



Tender Ref. No. CARS/ST/P-366/OTM/2024

Date: 09-05-2024

Invitation for Tender (National)

Sealed Tenders are hereby invited from reputed Supply, Installation, Testing and Commissioning of Equipment, 3D Printer and Oscilloscope for different laboratory at CARS, University of Dhaka.

1.	Ministry/Division	Ministry of Education		
2.	Agency	University of Dhaka		
3.	Procuring Entity Name	Centre for Advanced Research in Sciences (CARS), University of Dhaka.		
4.	Procuring Entity Code	P-366		
5.	Procuring Entity District	Dhaka		
6.	Invitation for	Supply, Installation, Testing and Commissioning of Equipment, 3D Printer and Oscilloscope for different laboratory.		
7.	Invitation Tender Ref No.	CARS/ST/P-366/OTM/2024		
8.	Date :	09-05-2024		
KEY INFORMATION				
9.	Procurement Method	Open Tendering Method		
FUNDING INFORMATION				
10.	Budget and Source of Funds	CARS Own Income (Bank Account)		
11.	Development Partner (if applicable)	N/A		
PARTICULAR INFORMATION				
12.	Project/Programme Code (if applicable)	Not used		
13.	Project/Programme Name (if applicable)	Not Applicable		
14.	Tender Package No.	Lot Wise		
15.	Tender Package Name	Supply, Installation, Testing and Commissioning of Equipment, 3D Printer and Oscilloscope for different laboratory.		
16.	Tender Publication Date	09-05-2024		
17.	Tender Last Selling Date	03-06-2024 Up to office hours		
18.	Tender Closing Date and Time	Date :	Time:	
		04-06-2024	10:30 am	
19.	Tender Opening Date and Time	04-06-2024	11:00 am	
20.	Name & Address of the Office(s)	Address(s)		
	-Selling Tender Document (Principal)	(i) Centre for Advanced Research in Sciences (CARS), University of Dhaka.		
	-Receiving Tender Document	(i) Centre for Advanced Research in Sciences (CARS), University of Dhaka.		
	-Opening Tender Document	Centre for Advanced Research in Sciences (CARS), University of Dhaka.		
21.	Place/Date/Time of Pre-Tender Meeting	Name/Address	Date:	Time
INFORMATION FOR TENDERER				
22.	Eligibility of Tenderer	(i) Up to date Trade License (ii) Up to date VAT Registration Certificate (iii) Up to date Income Tax Clearance Certificate (iv) Experience Certificate in similar works of comparable value in a single tender in last five years as mentioned in TDS (v) Bank solvency Certificate (vi) Manufacturer Authorization letter for applicable Equipment.		



Office of the Director

		<p>(vii) Applicant must be owner of the firm or Representative of the firm will be authorized by the owner of the Firm signature with name and seal of the owner.</p> <p>viii) Country of origin and made in country will be same. If differ then explain clearly with black and white.</p> <p>(ix) catalogue of the Equipment.</p> <p>(x) Warranty: As per TDS, Installation and training must be provided by the supplier (free of cost).</p>			
23.	Brief Description of Goods	Supply, Installation, Testing and Commissioning of Equipment, 3D Printer and Oscilloscope for different laboratory.			
24.	Brief Description of Related Services	Supply, Installation, Testing and Commissioning of Equipment, 3D Printer and Oscilloscope for different laboratory.			
25.	Tender Document Price TK. 4,000.00	The Price of Tender Schedule as mentioned is to be deposited in University of Dhaka, A/C No. 36000392, Janata Bank, T.S.C branch, Dhaka University. Tender schedule and terms and conditions may be collected on submission of the deposit receipt from the above mentioned offices on all working days except on the date fixed for submitting the tender.			
26.	Identification/Name of Goods	Location	Tender Security Amount in Taka	Completion Time	
	Equipment, 3D Printer and Oscilloscope	CARS, DU.	Lot-01: Equipment	95,000/=	120 days from the date of Opening
			Lot-02: 3D Printer and Oscilloscope	29,000/=	
PROCURING ENTITY DETAILS					
27.	Name of Official Inviting Tender	Professor Dr. Ishtiaque M. Syed			
28.	Designation of Official Inviting Tender	Director			
29.	Address of Official Inviting Tender	Centre for Advanced Research in Sciences (CARS), University of Dhaka.			
30.	Contact details of Official Inviting Tender	9661900/Ext. 4616/ 4636			
31.	The procuring entity reserves the right to accept or reject any or all tenders without assigning any reason whatsoever. The procuring authority also reserves the right to omit, increase or decrease the quantities of Equipment, 3D Printer and Oscilloscope from the Tender. The suppliers must abide by the decision of the University authority. Tender form, schedule of requirements of supply, tender notice and terms and conditions etc. will form the integral part of the tender. The suppliers should write the name of the item and the name of the firm on the envelope clearly. Vat, Income Tax and other Taxes, if any, imposed by the Govt. will be deducted from their bills as per Govt. rules.				

