooth from the patient side to the PC such that there are no wires connected from patient to acquisition PC also means full mobility to the patient.	To be deleted
7	Should have automatic analysis , detection of Apneas/Hypopneas, Bradycardia/Tachycardia's, O2 desaturations (Alpha ,Beta & Delta freq analysis)calculation of Average Freq Analysis , Body Position , Pulse Transition Time	To be deleted

E-(09) Digital gas analyser apparatus Haldane student type

Sr.No.	Previous Specifications	Revised Specifications
Title	Digital gas analyser apparatus halden student type	Digital gas analyser apparatus Haldane student type

E-(10) Automatic gas analyser, Automatic CO2, O2 (digital gas analyser)

M/s. Biotronics Equipments Pvt. Ltd, Thane submitted representation dt. 01.10.2018.

After discussion in the pre bid meeting, representation was overruled.

Sr.No.	Previous Specifications	Revised Specifications
•	The System should be provided with physical mixing chambers suitable for extremely high and low ventilation ranges.	The System should be provided with physical mixing chambers or breath by breath analysis suitable for extremely high and low ventilation ranges.

E-(11) Single Channel digital physiograph with accessories (TFT screen)

Sr.No.	Previous Specifications	Revised Specifications
	With time & event channel main console with 9 speed chart drive and stimulator.	Digital- TFT Screen (Monitor) with display 6" x 3.5" or more
	Couplers : Starin Gauge, Pulse Respiration	Couplers : Starin Gauge, Pulse Respiration
	Temperature, EKG and Bio - potential	Temperature, EKG and Bio - potential
	Transducers : Pressure, Muscle activity / force	Transducers : Volume & Pressure, Muscle isotonic activity & Force In built stimulator
	Respiration belt, Pules, Respiration & temperature	Transducers- Respiration Pulse, BP, Temperature, ECG,EMG,EEG,GSR,Hand grip & phonocardiogram
	Accessories : EKG electrode, EEG & EMG paste, V-pin junction box, 111 pin junction box, action potential electrode, 10 pkts of chart paper Z- fold and fuse	Accessories : EKG electrode, EEG & EMG paste, V-pin junction box, 111 pin junction box, action potential electrode, Respiration belt & Fuse
	To be Added	Requisite updated software for recording & interpretation and for printing recorded data from PC.

E-(12) Computerised Autonomic function Testing system-

M/s. Biotronics Equipments Pvt. Ltd, Thane submitted representation dt. 01.10.2018.

After discussion in the pre bid meeting, representation was overruled.

Sr.No.	Previous Specifications	Revised Specifications
	Test for pulse PPG, respiration airflow, LFT, Valsalva, HUT, Skin temperature, Hand grip test.	Test for pulse PPG, respiration airflow, PFT, Valsalva, HUT, Skin temperature, Hand grip test.
	At-least Dual Channel Bio-amplifier for recording 12 leads ECG, and EEG, EMG.	At-least Dual Channel Bio-amplifier for recording 12 leads ECG.

E-(13) Spectrophotometer (UV / Visible)

Sr.No.	Previous Specifications	Revised Specifications
	Photometric Working Mode: Transmittance, Absorbance, Energy, Concentration Quartz Cuvettes	Photometric Working Mode: Transmittance, Absorbance, Concentration Quartz Cuvettes with capacity.
	Scan speed: Fast, middle and slow selectable 3000nm/min	Scan speed: Fast, middle and slow selectable .
	to be added	1 ton split AC of reputed make UPS - 1/2 hour backup

