Amendment No. 1

27-11-2017

Sub: Amendment to the Tender Enquiry.

Ref: HITES/PCD/MP/03/PRECLINICAL/17-18 Dated:27.10.2017

The following changes/Clarifications have been authorised and are being incorporated in the above referred Bidding Document.

SECTION – I
NOTICE INVITING TENDER (NIT)

Existing:

(1)

Sl No	RFx No	Equipment	Quantity	EMD	Tender Processing Fee
23	3000002365	ELISA Reader(Demonstration)	7	590	28,000
34	3000002376	Elisa Reader,washer&dispenser	9	2,360	180,000
37	3000002379	Microscope Trinocular (Teacher)	42	590	16,800
56	3000002398	Binocular Research Type With Camera Attachment	7	590	5,600

(2)

Sl. No.	Description	Schedule
c.	Closing date & time for submission of online bids	29.11.2017, 06:00 PM
d.	Closing date & time for submission of **tender processing** fee and EMD in physical form*	30.11.2017, 02:00 PM
e.	Time and date of opening of online bids	30.11.2017, 02:30 PM

Read As:

(1)

Sl No	RFx No	Equipment	Quantity	EMD	Tender Processing Fee
23	**3000002365**	**ELISA Reader(Demonstration)**	**Deleted.**		
34	**3000002376**	**Elisa Reader, washer & dispenser**	**16**	**2,360**	**320,000**
37	**3000002379**	**Microscope Trinocular (Teacher)**	**49**	**590**	**19,600**
56	**3000002398**	**Binocular Research Type With Camera Attachment**	**Deleted.**		

(2)

Sl. No.	Description	Schedule
c.	**Closing date & time for submission of online bids**	**13.12.2017, 06:00 PM**
d.	**Closing date & time for submission of tender processing fee and EMD in physical form***	**14.12.2017, 02:00 PM**
e.	**Time and date of opening of online bids**	**14.12.2017, 02:30 PM**

SECTION - VI
LIST OF REQUIREMENTS

Existing:

Sl. No.	Rfx. No.	Equipments	Qty. for Vidisha&Ratlam	Qty. for Chindwara, Dataia, Khandwa, Shahdol& Shivpuri	Department	Total Requirement for 07 colleges
23	3000002365	ELISA Reader(Demonstration)	1	1	Biochemistry	7
34	3000002376	Elisa Reader, washer & dispenser	2	1	Microbiology	9
37	3000002379	Microscope Trinocular (Teacher)	5	5	Microbiology	42
			1	1	Pathology	
56	3000002398	Binocular Research Type With Camera Attachment	1	1	Forensic Medicine	7

Read as:

Sl. No.	Rfx. No.	Equipments	Qty. for Vidisha&Ratlam	Qty. for Chindwara, Dataia, Khandwa, Shahdol& Shivpuri	Department	Total Requirement for 07 colleges
23	**3000002365**	**ELISA Reader(Demonstration)**	**Deleted.**			
34	**3000002376**	**Elisa Reader, washer & dispenser**	**1**	**1**	**Biochemistry**	**16**
			2	**1**	**Microbiology**	
37	**3000002379**	**Microscope Trinocular (Teacher)**	**5**	**5**	**Microbiology**	**49**
			1	**1**	**Pathology**	
			1	**1**	**Forensic Medicine**	
56	**3000002398**	**Binocular Research Type With Camera Attachment**	**Deleted.**			

SECTION - VII

A. TECHNICAL SPECIFICATION:

SCH 04. Microscopes Monocular (Rfx no. 3000002346)			
Sl. No	**Tender Page & Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
1	Page 47	Mechanical stage-low drive Co-axial control, having X & Y movement of 55mm and 75mm.	Mechanical stage-low drive Co-axial control, having X & Y movement of 55mm and 75mm (±5)
2	Page 47	C0- axial coarse and fine focusing with focusing lock.	Co- axial coarse and fine focusing on both sides with focusing lock.
3	Page 47	Abbe condenser NA 1.2.5, with iris diaphragm movable on Rack & Pinon.	Abbe condenser NA 1.25, with iris diaphragm movable on Rack & Pinon or with Adjustable
4	Page 47	accessories-day refector, dust cover. should be supplied reflective mirror.	Accessories-day refector, dust cover. Illumination should be day light with double side plano concave reflective mirror detachable. Reachargeable LED light source should be provide for observation.
5			**Added Para:-**"Should be European CE/ USFDA/BIS approved product."
SCH 05. Dissection microscope (Rfx no. 3000002347)			
Sl. No	**Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
1	A.1	Straight binocular type wide field (10 x)	Eye piece: Inclied at 30 deg binocular type wide field (10 x)

