GC WOMEN UNIVERSITY SIALKOT

Office of the Purchase Officer

Tel# 052-9250649

TENDER FORM FOR LABORATORY EQUIPMENT TENDER OPEN DATE 25-06-2018 TIME 12:00 PM

NOTE:

- ➤ Vendors must quote their rates on the company letter pad / tender form according to the specifications. Hand written quoted rates will not be accepted.
- ➤ The Procurement will be in accordance with the rules 38(1) (Single stage one envelope procedure) of Punjab Procurement rules 2014.

SR .#	NAME OF ITEM	SPECIFICATIONS	QT Y.	PRICE WITH GST
•#			Y.	WIIHGSI
1.	Desktop	Screen Size 15' to 19' inch, Processor, memory 2 GB,	4	
	Computers	Hard drive 500 GB, Display LED, Operating System	4	
	Beakers 100ML	window, CPU i7 Borosilicate glass, Color clear, Temperature		
2.	Beakers Toolvil	Resistance up to 560 C, OD 20mm)	100	
	Oscilloscope	Digital Bench top oscilloscope, 100 MHz, Color TFT, LCD, 100V to 240 V input Voltage, Sample		
3.		rate I GS/s, Interface 1 C, SPI, UART, USP, Channel	4	
		2, Long Memory, Replay Mode, Ultra quick boot		
		time, with all accessories		
	Neon flash lamp	Mega Ohm Resistances box, Neon flash lamp		
4.	apparatus	apparatus with all the accessories (Capicitor 0.2	4	
	D 14	micro farad, connecting wires etc.)		
5.	Desktop	Processor i5 3.2 GHz, Hard Disk: 500 GB, Memory	21	
	Computers Electrophoresis	4GB, DVD/RW, HD graphics, 19 " LCD Vertical with recommended power supply BPS-2		
6.	apparatus with	Bio base	1	
0.	power pack	Dio cuse	•	
	1	Single bloc 96wells, maximum heating range 3.4 deg		
	Gradient PCR	/ sec.		
7.	thermal cycler	Block temperature Range up to 105 degC	1	
	thermal cycles	Maximum protocols storable 10,000, 7 inch TFT		
	G. 1.77. 1	screen color touch screen		
	Stabilizer and Power Bank along	Stabilizer and Power Bank along with batteries,		
8	with batteries,	Assembled as per load of equipment	1	
	Assembled as per		1	
	load of equipment			
	4 4	Power Requirment: Suitable to operate on 220V,		
		Single Phase, 50Hz, AC Supply, Temperature range:		
	G07. 1	5C above to ambient to 150 C, Temperature sensor:	_	
9	COD Apparatus	platinum 100 (RTD Probe), Temperature Controller:	1	
		Micro-processor based PID Digital Temperature ControllerCum Indicator – Feather Touch Controls		
		LED Dual, Display Both for Process Value (PV) and		
		LLD Duai, Display Doill for 1 focess value (r v) and		