E-(14) Fully automatic chemistry analyser

Sr.No.	Previous Specifications	Revised Specifications
1	System -Heavy duty floor model open integrated discrete multi channel, random access analyzer with automatic run capable of performing test like blood sugar, HbA1C, Amylase, Lipase, Uric acid,Lipid profile (Cholesterol, TG and direct HDL) , hormones, apolipoprotein, ADA, serum proteins, lipid profile, calcium, Phosphorous, Amylase, Lipase, Liver function tests (Bilirubin, AST, ALT, Alkaline Phosphatase, Gamma GGT),Kidney function tests (urea, Creatinine, cystatin C), immunoturbidimetric and electrolyte based on ISE etc.	System -Heavy duty floor/Beanch top model open integrated discrete multi channel, random access analyzer with automatic run capable of performing test like blood sugar, HbA1C, Amylase, Lipase, Uric acid,Lipid profile (Cholesterol, TG and direct HDL), apolipoprotein, ADA, serum proteins, lipid profile, calcium, Phosphorous, Amylase, Lipase, Liver function tests (Bilirubin, AST, ALT, Alkaline Phosphatase, Gamma GGT),Kidney function tests (urea, Creatinine, cystatin C), immunoturbidimetric and electrolyte based on ISE etc.
2	Throughput - Must be 600 Tests/Hour chemistry with ISE	Throughput - Must be minimum 500 Tests/Hour chemistry with ISE
7	SAMPLE DISK - Rotor type sample carrier with minimum 70 positions including 25 stat positions in patient run 20 positions for standard 2 blank, 8 controls and 2 ISE solutions.	SAMPLE DISK - Rotor type sample carrier with minimum 70 positions including minimum 20 stat positions in patient run 20 positions for standard 2 blank, 8 controls and 2 ISE solutions.
11	SAMPLE ASPIRATION VOLUME - 2-70 micro litres (in 0.2 micro litre increment)	SAMPLE ASPIRATION VOLUME - not more than 70 micro litres (in 0.2 micro litre increment)
24	QUALITY CETIFICATE - The manufacturer / supplier should be ISO/CE certified with proven track record in India with excellent service network throughout the country. (Service network details to be provided).	QUALITY CETIFICATE - The manufacturer / supplier should be ISO-13485/CE/FDA certified with proven track record in India with excellent service network throughout the country. (Service network details to be provided).
29	CONTROL AND MONITORING –Dedicated Computer with colour monitor, keyboard, mouse and laser printer. Facility to monitor reaction data, review data, correction, reagent monitoring. Facility to store patient data and good memory backup. System should have BIDIRECTIONAL interface for PC.	CONTROL AND MONITORING –Dedicated Computer with colour monitor, keyboard, mouse and laser printer. Facility to monitor reaction data, review data, correction, reagent monitoring. Facility to store patient data of atleast 10000 memory backup. System should have BIDIRECTIONAL interface for PC.
35	The reagents for like blood sugar, Amylase, Lipase, Uric acid, Cholesterol, TG and direct HDL, hormones, apolipoprotein, ADA, Hb A1 C, serum proteins, calcium, Phosphorous, Lipase, Bilirubin, AST, ALT, Alkaline Phosphatase, Urea, Creatinine, Cystatin C, Gamma GGT, immunoturbidimetric (CSF protein) for at least 200 tests for each chemistry along with controls and calibrators and an electrode with ISE buffer to be provided for at least 200 tests and for ISE electrode should accompany with the instrument free of cost for stat up of instrument.	The reagents for like blood sugar, Amylase, Lipase, Uric acid, Cholesterol, TG and direct HDL, apolipoprotein, ADA, Hb A1 C, serum proteins, calcium, Phosphorous, Lipase, Bilirubin, AST, ALT, Alkaline Phosphatase, Urea, Creatinine, Cystatin C, Gamma GGT, immunoturbidimetric (CSF protein) for at least 200 tests for each chemistry along with controls and calibrators and an electrode with ISE buffer to be provided for at least 200 tests and for ISE electrode should accompany with the instrument free of cost for startup of instrument.
39	WARRANTY - Two years warranty from date of installation. Should have CE/ FDA approved certificates.	WARRANTY - Two years warranty from date of installation. Should have ISO-13485/CE/FDA approved certificates.