2	A.7	Halogen illuminations 150W with power supply.	Eye piece: 12V 100W Halogen**/LED Illumination**
3	A.8	Should have 3 spare lamps with each unit.	Should have 3 spare lamps with each unit.(Not required if LED light source)
SCH 07.SLEDGE AND FREEZING MICROTOME (Rfx no. 3000002349)			
		Description of Function A sledge microtome where the sample is placed into a fixed holder (shuttle), which then moves backwards and forwards across a knife. Freezing microtome is used for cutting thin to semi-thin sections of fresh frozen tissue Radial Cutting facility Knife: 3 1/4" (8cm) Section Thickness: 5 microns and up Calibrated 5-40 microns Sledge Cutting Knife: 6 2/3" (17cm) Section Thickness: 0.4 microns and up Calibrated -12 microns Freezer for Microtome Temperature Range: -40°C to +100°C Resolution: 1/2 amp (curr. readout) 0.1°C, digital display Heat Removal: ½ liter/min. Tap water or circulating pump & tank unit Accessories: Thermocouple microprobe Automatic protection against overheating in case of water supply failure Controller can be used as an independent digital thermometer and needle microprobe should be provided for this purpose. Power Supply Power input to be 220-240VAC, 50Hz Standards, Safety and Training CE/ BIS approved product.	1. Freestanding cryostat with encapsulated, splash-proof microtome. Spacious, stainless-steel cryochamber with antiglare illumination. Easy to clean and disinfect. 2. Low-maintenance microtome with cross roller guides. Reproducible, high-quality thin sections via stepper motor specimen feed. 3. Handwheel manually lockable in two positions. 8° XYZ specimen orientation with zero point reference. 4. Cryochamber temperature selection from 0 °C to -30 °C, adjustable in 1K increments. 5. Should have disinfection systems like chemical disinfectant spray/ UV light / Fumigations 6. Easy-to-clean, actively cooled specimen preparation zone with quick-freezing shelf for up to 10 specimens with max. temperature -35°C. 7. Cryochamber may be defrosted manually and via automatic hot-gas defrosting once every 24 hours. The cycle may be programmed in 15-minute increments. 8. Defrost cycle: 12 minutes. Cryochamber and quick-freezing shelf can be defrosted manually and are equipped with an acoustic warning signal to prevent unintentional defrosting. Manual defrost cycle for chamber and quick-freezing shelf: 12 minutes. 9. Section thickness selection from outside the cryochamber. Sectioning thickness range: 2-60 µm, selectable in 0.5 µm increments from 2-5 µm; selectable in 1 µm increments from 5-20 µm; selectable in 5 µm increments from 20-60 µm. 10. Total vertical specimen stroke: 59 mm Total horizontal specimen feed: 25 mm 11. Motorized coarse feed in 2 speeds: slow is max. 600 µm/s and fast is min. 900 µm/s. 12. Step function: 20 µm each time the key is pressed at slow coarse feed speed. 13. Control panel with membrane-protected buttons and locking function. Self-explanatory symbols for all essential functions and displays. 14. LED display for cryochamber temperature, actual time, defrost time, and section thickness selection. Visual indication of specimen stop positions (Front/Home). Seite 4/10 15. Manufactured in compliance with FDA or CE standards. 16. Accessories should be quoted along with the instruments-4 Specimen discs- 25 mm, 4 Specimen discs 30 mm, 1 bottle of freezing medium, 1 Section waste tray, 1 Storage shelf, right 1 Storage shelf, left ,1 Brush shelf, 1 Cover for freeze shelf, 1 Transfer block for specimen discs, large, 1 Tool set.
SCH 08. BINOCULAR MICROSCOPE (FOR STUDENTS) (Rfx no. 3000002350)			
Sl. No	**Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
1	4	Binocular observation tube with inclination of 30 degrees.	Siedentopf Binocular observation tube with inclination of 30 degrees.
2	5	Built in torque adjustable focusing knob.	Built in torque adjustable focusing knob. Coaxial Coarse & Fine focusing should be on both sides
4	6	Mechanical stage with rigid hand coaxial control.	Mechanical stage with rigid hand coaxial control, with double