SD/-

.....

Director

Centre for Advanced Research in Sciences (CARS)
University of Dhaka



Office of the Director

Section 6. Schedule of Requirements

This Section provides the List of Goods and Delivery Schedule and List of Related Services and Completion Schedule and must be carefully prepared by a Procuring Entity for each object of procurement.

Invitation for Tender No :

Date

:

Tender Package No :

A. List of Goods & Related services and Delivery Schedule

Lot-1: Equipment

1 Item No.	2 Description of Item	3 Unit of Measurement	4 Quantity	5 Point of Delivery	6 Delivery Period Required
1	Autoclave Machine	No's	1	STORE, CARS	90 days
2	High Speed Mini Centrifuge	No's	1	"	"
3	-25°C Biomedical Freezer	No's	1	"	"
4	Shaking Incubator	No's	1	"	"
5	Gel Documentation System	No's	1	"	"
6	Ultra Freezer (-86°C)	No's	1	"	"
7	High Speed Refrigerated Centrifuge	No's	1	"	"

Lot-2: 3D Printer and Oscilloscope

1 Item No.	2 Description of Item	3 Unit of Measurement	4 Quantity	5 Point of Delivery	6 Delivery Period Required
1	Professional grade 3D Printer	No's	1	STORE, CARS	90 days
2	Oscilloscope	No's	1	"	"

Country of Origin: USA/UK/EU/Japan/Australia/Canada/Singapore/Equivalent.

Section 7. Technical Specifications.

The Goods and Related Services shall comply with following Technical Specifications:

Lot-1: Equipment

Item No	Name of Item or Related Service	Technical Specification and Standards
»	CARS	Supplier
1	<p>Autoclave Machine Characteristics:</p> <ol style="list-style-type: none"> 1. Fully stainless steel structure. 2. Hand wheel type of quick-open door structure. 3. Door safety lock system. 4. Digital display of working status,touch of key. 5. Auto discharge the cool air, and steam discharging automaticallyafter sterilization. 6. Over temperature & over pressure auto-protection. 7. Safe protection of water lacking 8. Self-inflating type seal. 9. Automatically shut off with beep reminding after sterilization 10. With two stainless steel sterilizing baskets <p>Specification: Valid volume: minimum 35L(Ø318*450mm); working pressure: ~ 0.22MPa; Working temperature: 134°C; Max working pressure: 0.23 Mpa ;Heat average: <±1°C; Timer: 0~99 Min or 0~99 Hours 59 Min ; Adjustment of temp: 105~134°C; Power: 2.5Kw/AC220V, 50HzOverall Dimension: around 450*450*1010</p> <p>Warranty: One year from the date of installation.</p>	
2	<p>High Speed Mini Centrifuge Technical Specifications:</p> <p>Max. Speed: 15000rpm (500~15000rpm), increment:100rpm Max. RCF: 15100×g, increment:100×g Speed Accuracy: ±20 rpm Rotor Capacity: 0.2mL/0.5mL/1.5mL/ 2mL×12 Run Time: 30sec~99min / Continuous Driving Motor: Brushless DC motor Safety Devices: Door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis, Power: Single-phase, AC110V~240V, 50Hz/60Hz, ~ 3A,~ 100W, Noise level: ≤54dB Acceleration /Braking time: 11s↑/9s↓ Dimension [D×W×H]: around 255×245×140mm Certification: EMC, CE, FCC, ICES, cTUVus, CB Advanced features: Speed/RCF switch, Short-time run function, sound-alert function</p> <p>Warranty: One year from the date of installation.</p>	

