

DEPARTMENT OF PHYSICS, THE UNIVERSITY OF BURDWAN

No. PHYS/2018-19/PUR/02 dated 27.12.18

Sealed quotations are hereby invited from the manufacturer/authorized distributors/suppliers for supplying or/and repair of the following items to be procured for the Department of Physics, The University of Burdwan, Golapbag, Burdwan-713104 in 2018-19.

[A] Vendors are requested to inspect the following instruments for maintenance and necessary repairing.

SI No	Items and Contact	Qty
01	Repair and maintenance by original equipment manufacturer (OEM) or by authorized dealer of OEM for Dye laser [One of the two Dye circulators of our Dye laser (Sirah, Germany; Model CSTR-D-532 single cell Cobra stretch with double-grating resonator and CSTR-Amp)	01
02	Repair and maintenance by original equipment manufacturer (OEM) or by authorized dealer of OEM for the remote control of a Nd:YAG laser (Spectra Physics, USA; Model: DCR-11)	01
03	Neon Discharge Tube with power supply for Zeeman Effect experiment.	02

[B] Vendors are requested to inspect the following computers and Peripherals for maintenance and necessary repairing.

SI No	Items and contact	Qty
01	UPS Batteries (Sealed maintenance free and from standard manufacturers(like Exide/ Amaron/ Amara Raja etc.) for existing 5KVA UPS: (i) 12V, 26 AH & (ii) 12V, 23 AH Separate quotation for both items (i) and (ii) are to be submitted. Must Include buy-back price for 16 Nos 12V, 65 AH battery separately	16
02	Computer Harddisk for existing laptop (Lenovo). Quote both for 1000 GB and 400 GB hard disks.	01
03	Comprehensive Maintenance Contract (CMC) of 5 KVA and 10 KVA UPS used for departmental Internet, Computer and Research facilities. The service provider should have local service station to provide service immediately on notification.	1+1

[C] Vendors are requested to quote the following computer software and peripherals.

SI No	Items	Qty
01	Printer Cartidge for Konica Minolta PagePro 1590MF Laser Printer	01

[D] Vendors are requested to quote the following items.

SI No	Items	Qty
01	60MHz 2 channel, Delayed Sweep, Dual trace Analog Oscilloscope Sensitivity:5mV/div - 5V/div (x1 mode), 1mV/div - 1V/div (x5 mode). Attenuator1-2-5 sequence, 10 step attenuator plus vernier control. Rise Time: 5.8ns (S-1360), 3.5ns (S-1390). Over Shoot: Less than 5%. Input Impedance: 1MΩ ±2%, 25pF ±10%. Max Input Voltage:400V (DC + AC peak). Operating Modes:CH1, CH2, DUAL(ALT or CHOP) and ADD. Chop Frequency: Approximately 500kHz. Algebraic Addition :CH 1 + CH 2, CH 1 - CH 2. Inverter: CH 2 only. Polarity Reversal: CH 2 only Bandwidth: DC - 1MHz(-3dB). X-Y Phase Difference: Approximately 3° at 50kHz Sweep Display Mode: Main, Mix, Delay, Hold Off Time: 5:1	02

	continuously variable (0.1µs/d) Sweep Speed: 0.1µs/div - 2s/div in 1-2-5 sequence, 23 steps 20ns/div - 0.5s/div in 1-2-5 sequence, 23 steps Accuracy: ±3%, Variable Time Control: 5:1, uncalibrated, continuously variable between steps. Sweep Magnification: 10X, ±10%, extend sweep speed up to 10ns/div, Z Modulation: Positive TTL signal, low level blank intensity at any intensity, high level un blank any intensity.	
02	3 MHz DDS Function Generator Specifications: Output Function - Sine, Square, Triangle, TTL, Frequency Range(For Sine, Square)- 0.1Hz ~ 3MHz, Frequency Range(For Triangle)- 0.1Hz ~ 1MHz, Resolution - 0.1Hz maximum, Stability - 20ppm, Accuracy - 20ppm, Aging - 5ppm/year, Amplitude Range - 10Vp-p (into 50 Ω load), Amplitude Accuracy - 20% at maximum position, Impedance - 50 Ohm \pm 10%, Attenuator - -40dB \pm 1dB×1, DC Offset - <-5V - >5V (into 50 Ω load), Duty Control Range - 25%-75% below 1 MHz, Display - 6-digit led display, Output Control - ON/OFF selector, Power Source - AC 240V, 220V, 110V 10%, 50/60Hz. Accessories - Standard accessories.	03
03	GM tube [specifications: End window GM detector, suitable for beta and gamma counting; Operating voltage range 450-600 V; Gas filled He + HaI; Detector should have a very wide plateau length with plateau slope better than 6% per 100V. Detector to be supplied in a cylindrical PVC enclosure (25 D X 77 H mm) with MHV socket arrangement for applying HV bias voltage. Tube dimensions: maximum overall length 2.125 inches.	01
04	Stand for GM detector [specifications - designed to hold PVC enclosed End Window G.M. tube. Stand should be housed inside the lead shielding if required. It should have both sample and absorber trays. Sample tray should hold planchets or disc type radioactive standard source (Beta or Gamma). Aluminium absorber discs can be interposed between the source and the detector. Captive screw holds the detector PVC tube to any height. To increase the distance between end window & source one could lift the PVC tube further up which can be held by captive screw.]	01
05	Nuclear Counter [specification: microcontroller based nuclear detector; coaxial cable with UHF connector connects GM tube; should store 1000 readings in non-volatile memory; Dimensions 200 Lx220 Dx70 H mm]	01
06	Partially silvered mirror [Diameter approx. 2 cm; used for Fabry Perot Interferometer]	04
07	Table Top Hot Air Oven with following specifications: Temperature range :- 50°C - 330°C with 1 degree incremental regulation Digital display for viewing and controlling temperature. Convection Type:- Gravity Convection Timer Function:- Hourly and real time Programmable Ramps Inner size : 12*12*14 inches	01
08	Fabry Perot Interferometer	01