			slider holder
6	8	Freely revolving (Inwards & outwards) Quadruple nose piece (for objectives).	Freely revolving (Inwards) Quadruple nose piece (for objectives)."
8	11	Eye piece 10X with F.N. 20mm.	Eye piece 10X with F.N. 18mm."
9	18	Should be supply with projection screen minimum size of 4x3 Feet.	Deleted
13			Added Para:-"Should be BIS/European CE certified (from notified body no) / US FDA certified."
SCH 09. BINOCULAR MICROSCOPE projection screen for Teaching (Rfx no. 3000002351) Read as:- Trinocular MICROSCOPE screen for Teaching			
Sl. No	**Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
1	1	Binocular microscope with universal infinity corrected optical system.	Trinocular microscope with universal infinity corrected optical system.
3	5	Built in torque adjustable focusing knob.	Built in torque adjustable focusing knob with stage lock.
5	8	Freely revolving (Inwards & outwards) Quadruple nose piece (for objectives).	Freely revolving (Inwards) Quadruple nose piece (for objectives).
6	16	Should be CE certified/FDA /BIS approved product.	Should be CE certified with four digit notified body no./FDA /BIS approved product.
7	18	Should be supply with projection screen minimum size of 4x3 Feet.	Should be suppied with 5 MP Camera and 42" Screen with all accessories and all required software for operating camera with HDMI and Ethernet/USB conectivity (Camera suppied should be scientific grad) ."
SCH 10. Polygraphs (Rfx no. 3000002352)			
Sl. No	**Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
1	2	ECG recording with all leads, Phono cardiogram to record heart sounds and correlate the sound with the electrical events of the cardiac cycle	ECG recording with all leads, Phono cardiogram to record heart sounds and correlate the sound with the electrical events of the cardiac cycle **and vector analysis.**
2	3	Blood Pressure	**Continuous Beat to Beat Blood Pressure monitor for tilt table test.** **Tilt table should be supplied with motorized tilt (0 to 90 °)**
4	1	Number of channels: 8	Number of channels: **4 or more**
5		Transducers & couplers: Pressure, Plethysmography, strain gauge. Isotonic & Isometric Force. Respiration, Pulse. Surface Temperature probe. Biopotential. Internal Temperature probe. GSR Electrode; and any other needed for the measurement of the above parameters.	Transducers and Couplers , **Blood Pressure, Volume fore-Arm Plethymography, Nasal temperature probe instead of Pressure, Plethymography, Internal temperature probe as this provide the exact requirement of the scientist.**
6			**Added Para:** The Analysis software for ECG, HRV, Blood pressure, Cardiac output, Valsalva manuer, Deep breathing test , Hand grip etc must be provided with the system.
	SCH 11. Gas analyser automatic for CO2, O2, N2 (Rfx no. 3000002353)		
	Sl. No	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
	1	High speed USB based recording unit along with Gas analyzers, spirometer amplifier, flow-head and other transducers and accessories.	High speed USB based recording unit along with Gas analyzers, Spirometer amplifier, flowhead and other transducers and accessories **for wireless belts with ECG, respiration, skin temp, Activity, SPo2 and GSR applications.**
	2		**Added Para:** Advance Time and frequency based Hear rate variability and metabolic analysis software features.
	3		**Added Para:** Dedicated computer i5 processor, 4 GB RAM, 1 TB HDD, 24 inch LED monitor, UPS and other accessories or better.
SCH 12. Multi channel Physiograph, 3 channels (Rfx no. 3000002354)			
Sl. No	**Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**