<p>3</p>	<p>-25°C Biomedical Freezer Special Feature: Reliable Performance High density foam insulation for rigidity and stable storage temperature LED digital display for clear observation Two Alarm Functions High/low temperature, Sensor error Adjustable Temperature Adjustable freezer compartment range: -10 ~ -25 °C Lockable Design, Door with lock, safeguard the storage Intelligent Alarm, Human Technology, Safe Service Two types of alarm indications audible buzzing and visible flashing light Technical Specification: Type: -25°C Biomedical Freezer Capacity: minimum 300 L Cabinet Type: Upright Climate Class: N Cooling Type: Direct Cooling Defrost Mode: Manual Refrigerant: CFC-Free Noise Level (dB): maximum 44 Performance Cooling performance °C : -25 Temperature Range °C : -10~-25 Control Controller: Microprocessor Display: LED Electrical Data Power Supply(V/Hz): 220-240/50 Power(W): ~ 90 Electrical Current(A): ~ 0.7 Interior Dimensions(W*D*H): around 480*465*1430(mm) Exterior Dimensions(W*D*H): around 657*685*1665(mm) High/Low Temperature: Y Sensor Error: Y Certificate: CE, UL Warranty: One year from the date of installation.</p>	
<p>4</p>	<p>Shaking Incubator Technical Specifications Shaking Mode: Cyclotron Oscillation Function Amplitude: around Ø20mm Temp. Resolution: ~ 0.1°C Temp. Motion: ± 0.1°C Temp. Uniformity: ± 1°C Temp. Range: +4 ~ 65°C Rotary Speed: 30 ~ 300rpm Rotary Speed Precision: ± 1rpm Structure Chamber Material: Mirror Stainless Steel</p>	

Office of the Director

	<p>Outer Shell: ABS Observation Window Material: Imported resin Thermal Insulation Material: Polyurethane Cooling System: Yes Coolant: R134a Heater: Stainless steel heating tube Drive Mode: Three-axis level Oscillating Plate: Spring Wire Rack Air Circulation Mode: Horizontal convection Power Rating: ~ 0.8 kW</p> <p>Controller Temp. Control Mode: LCD PID intelligent control Cyclotron Control Mode: Automatic changes of rotation direction Setting Mode: Touch button setting Temp. Display Mode: Touch button setting Speed Display Mode: LCD display Timer: 0 ~ 9999min Operation Function : Fixed value operation, timing function, bidirectional automatic switchover, auto stop, quick stop start, Temperature Sensor: Pt100 Speed Sensor: Hoare Gating System: Yes Additional Function: Deviation correction, menu keys locked, power-off memory Safety Device: over temperature alarm, menu locked, gating system, power-off protection, plugging turn protection</p> <p>Specification: Inner Chamber Size (W*L*H)(mm): around 560*390*320 Exterior Size (W*L*H)(mm): around 600*770*500 Shelf Size (mm): minimum 480*315 Max capacity of Shelf for single specification(ml/pc): 100ml*28/250*15/500*8/1000*6 Number of flask clamp as standard (ml/pc): ~ 250*12 Inside Volume: minimum 70L Shelf Load Bearing: ≤ 15kg/layer Shelf Layer: 1, Power Supply (50/60Hz) Current Rating: AC220V/2.5A</p> <p>Warranty: One year from the date of installation.</p>	
5	<p>Gel Documentation System Package included:</p> <ul style="list-style-type: none"> • CN-4X darkroom -steel & aluminum body • EPI white LED panels • 'One click to the image'' concept • Auto lighting -Auto exposure -Auto focus • CX4 camera & Bio-Vision software • Motorized zoom lens-F590 emission filter • 1 filter position • Fixed Pad (no roll-out option) • Compatible desktop computer <p>> Super-Bright 312nm-Filter size 21x26cm FC-26.WL UV/WL conversion screen</p> <p>Specification: CAMERA & OPTICS</p>	