			•	
		SET Value(SV), Rating (kw) 1.0 kw Heating Block: Thick Polished Aluminum Block, Sample Capacity: 15 Holes for accommodating 15 Glass Tubes of 38 mm Diameter, Sample Size: 20 ml Glass Air Condenser:15 Holes for 15 Air Condensers, Optional: Spare Digestion tubes with condenser, Advanced Accessories: Microprocessor based PID Controller with Built in Timer. Temperature is controlled by Dual Display PID Controller exhibiting PV (Process Value) and SV(Set Value). Once the Set Value is achieved the In Built Auto Digital Timer Mode starts functioning & the equipment now operates for the process/time Set by the user or as required by the user & on completion of the process switches 'off' the heaters automatically & gives a Buzzer sound indicating that the process is complete.		
10	Energy Saver	1.5 Tons, Room size: 140 sq ft. to 225 sqft.	1	
11	Water Distillation Unit with Glass Container	Type: Pressure Steam Sterilization Equipment, Power: 4.5 KW, Output: 1500 ml/h, Power: 220 V, 50 Hz, Dimensions: 78*45*90cm (L*W*H), Weight: 15.8 KG (May Vary)	1	
12	Glass Soxhelt Extractor body; Condenser and 250 ml round bottom flasks	Volume: 250ml, Material: Borosilicate glass 3.3, Joint size: 24/29. 40/38	1	
13	Lovibond Comparator	More than 400 different test discs, Compensation for colored and turbid samples, Constancy of the colored glass, Standard Integrated Prism	1	
14	Micropipettes Single Channels	Variable Volume Single Channel (0. 2μl-10ml), Fixed Volume Single Channel (1μl-10ml), GLP Kits	2	
15	Quartz Cuvetts	Parameter: 200-500nm spectral range, H× w× D: 35mm×12.5mm×12.5mm, aperature Center H: 8.5 mm, Chamber Volume 140 μl, Path Length 2.5 × 5 mm	1	
16	Sound Level Meter	Technical Specification Measurement Range: 30 to 100 and 60 to 130 dB, Noise Floor: < 33dB (A), Time Weightings Fast, Slow, Impulse, Frequency Weightings: A and C, Battery Power: 3 x AA Alkaline for > 35 hours operations, External Power: 5V via USB Mini B socket, Dimensions: 72 × 212 × 31mm, 245g, Tripod mount: 1/4 socket, AC output 0.85V RMS @ FSD	1	



		"A" weighted,		
		DC output: 0 to 3.3V DC for FSD on selected range		
		(FOC option),		
		Operating conditions: RH: 5 to 90% (non		
		condensing) ,Temperature: 0 to 40°C, Atmos.		
		pressure 65 to 108kPa		
		Optical System		
		Single monochromator		
		Fully symmetrical double-beam		
		Light Source Halogen lamp, Deuterium lamp		
		Wavelength range 190 to 2700 nm (3200 nm, option)		
		Wavelength accuracy +/-0.3 nm (at 656.1 nm)		
		+/-1.5 nm (at 1312.2 nm)		
		Wavelength repeatability +/-0.05 nm (UV-Vis), +/-		
		0.2 nm (NIR)		
		Spectral bandwidth (SBW) UV-Visible: 0.1, 0.2, 0.5,		
		1, 2, 5, 10 nm		
		L2, L5, L10 nm (low stray light mode)		
		M1, M2 nm (micro cell mode)		
		W11, W12 mm (micro cen mode)		
		NIR: 0.4, 0.8, 1, 2, 4, 8, 20, 40		
		L8, L20, L40 nm (low stray light mode)		
		M4, M8 nm (micro cell mode)		
	UV Spectrophotometer UV Scanning	Stray light 1 % (198 nm KCL)		
		0.005 % (220 nm NaI)		
		0.005 % (340 nm NaNO2)		
17		0.005 % (370 nm NaNO2) SBW: L2 nm	1	
		0.04 % (1420 nm: H2O)		
		0.1 % (1690 nm: CH2Br2) SBW: L8 nm		
		Photometric range UV-Visible: -4~4 Abs		
		NIR: -3~3 Abs		
		Photometric accuracy +/-0.0015 Abs (0 to 0.5 Abs)		
		+/-0.0025 Abs (0.5 to 1 Abs)		
		+/-0.3 %T Tested with NIST SRM 930D		
		Photometric repeatability +/-0.0005 Abs (0 to 0.5		
		Abs)		
		+/-0.0005 Abs (0.5 to 1 Abs)		
		Tested with NIST SRM 930D		
		Scanning speed 10~4000 nm/min (8000 nm/min in		
		preview mode)		
		Slew speed UV-Vis: 12,000 nm/min		
		NIR: 48,000 nm/min		
		RMS noise 0.00003 Abs		
		(0 Abs, wavelength: 500 nm, measurement time: 60		
		sec, SBW :2 nm)		
		Baseline stability 0.0003 Abs/hour (Wavelength: 250		