E-(15) Semi Automatic chemistry analyser

Sr.No.	Previous Specifications	Revised Specifications
	Wave Length: 340nm-620nm, can be increased to 800nm (optional). 7 filters, 340, 405, 450, 505, 546, 578, 630 as standard configuration. (5 years warranty for each filter). Zero: Automatic	Wave Length: 340nm- 630 nm, can be increased to 800nm (optional). 7 filters, 340, 405, 450, 505, 546, 578, 630 as standard configuration. (5 years warranty for each filter). Zero: Automatic
	Display: 7.0 inch TFT Color touch screen, 260000 Pixel, 800x480 resolution; real time to show response curve	Display: minimum 6.0 inch TFT Color touch screen, 260000 Pixel, 800x480 resolution; real time to show response curve
	Built-in Thermal Printer: Built-in Thermal Printer, 57mm printer paper Paper alarm, transparent cover; easy installation	Built-in Thermal Printer, 57mm printer paper alarm, transparent cover; easy installation
	Absorbance range:0.0000-2.5000 (10mm flowcell) 0.0000-3.5000 (6mm flowcell)	Absorbance range:0.0000-2.5000 (10mm flowcell)
	Software: high-capacity storage; edit 200 assay program, 200000 results Unlimited storage by connecting to computer	Software: high-capacity storage; edit 200 assay program, Unlimited storage by connecting to computer
	USB Port: USB Mouse; USB keypad; USB Printer; 4 USB ports for Keyboard, Mouse, Printer, U Disk, Bar Code Reader. 1 USB Slave for PC connections (supports PC software control function).1 Ethernet port. Supports all printers; Computer control software.LIS system available. External scanner is available. Support remote diagnostics	USB Port: USB Mouse; USB keypad; USB Printer; 4 USB ports for Keyboard, Mouse, Printer, U Disk, 1 USB Slave for PC connections (supports PC software control function).1 Ethernet port. Supports all printers; Computer control software.LIS system available. External scanner is available. Support remote diagnostics
	to be added	Battery backup - 1/2 hour duration compatible computer

E-(16) Immuno Assay Analyser (Fully)

Sr.No.	Previous Specifications	Revised Specifications
Sr.No	Description	Requirement
2	Throughput 100 Test/hour or above in random bath & stat function	Throughput - Minimum 90 Test/hour or above in random bath & stat function
3	Time of First Result Not more than 20 minutes	to be deleted
6	Sample Tubes and Container Non Disposable Quartz	to be deleted
7	Sample & Reagent Probe needle Non Disposable Quartz	to be deleted
13	Operation System Window XP, Compatible with CPU, Color touch Screen& should have Rs 232 Port	Operation System - Latest Version of Windows or equivalent , Compatible with CPU, Color touch Screen& should have Rs 232 Port
14	Calibration Stability Minimum two weeks. Should have facility to view print calibration curve	Calibration Stability - Minimum two weeks. Should have preferably facility to view print calibration curve
16	2) Ton Split A/C with minimum 4 star rating	2) Two Ton Split A/C with minimum 4 star rating of reputed make.

16	11) Microalbumin-1000 test per year	to be deleted
17	L1 will be calculated taking into consideration- a) Basic cost of equipment b) Reagent/Kit cost as per above list for 2 years	L1 will be calculated taking into consideration- a) Basic cost of equipment b) Reagent/Kit cost as per above list for 2 years and cost per reportable test (CPRT).
19	23) Cost of essential accessories will be taken into consideration while calculating L1.	to be deleted
20	24) Cost of other accessories will not be taken into consideration while calculating L1	to be deleted
21	to be added	One 2 ton split AC of reputed make Battery Backup for 2 hours De ionizer plant Refrigerator 300ltrs. Capacity

E-(17) Electrolyte analyser

Sr.No.	Previous Specifications	Revised Specifications
15	L1 will be decided by the sum of Price of the equipment and close system consumables excluding of GST for 5 years for the workload of 100 tests per day.	L1 will be decided by the sum of Price of the equipment and close system consumables excluding of GST for 5 years for the workload of 100 tests per day. Cost per reportable test for Na, K, Cl should be quoted separately for work load of 100 test per day.
	to be added	Battery Backup - 1/2 hours

E-(18) Fully automatic random analyser

Sr.No.	Previous Specifications	Revised Specifications
1	System -Heavy duty floor model open integrated discrete multi channel, random access analyzer with automatic run capable of performing test like blood sugar, HbA1C, Amylase, Lipase, Uric acid,Lipid profile (Cholesterol, TG and direct HDL) , hormones, apolipoprotein, ADA, serum proteins, lipid profile, calcium, Phosphorous, Amylase, Lipase, Liver function tests (Bilirubin, AST, ALT, Alkaline Phosphatase, Gamma GGT),Kidney function tests (urea, Creatinine, cystatin C), immunoturbidimetric.	System -Heavy duty floor/ Bench top model open integrated discrete multi channel, random access analyzer with automatic run capable of performing test like blood sugar, HbA1C, Amylase, Lipase, Uric acid,Lipid profile (Cholesterol, TG and direct HDL) , apolipoprotein, ADA, serum proteins, lipid profile, calcium, Phosphorous, Amylase, Lipase, Liver function tests (Bilirubin, AST, ALT, Alkaline Phosphatase, Gamma GGT),Kidney function tests (urea, Creatinine, cystatin C), immunoturbidimetric.
2	Throughput - Must be 300 Tests/Hour chemistry	Throughput - Must be 400 Tests/Hour chemistry