1	1	Console with time & Event channel and stimulator for human experiments	**TFT /LCD** Console with time & Event channel and inbuilt stimulator for human experiments"
2	19	Chart paper Z folds 250 folds 10 nos	Deleted
3	24	Ink ½ Ltr	Deleted, (all required accessories for analoge system.)
4			Added para:- " GSR Electrodes- 02 Nos"
	SCH 13. GAS ANALYSIS APPARATUS, HALDANE'S STUDENTS TYPE (Rfx no. 3000002355)		
	Sl. No	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
	1		**Added para :-** **1.** Transducers kit for Blood pressure, Heart sound, Polar heart rate, Grip strength, muscle power, RMS fatigue and foot switch should be provided with the system. 2. Software should allow student to perform step by step protocol for the individual respiratory gas analysis experiments during their practicals. 3. Dedicated computer i5 processor, 4 GB RAM, 1 TB HDD, 24 inch LED monitor, UPS and other accessories."
	SCH 14. Student Physiograph, (single channel) (Rfx no. 3000002356)		
	Sl. No	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
	1	Student Physiograph should be single channel console with 9 speed (.5,1,2,5,10,20,25,30 & 50 mm/sec) chart drive, time & event markers and appropriate transducers and stimulator	Student Physiograph should be single channel console with 9 speed (.5,1,2,5,10,20,25,30 & 50 mm/sec) **TFT/LCD** display, time & event markers and appropriate transducers and inbuilt stimulator
	2	Transducers: Pressure, volume, muscle activity/ force, Isotonic fine movement	Transducers: Pressure, volume, muscle activity/ force, Isotonic fine movement, (EEG /EOG/EMG disc electrodes, GSR transducer, Pulse Transducer, ECG Electrodes, Respiration belt, Temperture Electrode for Human Physiology).
	3	Ink bottle EP to EP lead Perpex pen Steel wire Motor Belt Chart paper Z- fold	Deleted
	SCH 15. Digital Physiograph (Rfx no. 3000002357)		
	Sl. No	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
		Should be able to record Bio-Electrical Potential e.g. EEG, ECG, ENG, EMG, Pulse, Respiration, Blood Pressure etc. It should be made of light metal for compactness and lightness. Student physiograph should be Eight channel console with 9 speed (0.5,1,2,5,10,20,25,30 & 50 mm/sec) chart drive, time & event chart, transducers and stimulator Couplers: Strain Gauge, isotonic, Pulse Respiration, temperature, EKG and Bio- Potential Transducers: Pressure, volume, muscle activity/ force respiration belt, Isotonic fine movement, pulse, respiration & temperature Data Acquisition System to convert data from physiograph to a computer with HRY and independent ECG Recording system with software and computer should be supplied with system. System Configuration Accessories, spares and consumables Earth Lead EKG electrode EEG & EMG paste(Surface electrods) III Pin junction box, action potential electrode V-pin junction box	• The System Should be able to record the Pulse, respiration, Bio-potentials like (EEG, ECG, EMG, EOG etc), , BP, heart sound , NCV, HRV, Hand dynamometer, Sway analysis, Reflex & reaction time, Peak Analysis, Pulse Transit Time and plethysmography etc. Technical Specifications:- • Number of inputs 4 channels. • 2 amplifiers for recording bio-potentials &2 general purpose amplifiers channels. • 1 stimulation unit capable of delivering square wave pulse of user defined parameters, Voltage range 0-10V, pulse duration range 1-1000msec, frequency range 0-100Hz, Current range 0-20mA,Integrated and synchronised with software. • Data Sampling frequency more than 10Khz and linked to the computer through high speed USB2 port • Facility for ECG leads (I, II, III, aVL, aVF, aVR etc) with real time cardiac axis and vector analysis. • Four force sensor balance board for body sway analysis that communicate with the software. • Software with step by step instructions, protocol and experimental design for performing various experiments in

		Chart paper Z- fold ,Fuse Power Supply Power input to be 220-240VAC, 50Hz Suitable UPS with One Hr backup Documentation Manufacturer should have ISO certification for quality standards Should have FDA/CE/BIS certification	physiology teaching applications. Also should have sample data for animal experiments for demonstrating to the students. • Online facility for students to preview and analyse the data from anywhere outside the laboratory through internet would be preferable.(Optional) • Licensed Software: It should have various automatic analysis modules for ECG, HRV, Blood Pressure, Peak analysis, spike histogram etc • Real time data streaming with Excel, MatLab and other common formats. • Necessary certificate for safe use for human. • Dual core i3 processor based desktop computers with DVD RW, 4 GB RAM, HDD 500 GB, 19" LED Monitor, Original Windows OS, UPS and suitable printer should be supplied. • Demonstration and training at site • ISO, IEC and other safety and quality certificate.

SCH 16. ECG Machine single chanel (Rfx no. 3000002358)

Sl. No	Para	EXISTING SPECIFICATION	AMENDED SPECIFICATION
1	**3.2**	Should have Artifact, AC, and low and high pass frequency filters.	Should have Artifact, AC, and low and high pass frequency filters/or equivalent filter .