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		nm, response: slow and SBW: 2 nm) Baseline flatness +/-0.0002 Abs (200 - 2500 nm) Detector PMT, Peltier cooled PbS Standard functions IQ Accessory, Start Button, Analog output Standard programs Abs/%T meter, Quantitative analysis, Spectrum measurement Time course measurement, Fixed wavelength measurement Validation, Daily check and Dual wavelength time course measurement Dimensions and weight 460(W) x 602(D) x 268(H) mm, 29 kg Power requirements 150 VA Installation requirements Room temperature: 15-30 Celsius, humidity: below 85%		
18	UV Glasses UVX	ESP lens: ESP, Extra Sensory Perception. An innovative coating to reduce dazzle and the harmful effects of blue light. The ESP coating filters: 57% of blue light, • transmits 64% of visible light, 99.99% of UVA/UVB As a reminder, Bolle clear lenses filter: 10% of blue light, 10% of visible light	6	
19	Vacutainer Labware	Color: Clear, Material: Plastic, Label Type: Paper, Needle type: Epidural needle. Closure type: Hemogard, Modified Tuohy point with design to provide enhanced tactile feel, Unique one-piece plastic style fitted to prevent tissue coloring and should lighter to enhance tactile feel during insertion, Calibrated needle depth markings assist in awareness of needle placement depth, Needle length: 127mm (5 in.), Needle gauge: 17 G, Self-life: 1825 days, Modified point: Fixed wings, Single-use, Thin wall, Sterile	1	
20	Water Distillation System with Reservoir	ADVANCED TECHNOLOGY: High distilling output, low electricity consumption. Standard -120 Volt. STAINLESS STEEL CONSTRUCTION: 18-8 Stainless Steel, strong, durable and attractive. HIGH CAPACITY: Makes 8 gallons per day. Holds 6 gallons in reserve. Manual Plus Automatic Water Distillation System: Produces 46 liters (approximately 12 gallons) every 24 hours, Features & Convenience:316 Alloy stainless steel evaporator, Incoloy (stainless steel) heating element: 1500 watt, Volatile gas vent system eliminates VOCs prior to condensation, Self-Sterilization Feature. With empty reserve tank, simply flip fan switch off for a couple	1	



		minutes when steaming. Easily converts from Autofill to Manual-fill by flipping a switch, Plugs into 230/240 volt outlet. Everything is included for a normal installation. (Installation kit, Pre-Filter, Postfilter and fittings.), Size and Weight: Height: 33 cm, Width: 51 cm, Depth: 33 cm		
21	Digital Colony Counter	Counter: 4 digits, 9 mm LED-Display. Maximum count 9999, Inputs: Clickable permanent marker/ Stainless contact pointer (optional), Outputs: USB Human Interface Device (HID) emulating standard PC keyboard output receivable by PC running keyboard compatible applications (Microsoft Windows ®), USB Virtual COM port (VCP) reserved for IUL, S.A. Technical Service purposes, Upper light power (12V DC, 500mA), Magnifying glasses: Biconvex, 100/120 mm, 4 Diopters, DIN x 2, Lightning: Bottom light, 4 selectable intensities, On/Off switching powered from the instrument. Upper light (depending of the glass magnifier ordered), On/Off switching powered from the instrument. Mains: 100/240 V, 50/60 Hz, Power: 50 W, Dimensions: 211x320x335 mm / 8.3x12.6x13.2,211x320x395 mm / 8.3x12.6x15.5, Weight: 3,2 Kg / 7,0 lb, 2,7 Kg / 5,95 lb	1	
22	Lux Meter	Light detector: Durable silicon photodiode with infrared filter, Display unit: Lux (lx) or "Foot Candle" (fc); switchable, Measuring range: 0 to 40,000 lx (0 to 3,716 fc), Resolution: 0.1 lx / 0.01 fc, Accuracy: ±5% ± 10 lx / fc (<10,000 lx / 1,000 fc), ± 10% ± 10 lx / fc (> 10,000 lx / 1,000 fc), Measurement rate: 2.5 times per second, nominal, Functions: maximum value display, measured value display in Lux or "Foot Candle", display illumination, automatic switch-off, Dimensions: 157 x 54 x 34 mm Weight: 138 g (including battery)	1	
23	Digital Microscope	Attached as Annex A	1	
24	Drying Oven	Attached as Annex B	1	
25	Freezer (-20 to - 80°C)	23.2 cu.ft. combination refrigerator and freezer	1	
26	Hot Air Oven (Forced Convection)	110V, 50/60 Hz, 1500W, 18" x 12" x 18", 2.5 cu. ft.	1	
27	Shaking Water Bath	Microyn Digital Thermostatic Water Bath with Selectable Openings, 3L Capacity, 120V/60 Hz	1	