Office of the Director

	<ul style="list-style-type: none"> • CX4 camera: • Scientific grade camera - Made in Germany/EU/USA/Japan • 2 megapixels resolution extendable to 7.6 megapixels • Passive cooling • 16-bit – 65 536 grey levels • USB-3 connection • Motorized zoom lens with feedback • Field of view: minimum 20x20cm <p>HARDWARE Smart Darkroom technology: Software control of the lighting White light led panels with automatic intensity adjustment UV cut-off filter Fix position transilluminator with optional protection screen Steel and stainless-steel darkroom for long lasting robustness. Wide access door with UV safety shutoff</p> <p>APPLICATIONS DNA, RNA, protein gels. Fluorescence and colorimetric stain imaging:</p> <ul style="list-style-type: none"> • Ethidium bromide, Sybr-Safe, Sybr-Green, Gel-Red, Gel-Green, Sybr-Gold, GFP, Pro-Q Emerald, Sypro ruby, FITC, DAPI • Colorimetric stained protein gels, X-Ray film, autorads, SSCP gels, colony dish and flask imaging and other EPI white light applications • Coomassie blue, Silver stain, Ponceau S Red, Copper stain... • Sky-Pad or Blue light conversion screen for DNA/RNA detection (avoid «nicking» DNA): • Sybr Safe, Sybr Green, eGFP • Warranty: One year from the date of installation. 	
6	<p>Ultra Freezer (-86°C) Features :</p> <p>Most Energy Efficient: World leading power consumption, only 10.5Kwh/day</p> <ul style="list-style-type: none"> • Low Noise: Innovative refrigeration cabin design reduces operational noise • Reliable Performance: Cabinet temperature can reach -86°C with temp uniformity within 5°C • Market Leading Energy Efficiency: High efficiency cooling fans and compressors combined with hydrocarbon refrigerants ensure energy savings and long term sample security • Multi Layered Sealing Structure: Triple of layer of gaskets split between main and inner doors decreases heat loss and guarantee's excellent warm up times in the event of a power failure • Pressure Equalization Port: Heated port with spring 	

Office of the Director

	<p>assisted mechanism to prevent icing on the vent allows users to reopen the main door soon after entering</p> <ul style="list-style-type: none">• Improved Handle Design: Lockable handle with unique key prevents other Haier freezer owners access to your precious samples, also comes with space for a padlock for that extra security• USB Interface: Enables users to download historical temperature data for compliance/auditing purposes• Multi Level Alarms: Alarming functions that include hi and low temperature, sensor error, power failure, high ambient, clean filter and door ajar <p>Technical Data</p> <ul style="list-style-type: none">• Type: -86°C ULT Freezer• Cabinet Type: Upright• Climate Class: N• Cooling Type: Direct cooling• Defrost Mode: Manual• Refrigerant: HC• Noise Level (dB): 50• Cooling performance(°C): -86• Temperature Range(°C): -40~-86• Controller: Microprocessor• Display: LED• Power Supply(V/Hz): 220-240/50• Power(W): 900• Electrical Current(A): 7.5• Capacity(L/Cu.Ft): 338/11.9• Net/Gross Weight(approx): 238/278(kg) 524.7/612.9(lbs)• Interior Dimensions(W*D*H): 465*630*1165(mm) 18.3*24.8*45.9(mm)• Exterior Dimensions(W*D*H): 812*893*1846(mm) 32.0*35.2*72.7(mm)• Packing Dimensions(W*D*H): 875*970*2010(mm) 34.4*38.2*79.1 (mm)• Container load (20'/40'/40'H): 12/24/24 <p>Functions</p> <ul style="list-style-type: none">• High/Low Temperature• Remote Alarm• Hot Condenser• Power Failure• Sensor Error• Low Battery• High Ambient Temp• Door Ajar <p>Accessories</p> <ul style="list-style-type: none">• Caster, Foot, Test Hole• Shelves/Inner Doors: 3/2	
--	---	--

	<ul style="list-style-type: none"> • Temperature Recorder: Optional • USB Interface, Rs232/485 Interface: Optional • CO2 Backup System: Optional • LN2 Backup System: Optional <p>Certificate: CE, UL Warranty: One year from the date of installation.</p>	
7	<p>High Speed Refrigerated Centrifuge High speed refrigerated centrifuge is typically used in scientific research and medical laboratories to separate substances of different densities in a sample. The refrigeration feature allows for temperature control during the separation process, which is important for maintaining the integrity of certain samples.</p> <p>Features:</p> <ul style="list-style-type: none"> ✓ Metal housing, metal lid, and stainless steel centrifuge chamber are autoclave-able and resistant to detergents and disinfection liquids. ✓ Observations window on lid for speed calibration and noise measurement. ✓ Microprocessor control with frequency conversion A.C. motor drive ✓ LCD Display the parameters of Speed, Timer, RCF, Rotors, Program (Memory), Acceleration & Deceleration information and Error code information. ✓ Double layers sealing ring made for the centrifuge lid and the instrument to keep long good sealing. <p>User friendly:</p> <ul style="list-style-type: none"> ✓ CFC free refrigeration system, Pre-cooling feature, Precise temperature control up to — 20°C. ✓ Programmable and storable, stores up to 30 programs and provides direct user access with one keystroke save. The stored parameter: combination remains in the memory even after the centrifugation has been switched off. ✓ Provides the 10 acceleration rates and 10 braking ramp, to effectively avoid secondary sedimentation, with better centrifugation effect. ✓ Automatic lid-locking and holding during rotor run ✓ Easily exchangeable rotors, special rotor connector which makes it easy to load and unload rotor. <p>Automatic troubleshooting with indication of error code and alarm on the screen.</p> <ul style="list-style-type: none"> ✓ "Mute" patent technology. Noise level lower than 58 decibel at the highest rotational speed. ✓ Automatic rpm/rcf conversion ✓ Automatic rotor identification system, coded rotor identification prevents the rotor from over speeding. <p>Safety:</p> <ul style="list-style-type: none"> ✓ Produced according to international safety regulations (e.g. IEC 61010) ✓ Safety Electrical lid interlock, door cannot open when 	