7	SAMPLE DISK- Rotor type sample carrier with minimum 70 positions including 25 stat positions in patient run 20 positions for standard 2 blank, 8 controls and 2 ISE solutions.	SAMPLE DISK- Rotor type sample carrier with minimum 70 positions including minimum 20 stat positions in patient run 20 positions for standard 2 blank, 8 controls.
20	REACTION DISK -70-80 permanent hard glass cuvettes maintained at 37 C.	REACTION DISK - minimum 70-80 permanent hard glass cuvettes maintained at 37 C.
28	CONTROL AND MONITORING –Dedicated Computer with colour monitor, keyboard, mouse and laser printer. Facility to monitor reaction data, review data, correction, reagent monitoring. Facility to store patient data and good memory backup. System should have BIDIRECTIONAL interface for PC.	CONTROL AND MONITORING –Dedicated Computer with colour monitor, keyboard, mouse and laser printer. Facility to monitor reaction data, review data, correction, reagent monitoring. Facility to store patient data of minimum 10000 memory backup. System should have BIDIRECTIONAL interface for PC.
34	The reagents for like blood sugar, Amylase, Lipase, Uric acid, Cholesterol, TG and direct HDL, hormones, apolipoprotein, ADA, Hb A1 C, serum proteins, calcium, Phosphorous, Lipase, Bilirubin, AST, ALT, Alkaline Phosphatase, Urea, Creatinine, Cystatin C, Gamma GGT, immunoturbidimetric (CSF protein) for at least 200 tests for each chemistry along with controls and calibrators and an electrode with ISE buffer to be provided for at least 200 tests and for ISE electrode should accompany with the instrument free of cost for stat up of instrument.	The reagents for like blood sugar, Amylase, Lipase, Uric acid, Cholesterol, TG and direct HDL, hormones, apolipoprotein, ADA, Hb A1 C, serum proteins, calcium, Phosphorous, Lipase, Bilirubin, AST, ALT, Alkaline Phosphatase, Urea, Creatinine, Cystatin C, Gamma GGT, immunoturbidimetric (CSF protein) for at least 200 tests for each chemistry along with controls and calibrators and an electrode with ISE buffer to be provided for at least 200 tests and free of cost for start up of instrument.

E-(19) Practical lab (Modular) for 60 student set

Sr.No.	Previous Specifications	Revised Specifications
5	Stool in laboratory 60 As Per RC	to be deleted
6	Chair for demonstration room 60 As Per RC	to be deleted
7	Executive chair 15 As Per RC	Executive chair 05 no.
11	Cupboards 06 As per RC	Cupboards 06 - 6" with 4 Shelves
12	to be added	Executive table (6x4") wooden sunmica top with glass.

E-(20) 32 Seater Bus - No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(21) Autopsy table

Sr.No.	Previous Specifications	Revised Specifications
	to be added	Table size 104" (w)x54"(D)x34" (ht) approximately

(22) Fully automatic embedding system (heated embedding module & cold plate)- No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(23) Microscope for Students LED binocular with scanner, 10GA 40G & inbuilt battery backup power source

Sr.No.	Previous Specifications	Revised Specifications
	illumination 1. Light source: white X-LED ³ ; light intensity control using a knob on left side of the frame.	illumination 1. Light source: white LED light intensity control using a knob on left side of the frame.
	Stage 1)Double layer with mechanical sliding stage, size 233x147 mm, X-Y movement range 78x54 mm.	Stage 1)Double layer with mechanical sliding stage, size 150x150 mm, approximately X-Y movement range 78x54 mm.
	Objectives 1. Infinity corrected optical system IOS: - IOS N-PLAN 4x/0.10, W.D. 16.8 mm - IOS N-PLAN 10x/0.25, W.D. 5.8 mm - IOS N-PLAN 40x/0.65, W.D. 0.43 mm -IOS N-PLAN 100x/1.25, W.D. 0.13 mm (Oil/Water immersion)	Objectives 1. Infinity corrected optical system - N-PLAN 4x/0.10, W.D. 16.8 mm - N-PLAN 10x/0.25, W.D. 5.8 mm - N-PLAN 40x/0.65, W.D. 0.43 mm - N-PLAN 100x/1.25, W.D. 0.13 mm (Oil/Water immersion)
	Battery Back-up 3. Autonomy: over 6 hours at medium intensity (X-LED ³).	Battery Back-up 3. Autonomy: over 6 hours at medium intensity (LED).