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28	Test Tube Shaker	Standard Microplate Vortex Mixer, 120V, 300- 3500rpm	1	
29	Rotary Evaporator digital V 230V	RV 10 digital V 230V	1	
30	Orbital Shaker	Digital Speed Controller Orbital Shaker speed, Adjustable speed diversity, Diversit functiond, It can be used for virtually any mixing application	1	
31	Sterilizing Oven or autoclave	Temperature upto 356f, Cubic feet separated insulated inner and outer surface pliable. Final Seal silicon rubber gasket on oven. Heavy duty construction vertical down ward air flow system with adjustable velocity.	1	

Purchase Officer

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Annex-A.

Digital Microscope

Specifications

Zoom Camera Head

Effective pixels Approx. 2 megapixels

CCD: 1/1.8" color CCD, total pixels approx. 2.11 megapixels

Frame rate: 28fps (selectable 28fps (800x600) or 15fps (1600x1200)

when connected to Motorized Focusing Stand)

Optics Magnification: 3x to 60x (magnification on built-in 2.7" monitor), 20x to 400x (magnification on dedicated 17" monitor), optical zoom ratio = 20:1

Working distance 29mm

FOV Maximum diagonal field of view 20mm (16mm x 12mm)

Illumination Light source: white LED

Illumination method: Episcopic illumination from around the objective

lens

Illumination area: Ø20mm, 4-segment ring LED (top/bottom/left/right)

Recording Storage media: SD memory card, SDHC memory card (max. 16GB)

(selectable USB memory or FTP when connected to Motorized Focusing Stand)

Image file format: TIFF (non-compressed), JPEG (3 compression

levels)

Audio file format: WAV (voice memo)

Recording pixels: 2M (1600x1200), 0.5M (800x600)

Shooting mode Scene mode (standard, wafer/ IC chip, metal ceramic, circuit board, FPD, high-reflection sample*), BSS (Best Shot Select), timer (2 seconds fixed), interval, 4 custom settings, Focus assist capture function*

Exposure Photometry method: Average photometry/peak-hold photometry

Exposure control: Program AE/shutter preferred/manual exposure

Exposure compensation: -2EV to +2EV in 1/3EV steps,

camera gain and shutter speed can be set (manual exposure)

AE lock function

Aperture Resolution preferred mode/Depth-of-focus preferred mode

Image compensation Image quality adjustment:

Saturation/hue/contrast/sharpness/color effect

Shading correction: Factory setting (switchable On/Off can be

switched)

White balance Manual setting (adjustable red/blue gain can be adjusted)

LCD Monitor 2.7" TFT color LCD, turned off automatically when connected to

Motorized Focusing Stand

Image playback Full-frame view, thumbnail view (9 frames), zoom view (scrollable)

Image deletion Quick delete, select image delete, folder delete, card format

Video output NTSC/PAL

Connector Video output, capture input (ø3.5mm stereo mini jack), dedicated

connector for stand, external remote controller input

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Language Japanese/English

Power supply Li-ion Rechargeable Battery/AC adapter/Motorized Focusing Stand

(when connected to Motorized Focusing Stand)

Battery: P-Li01 P-Li-ion Rechargeable Battery AC adapter: AC adapter EA1050E-120 (optional) Auto power save: 30sec./1min./5min./10min./20min.