Office of the Director

	<p>rotor is running and machine won't run when lid open and error code appears.</p> <ul style="list-style-type: none"> ✓ Emergency lid-lock release when power failure(very useful in an unexpected power interruption). ✓ Gas hinge for lid drop protection. ✓ Safety protections are made for the over speed, over heating (motor, chamber), imbalance etc to ensure the man machine safety. <p>General Specification:</p> <p>Max. Speed : Minimum 21000rpm Max.RCF : 31554xg Max. Capacity : 4*750ml Temp. Control range : -20°C — +40°C Matched Rotors : Fixed angle rotors & swing out rotors Display: LCD Certification : CE, ISO13485, ISO9001, SFDA</p> <p>Technical Specification:</p> <p>Power Supply : AC220V, 50HZ, 10A,1000W Time Range : 1-99 minutes 59s adjustable Speed accuracy : ±10r/min Acc/Dec : 1-10 rates Temp. Control accuracy: ±1 °C Net weight : 110KGS Dimension (mm) : around 690x600x440mm (L x W x H)</p> <p>Accessories Including (Rotor):</p> <ol style="list-style-type: none"> 1. Angle Rotor- 1Pcs, 8x50ml Angle Rotor Adppter-1Pcs, 8x15ml 2. Swing Bucket- 1Pcs, 4x250ml Swing Bucket Adppter-1Pcs, 4x5x15/10ml Swing Bucket Adppter-1Pcs 4x50ml <p>Warranty: Two years from the date of installation.</p>	
--	---	--

Lot-2: 3D Printer and Oscilloscope

Item No	Name of Item or Related Service	Technical Specification and Standards
»	CARS	Supplier
1	<p>Professional grade 3D Printer Build Volume: around 256*256*256 mm³ Maximum Chamber Control Temperature: 60 °C Tool Head Heating: Hot End: All-Metal Max Hot End Temperature: 320 °C Nozzle Diameter (Included): 0.4 mm Laser (CLASS 1), Wavelength: 850 nm, 850 nm Maximum Output of Laser Radiation: < 0.778 mW with sensors, heat-bed and software; wifi, Ethernet connections</p> <p>Warranty: One year from the date of installation.</p>	



Office of the Director

2	<p>Oscilloscope 70 MHz 2 analogs plus 8 digital channels Easily view signals on a minimum 8.5-inch WVGA display Capture more data with up to 1 Mpts memory 200,000 wfms/s update rate capabilities with full upgradability: Add 20 MHz function generator, 3-digit voltmeter, serial trigger and analysis, segmented memory & mask testing at any time Easily set up teaching labs with our free Educator's Resource Kit What's included: Standard 5-year warranty Standard secure erase One 150 MHz 10:1 passive probe per channel 8-channel logic probe and accessory kit Built-in help language support for English, Japanese, simplified Chinese, traditional Chinese, Korean, German, French, Spanish, Russian, Portuguese and Italian Certificate of Calibration Documentation CD Interface language support GUI menus: English, Japanese, simplified Chinese, traditional Chinese, Korean, German, French, Spanish, Russian, Portuguese, Thai, Polish and Italian Localized power cord Basic app for free to control your instruments Warranty: One year from the date of installation.</p>	
---	--	--

Country of Origin: USA/UK/EU/Japan/Australia/Canada/Singapore/Equivalent.