E-(24) Trinocular microscope for diagnostic & research work

Sr.No.	Previous Specifications	Revised Specifications
8.	Fluorescence attachment with HBO 100 Watt Mercury burner Long Life 300hrs or better complete set with Fluorescence filters for Blue (FITC) & Green (TRITC) Excitation.	Fluorescence attachment with 100 Watt Mercury burner Long Life 300hrs or better complete set with Fluorescence filters for Blue (FITC) & Green (TRITC) Excitation.
9.	Objectives: Plan Semi Apochromat 5x/ N.A 0.15, (W.D. 13.70)	Objectives: Plan Semi Apochromat 4x/5x/ N.A 0.15, (W.D. 13.70)
10	Eyepieces: All Eyepieces should be Wide field focusable FOV25mm for both eyepieces 10x with rubber eye guard and cap Field of View Number 25mm.	Eyepieces: All Eyepieces should be Wide field focusable FOV25mm or higher for both eyepieces 10x with rubber eye guard and cap Field of View Number 25mm.
a	Optional Photographic Attachment 1. Digital Microscope Camera with Software for image capture 2. Digital Color Camera with CMOS sensor (1/2") 3. Image format 2048x1536 pixel, 3.1Mpixels 4. Fast live image XGA 1024x768 with 30 fps 5. Pixelsize 3.2µm x 3.2µm 6. Dynamic range >55dB / 600:1 7. Optimized Image Processing in HW (CIE-Lab) 8. Fast USB-3 connection, single cable with screw lock 9. Complete camera kit including Software for camera control, USB-3 cable 2.5m, PCI-express card with 2 USB-3 connections, Supported Operating systems Win7/Win8.Recommended c-mount adapter 0.5x	Optional Photographic Attachment 1. Digital Microscope Camera with Software for image capture 2. Digital Color Camera with CMOS sensor (1/2") 3. Image format 2048x1536 pixel, 3.1Mpixels 4. Fast live image 1024x768 with 30 fps 5. Pixelsize 3.2µm x 3.2µm 6. Dynamic range >55dB 7. Optimized Image Processing in HW (CIE-Lab) 8. Fast USB-3 connection, single cable. 9. Complete camera kit including Software for camera control, USB-3 cable 2.5m, with 2 USB-3 connections, Supported Operating systems Win10 or higher Recommended c-mount adapter 0.5x
	to be added	should be certified by CE/ISI/ISO

E-(25) Binocular research microscope-

No Changes were suggested by the bidder/s hence floated specifications remain unchanged.

E-(26) Deca Head Microscope

Sr.No.	Previous Specifications	Revised Specifications
4.	Revolving Nosepiece: Motorized Coded objective 6 position inward tilting	Revolving Nosepiece: Motorized Coded objective 6 position.
8.	Objectives: Plan Semi Apochromat 2.5x/N.A 0.07, (W.D. 9.40) 1. Plan Semi Apochromat 5x/ N.A 0.15, (W.D. 13.70)	Objectives: Plan Semi Apochromat 2x/2.5x/N.A 0.07, (W.D. 9.40) 1. Plan Semi Apochromat 4x/5x/ N.A 0.15, (W.D. 13.70)
a.	Optional Photographic Attachment 1. Digital Microscope Camera with Software. 2. Digital Color Camera with CMOS sensor (1/2") 3. Image format 2048x1536 pixel, 3.1Mpixels 4. Fast live image XGA 1024x768 with 30 fps 5. Pixelsize 3.2µm x 3.2µm 6. Dynamic range >55dB / 600:1 7. Optimized Image Processing in HW (CIE-Lab) 8. Fast USB-3 connection, single cable with screw lock 9. Complete camera kit including Software for camera control, USB-3 cable 2.5m, PCI-express card with 2 USB-3 connections, Supported Operating systems Win7/Win8.Recommended c-mount adapter 0.5x	Optional Photographic Attachment 1. Digital Microscope Camera with Softwar. 2. Digital Color Camera with CMOS sensor (1/2") 3. Image format 2048x1536 pixel, 3.1Mpixels 4. Fast live image 1024x768 with 30 fps 5. Pixelsize 3.2µm x 3.2µm 6. Dynamic range >55dB 7. Optimized Image Processing in HW (CIE-Lab) 8. Fast USB-3 connection, single cable. 9. Complete camera kit including Software for camera control, USB-3 cable 2.5m, with 2 USB-3 connections, Supported Operating systems Win10 or higher Recommended c-mount adapter 0.5x
	to be added	should be certified by CE/ISI/ISO