Power consumption 24VA

Battery operating time Approx. 90 minutes (battery life at maximum power

consumption by maximum LED brightness)

Charging time Approx. 4 hours (when no charge remains)

Tripod socket hole 1/4-inch (ISO 1222)

Dimensions Approx. 96(W)x142(H)x228(D)mm

Weight Approx. 1kg (excluding battery and SD card)

Usage environment Temperature: 0 to +40°C

Humidity: 60% RH max. (no condensation)

*Zoom camera head, can also be used by downloading the firmware

• Motorized Focusing Stand plus Touch Panel Monitor

Motorized Focusing Stand

Stroke Z axis stroke: 150mm (upward 148mm, downward 2mm),

upper and lower limit can be adjusted

Stage 3x2 Stage/Sliding Stage/Tilting Stage

Image Edit EDF: Still image display, 3D image display (with Shuttle Pix

Editor)

Halation prevention: Live display (max. 5fps, 1280x960, 800x600) High dynamic range: Still image display (1280x960/800x600) Calibration: Zoom magnification conversion/user-registerd

calibration

Measurement function: Distance between two points, Length of perpendicular line, Distance between centers of two circles, Angle, Diameter and circumference of circle, Area of polygon, Pitch length

Annotation: Counting with numbered

marker, Textcomment, Pendrawing, Straight lines and arrows, Scale display, Cross hairs with circle display, Grid line display, Cross scales display, XY Measurement

Direct Printing Supported printer: PictBridge printer

Connector Camera head IF: for connection to P-400Rv

Video output: DVI-I

LAN: 10Base-T/100Base-TX

USB host: USB2.0 A connector x2 (for connection to USB mouse/

USB memory/ dedicated monitor)

USB device: USB2.0 B connector x1 (for connection to PC)

Language Japanese/English

Power supply Built-in, AC100-240V 50/60Hz

Auto power save: OFF/1 to 99min.

Power consumption 140VA

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Dimensions Approx. 280(W)x450(H)x404(D)mm

Weight Approx. 9kg

Usage environment Temperature: 0 to +40°C

Humidity: 60% RH max. (no condensation)

Touch Panel Monitor (P-TPM)

Display size 17.0" (display area 333.9mm x 270.3mm)

Resolution SXGA (1280x1024)

Connector Image input: Digital input: DVI-D SXGA, video input: NTSC

composite

USB host: USB2.0 A connector x3 USB device: USB2.0 B connector x1

Power supply AC100-240V 50/60Hz

Power consumption 140VA

Dimensions Approx. 390(W)x180(D)x371(H)mm

Weight Approx. 7kg

Usage environment Temperature: 0 to +40°C

Humidity: 60% RH max. (no condensation)

Features of Motorized stand

Simple Stand

Simple reflection stand

Dimensions Approx. 180(W)x265(D)x325.5(H)mm

Stroke Z axis stroke: 100mm (upward 98mm, downward 2mm)

Size of stage glass φ90mm

Weight Approx. 2.5kg

Diascopic LED stand (P-LEDS)

Dimensions Approx. 200(W)x325(D)x350.5(H)mm

Stroke Z axis stroke: 100mm (upward 98mm, downward 2mm)

Size of stage glass φ90mm

Weight Approx. 4.5kg

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Annex-B.

Drying Oven

Set temperature range in °C min.10 above ambient up to +300 **Temperature** 1 Pt100 sensor DIN class A in 4-wire-circuit

Interior easy-to-clean interior, made of stainless steel, reinforced by deep drawn

ribbing with integrated and

protected large-area heating on four sides

Volume 53 1

Dimensions $w_{(A)} \times h_{(B)} \times d_{(C)}$: 400 x 400 x 330 mm

Max. number of internals 4 Max. loading of chamber 80 kg Max. loading per internal 20 kg

Fan forced air circulation by quiet air turbine,

adjustable in 10 % steps

Fresh air admixture adjustment of pre-heated fresh air admixture

by air flap control in 10 % steps

Vent vent connection with restrictor flap **Dimensions** $w_{(D)} \times h_{(E)} \times d_{(F)}$: 585 x 784 x 514 mm

Housing rear zinc-plated steel

Electrical data

Voltage Electrical load	230 V, 50/60 Hz approx. 2000 W
Voltage Electrical load	115 V, 50/60 Hz approx. 1700 W
Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Internals	1 stainless steel grid(s), electropolished
Works calibration certificate	Calibration at +160°C