[E] Vendors are requested to quote a Dehumidifier with given specification:

SI No	Items	Qty
08	DEHUMIDIFIER with following technical specifications: 1. Type of Dehumidifier: Desiccant type table top. 2. Supply of dehumidified air: 300 CMH. 3. Humidistat with Digital Display.	01

	<p>4. The dehumidifier shall be CNC fabricated unit with powder coated finish.</p> <p>5. The dehumidifier shall be with Eco-Dry rotor and totally self-contained.</p> <p>6. The desiccant rotor shall be manufactured in-house.</p> <p>7. The desiccant rotor shall be of fluted honeycomb type with stainless steel perimeter flange to incorporate robust internal structure required for industrial quality, durability and easy serviceability and also to extend media and seal life.</p> <p>8. The desiccant rotor shall be non-flammable and its media shall have high Performance metal silicates synthesized in situ.</p> <p>9. The dehumidifier shall have differential air pressure switch to control reactivation air flow.</p> <p>10. Dehumidifier shall have high temperature thermostat cutout to economize the power consumption.</p> <p>11. Dehumidifier shall have additional cooling thermostat as a safety measure.</p> <p>12. Dehumidifier shall have electrical interlocking of fan motor, heaters and rotor drive as a safety measure.</p> <p>13. The dehumidifier shall have PTFE bonded silicon bulb seal designed to minimize air leakage.</p> <p>14. The Dehumidifier manufacturer shall have minimum 30 years manufacturing experience with ISO 9001 and ISO 14001 certifications.</p> <p>15. The supplier must have service center in Eastern India with adequate number of Factory trained service engineers to provide prompt service support.</p> <p>16. Dimension of Dehumidifier– 740 mm X 540 mm X 445 mm (H)</p> <p>17. Electrical Requirement – 230V / 1PH / 50HZ</p> <p>18. The Dehumidifier manufacturer shall have the facility to show the design performance at controlled lab / test facility. The facility should have the ability to show rotor performance at the design conditions and also at a few design points representative of the expected conditions to be seen at site during the year / changing ambient conditions. Various aspect at the lab such as configuration, regeneration air flow and temperature, process inlet and out let conditions should be covered at the lab level for witness test</p> <p>19. Dehumidifier shall be CE certified.</p>	
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[F] Vendors are requested to quote the following Public Address Systems and peripherals.

SI No	Items	Qty
01	Portable sound system for class room	01

[G] Vendors are requested to quote the following Computer Stationaries, Consumables and Antivirus:

SI No	Items	Qty
01	Antivirus software shall have a 3 – in – 1 protection of Antivirus, Anti spy ware and Firewall. This will continuously protect the PC from viruses, spy wares, and hackers. Antivirus software is protection for PC. Antivirus software shall be upgraded regularly.	01 (20 user system)

[H] Vendors are requested to quote the following Computer Software:

SI No	Items	Qty
01	MatLab - Educational License Simulink - Educational License MatLab Compiler - Educational License.	1+1+1

[I] Vendors are requested to quote the following LCD Projector:

SI No	Items	Qty
01	Standard LCD Projector for class room and/or conference presentation.	01

[J] Vendors are requested to quote the following Items:

SI No	Items	Qty
01	Pelco® high performance silver paste (CAS/Product number 16047 of Ted Pella, Inc.)	50 gms
02	Carbon Coated 300 and 400 mesh Copper Grids (CAS/Product number 3530C-CF of SPI Supplies)	4 × Pack of 25
03	Potassium bromide [for IR spectroscopy Uvasol® (EMD Millipore)] (CAS/Product number 7758-02-3 of Sigma Aldrich)	250 g

It must be noted that all the works mentioned above may not be done or the purchase of new items may not be fulfilled if necessary fund is not available. Quantity (Qty) numbers mentioned are only approximate and may increase or decrease subject to the availability of grants. Vendors are requested to inspect to understand the details of requirement/repair/maintenance etc before sending quotation for all the enlisted items.

TERMS and CONDITIONS:

- Complete technical specification for each of the items must be enclosed. The quotations must be strictly according to the specifications mentioned above.
- All taxes and other charges (if any) must be mentioned clearly.
- Payment will be made only after successful installation of the items.
- A vendor may submit quotation for a single item or for more than one item. GST documents, IT clearance Certificates, Credentials for last two years need to be submitted along with quotation as and where applicable.
- The quotations must be submitted to:
Head of the Department
Department of Physics
The University of Burdwan, Golapbag, Burdwan-713104
- The last date and time of submission of the quotation is 10.01.19, 05:00 p.m.**
- The University of Burdwan reserves the right to cancel a part of or the whole tender without showing any reason.

Udit Chatterjee
Head of the Department