E-(27) Grossing station

Sr.No.	Previous Specifications	Revised Specifications
7.	The station should be made of noncorrosive high grade stainless steel. Exhaust with filters for formalin vapours should be available. It should be Equipped with a factory installed exhaust duct which can be connected to any in-house ventilation system.	The station should be made of noncorrosive high grade stainless steel (SS 316), rest of the body should be of SS 304, Exhaust with filters for formalin vapours should be available. It should be Equipped with a factory installed exhaust duct which can be connected to any in-house ventilation system.
11	Approximate size should be- breadth 6ft, depth 5ft, working area height 3ft.	Approximate size should be- breadth 6ft, depth 3ft to 5ft, working area height 3ft.
	to be added	should be certified by CE/ISI/ISO

E-(28) Automated rotary microtome

Sr.No.	Previous Specifications	Revised Specifications
5	Trimming thickness setting from 1 µm to 600 µm with step rim function.	Trimming thickness setting from 1 µm to 500 µm with step rim function.
8	Should have slow forward and backward coarse feed speed at 300 µm/s, fast forward speed at 800 µm/s and fast backward speed at 1800 µm/s.	Should have slow forward and backward coarse feed speed at 300 µm/s, fast forward speed at 800 µm/s and fast backward speed at 1700 µm/s.

21	The instrument should be certified with CE c-CSA-us, US-FDA, & DIN EN ISO 9001.	The instrument should be certified with CE from notified body/US-FDA, & DIN EN ISO 9001.
22	Instrument with High profile blades and low profile blades (100 unit each)	Instrument with High profile blades and low profile blades, pack of 50 blades (100 unit each)
	to be added	The rates of high profile blades and low profile blades should be quoted in the commercial bid. These rates will be freezed for 5 years.

E-(29) Semi automated rotary microtome

Sr.No.	Previous Specifications	Revised Specifications
5	Trimming thickness setting from 1 µm to 600 µm with step rim function.	Trimming thickness setting from 1 µm to 500 µm with step rim function.
8	Should have slow forward and backward coarse feed speed at 300 µm/s, fast forward speed at 800 µm/s and fast backward speed at 1800 µm/s.	Should have slow forward and backward coarse feed speed at 300 µm/s, fast forward speed at 800 µm/s and fast backward speed at 1700 µm/s.
21	The instrument should be certified with CE c-CSA-us, US-FDA, & DIN EN ISO 9001.	The instrument should be certified with CE from notified body/US-FDA, & DIN EN ISO 9001.
22	Instrument with High profile blades and low profile blades (100 unit each)	Instrument with High profile blades and low profile blades, pack of 50 blades (100 unit each)
	to be added	The rates of high profile blades and low profile blades should be quoted in the commercial bid. These rates will be freezed for 5 years.

E-(30) Cryostat

Sr.No.	Previous Specifications	Revised Specifications
19	Certified with DIN EN ISO 9001, c_CSA_us and IEC	Certified with CE from notified body / US FDA.
	Essential Accessories should be supplied with the instrument. 3. High and Low profile blades – 5 packets each	Essential Accessories should be supplied with the instrument. 3. High and Low profile blades – 5 packets each (Pack of 50 blades)
	to be added	The rates of high profile blades and low profile blades should be quoted in the commercial bid. These rates will be freezed for 5 years.