SCH 27. ECG- 6 Channel (Rfx no. 3000002369)

Sl. No	Para	EXISTING SPECIFICATION	AMENDED SPECIFICATION
	3.2	Should have Artifact, AC, and low and high pass frequency filters.	Should have Artifact, AC, and low and high pass frequency filters/or equivelent filter .

SCH 33. Deep Freezer(-80 °C) (Rfx no. 3000002375)

Sl. No	Para	EXISTING SPECIFICATION	AMENDED SPECIFICATION
1	9	Freezer should have the sample (2" vials) capacity of 50,000 or more.	Freezer should have the sample (2" vials) capacity of 20,000 or more."

SCH 34. Elisa Reader,washer&dispensor (Rfx no. 3000002376)

Sl. No	Para	EXISTING SPECIFICATION	AMENDED SPECIFICATION
1	4	**A. Elisa Reader:** Light Source : Quartz Halogen	Light Source : Quartz Halogen/ LED instead of only Quartz Halogen.
5	16	**A. Elisa Reader:** Facility to store at least 50 assay protocols	Deleted
6	17	**A. Elisa Reader:** Printer: Built in graphical thermal printer and option for external printer connectivity	Deleted
7	20	**A. Elisa Reader:** Optional accessories to be priced separately: Halogen lamp: qty 5 96 well micro plates: qty 100	Optional accessories to be priced separately(if required) : Halogen lamp: qty 5 96 well micro plates: qty 100
9	11	**B. Elisa Washer:** Optional: Battery with a rechargeable battery pack and main power DC transformer/UPS System with 1 hr. power backup.	UPS System with 1 hr. power backup.
12			Added para:- A. Elisa Reader: System should USFDA or European CE approved. Also the system should be IVD approved B. Elisa Washer:

			System should USFDA or European CE approved. Also the system should be IVD approved
SCH 37. Trinocular RESEARCH MICROSCOPE (Rfx no. 3000002379)			
Sl. No	**Para**	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
1	3	Choice of different powers of objectives (long barrel 4X, 10X, 40X spring, 100X oil, spring). Objectives should be flat apochromatic.	Choice of different powers of objectives (PLAN 4X, 10X, 40X spring, 100X oil, spring). Objectives should be PLAN achromatic."
3	4	Eyepieces with pointer (paired and compensating) 10X (FOV 20 or more)	Eyepieces with pointer (paired and compensating) 10X (FOV 22 or more)
5	13	High resolution Digital CCD Camera with resolution: 12.0 mega pixels	Dedicated microscopy High resolution High Definition Digital Scientific Grade CCD / CMOS Camera with resolution: 5 MP or better.
10	15	16mm lens	Deleted
13	16	Macro viewing tube	Deleted
16	24	Automatic Image amalgamation	Deleted
18	26	Microscope, Digital imaging system and software should be of the same brand and same manufacturer to ensure complete compatibility and optimum performance.	Microscope, Camera and software should be of the same brand and same compatibility and optimum performance.
19	28	Should be CE or FDA approved	European CE certified (with four digit notified body no.) / US FDA certified.
	SCH 38. Serum inspissators (Rfx no. 3000002380)		
	Sl. No	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
	1	Capacity for up to 156 test tubes (16mm diameter x 150mm long) or min 100 McCartney bottles	Capacity for up to 156 test tubes (16mm diameter x 150mm long) or 162 universal containers or min 100 McCartney bottles
	2	Double walled. Inner SS 304 and outer GI.	Double walled. Inner SS and outer GI/MS with power coated.
	3	Full length inner glass or acrylic door for clean view.	A blanket should be placed over the containers to exclude draughts and a quilted cover provides thermal insulation. Blanket and quilt should be supplied along with system are made from insect-resistant materials.
	4	Should bear an ISI mark	European CE certified (with four digit notified body no.) / US FDA certified.
	SCH 39 Automated Blood culture system		
	Sl. No	**EXISTING SPECIFICATION**	**AMENDED SPECIFICATION**
	1	Should have modular design which is upgradeable and should be FDA approved	Deleted
	2	Capacity: 400 bottles	400 or more bottles
		Electrical Safety conforms to standards for electrical safety IEC-60601/IS 13450	Electrical Safety conforms to standards for electrical safety IEC-60601/IEC 61010-1/IS 13450
		Should be FDA/ CE/ ISI approved product.	European CE certified (with four digit notified body no.) / US FDA certified.

All other contents of the tender enquiry including terms & conditions remain unaltered.