E-(31) Deep freezer

Sr.No.	Previous Specifications	Revised Specifications
2.	Capacity (gross):≥ 140 litres (up to 200L)	Capacity (gross)- 200L
4.	Net (Interior compartment) WxDxH approximately 47cmx43cmx69cm	Net (Interior compartment) WxDxH approximately 47cmx43cmx69cm - outer chamber should be of SS.

E-(32) Cold Chamber-

The Tender no E-32 (18-19) is cancelled due to administrative reason.

E-33 (18-19) Revised Spec- Biosafety cabinet- All bidders should quote as per revised specifications as follows

Biological Safety Cabinet (BSC) Class 2A with thimble ducting and with UPS	
1.	The BSC to meet the requirements of class IIA2 NSF 49 or class II EN 12469; specifically, with regard to inward airflow (≥ 0.40 m/s according to EN 12469:2000 or ≥ 0.50 m/s according to NSF 49:2004).
2.	External height ≤ 2200 mm including support stand, allowing an available space of at least 400 mm from the top of the BSC to the ceiling. Higher versions may be accepted, provided the 400 mm over the BSC is available to measure air velocity above the exhaust filter, and to have enough space for changing the filter and for ducting and/ or a thimble connection to outlet.
3.	Internal working area (approximate): W 1150mm \times D 630mm \times H 650–750mm.
4.	Inside finish: stainless steel (SS), high quality (e.g. grade 304).
5.	External housing, including screws, made of SS or equivalent resistant galvanized (zinc-coated) sheet steel, subsequently powder coated and thermally hardened; minimum 80 μ m thick, or other material that is hard-wearing, resistant to disinfectants and chemicals used in a laboratory and abrasion resistant.
6.	Vertically adjustable sliding window: aerosol-tight, sliding, safety glass (laminated multilayer safety glass only), thickness ≥ 6.7 mm, counterbalanced.
7.	High optical transmission, but absorption of UV light; minimal reflection.
8.	Working aperture: ≥ 170 mm measured from work surface to the bottom of the sash window.
9.	Maximal lifting height of front window: 500 mm.
10.	Ability to lock the window hermetically for gaseous disinfection for filter decontamination.
11.	Single-piece working surface with integrated (V-shaped) front air grill.
12.	Noise pressure level: ≤ 60 dbA.
13.	Internal fittings
a.	Two plugs, 230 \pm 10 V, AC, 50 Hz, protected with separate T5A (slow blow) fuse.
b.	Voltage and plugs adapted to those used in the country. The line cord / Power cord supplied with the equipment shall be of acceptable durability, length, and current carrying capacity complying with Indian Standards.
14.	Flicker-free, low-glare, warm-coloured light, >1000 lux.
15.	Control display on the front of the BSC should display
a.	Electrical control or indicators.
b.	Electronic fan control.
c.	Flow meter for air inflow velocity.
d.	Flow indicator or meter for air down flow velocity.
e.	Operating hours indicator (counter).
f.	Optional: UV light timer.
g.	Filter and flow conditions.
16.	Ultraviolet C (UVC) light (253.7 nm wavelength); 30 W with hour counter; with interlock with white light so that the UVC light can be switched on only when the white light source is switched off.
17.	Gas tap with solenoid valve, optional right or left side.
18.	High-efficiency particulate air (HEPA) filter (exhaust air filter); classification at least H14; conforming with EN 1822; metal framed.
19.	Air down flow velocity:
a.	NSF 49–2002: Requires compliance with the manufacturer's set points, or down flow velocity with a deviation of <0.025 m/s from a nominal set point.
b.	EN 12469: Airflow velocity should be between 0.25 and 0.50 m/s and is defined by the manufacturer according to the construction. Additionally, no individual measurement should differ by more than 20% of the value requested by the manufacturer within the limits given.
20.	Air circulation volume flow: 700–1200 m ³ /h.
21.	Influx air velocity:
a.	According to NSF 49, the average airflow velocity at front aperture should be 0.51 m/s for class A2.
b.	EN 12469 does not sub classify within class II BSC. The average airflow velocity at front aperture should be at least 0.4 m/s, according to the manufacturer's specifications.
22.	Exhaust volume airflow/fresh airflow inward: 300–600 m ³ /h.
23.	Blower system should be able to maintain the airflow within a minimum window (narrow limits) on voltage fluctuations, data to be available on request.
24.	Alarms, visible and/or audible, for any unsafe condition of the BSC (e.g. airflow, window position, hardware or software errors). Possibility to shut down alarm for cleaning and maintenance.
25.	Electricity requirements
a.	Supply voltage: 230 \pm 10 V, AC, 50/60 Hz. The line cord / Power cord supplied with the equipment shall be of acceptable durability, length, and current carrying capacity complying with Indian Standards.

b.	Lead fuse T16A (slow blow) or circuit breaker B16.
c.	Power consumption (approximate): 600 W.
d.	Power consumption for plugs inside: Approximately 1000 W.
e.	Conform to electrical safety standards IEC 60601-1, UL 61010-1, EN 61010-1.
f.	Protection class (in accordance with EN 60529).
g.	Designed not to interfere with circuit radio (in accordance with EN 55014).
26. Documentation	
a.	Manufacturer's certificate The manufacturer must have a management system certified to ISO 9001.
b.	The manufacturer to individually test each BSC before shipment. The test report to be provided to the customer, with a duplicate fixed to the BSC. The tests to be performed with research-grade instruments for valid calibration according to test methods outlined in EN 12469 or NSF 49.
c.	The test report to contain at least data on:
i.	inflow air velocity
ii.	downflow air velocity
iii.	filter leak scan for both filters to document filters' efficiency and integrity.
d.	Quality and safety standards met by the product to be listed.
27. Accessories	
a.	Table or support frame (support stand) for a working height of 78 ± 2 cm, adjustable at least at three points (feet) to level.
b.	Ergonomic laboratory chair , designed for infectious laboratory areas:
i.	adjustable height to suit different users, seat range approx 400–490 mm
ii.	adjustable-angle back rest (no arm rest)
iii.	caster wheels (five)
iv.	all metal parts chrome plated
v.	disinfectable with alcohol-containing disinfectants.
28.	Thimble Ducting: Air duct construction with thimble to exhaust air from the BSC. The air duct to be made for the BSC offered and fit precisely and to be ducted to the outside. The thimble should fit over the cabinet's exhaust housing, sucking the air expelled from the cabinet into ducts that lead outside. A small opening (usually 5 cm wide) to be maintained between the thimble and the cabinet's exhaust housing. This opening should enable room air to be drawn into the exhaust ducting system. The thimble should be removable or be designed to allow for operational testing of the cabinet. The power of the external extraction fan installed at the end of the ducting should exceed the volumetric flow rate of each BSC by 30–50%, and should be controllable and connected to an uninterrupted power supply. The air from the BSC should be ducted with ventilation pipes that have a diameter exceed 20 cm. The extractor fan assembly must be easily accessible and preferably kept at the end of ducting with stable fitting. Ducting design should be straight and number of bands should be minimal, bend should be round shaped (sharp/ square bends should not be used). Ducting should have adjustable balancing dampers with easily accessibility so that flow can be controlled as and when required.
29.	All standard accessories, consumables and parts required for the proper installation, operation and maintenance of the BSC to be included in the offer by the supplier and to be specified and quantified.
30.	Installation: The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail. The bidder to also provide user training (including how to use and maintain the equipment) and a comprehensive maintenance plan. The cost of the maintenance plan to be defined and guaranteed over the period of warranty.
Initial on-site testing (aerosol leak test, recirculating air filter, exhaust air filter, airflow measurements inside the BSC and inward/exhaust airflow) to be carried out by a certified expert and certified compliant for satisfactory installation and safe operation. Measurement results to be printed out for documentation in the maintenance record.	

E-(34) CO2 Incubator

Sr.No.	Previous Specifications	Revised Specifications
17.	Incubator Sterilizer - UV method	Incubator Sterilizer - UV method/heat
	to be added	2 cylinders should be supplied with the instrument. Should be certified by CE from notified body/US FDA/ISO: 9001

5. **All the tenderer should note the above modifications in the Specification and do accordingly.**
6. The Directorate of medical Education & Research reserves the right to increase or decrease the quantity of tendered equipments and reserves the right to reject the tender without any reason thereto.

For e-tendering help/information , please contact.

Website:-<http://dmer.maharashtra.etenders.in> **Email** :-mbranchdmer2 @gmail.com

Contact No.:- 91-022-2620361-65 (Ext. 338 / 339 / 340)

Sd/-
Director
Medical Education & Research, Mumbai