## MIDNAPORE COLLEGE (AUTONOMOUS) MIDNAPORE <u>TENDER NOTICE</u>

## Ref. No:- 07 /MC/TENDER/25

Rate quotations (including all taxes) in sealed envelope are invited from authorized Suppliers/Concerns Agencies only who have Trade License, Pan Card & GST registration and requisite credentials **within 15.01.2025 at 2.00 pm** under DBT-Star College Scheme of the College for following articles.

Date: - 07.01.2025

Sr. No	<b>Department</b>	Equipment Details	Specification	Total Quantity
1.	Botany	Decibel Meter	Range: 30-130 Db Frequency: 31Hz-8KHz	2
2.	Botany	Horizontal Electrophoresis Systems 7×10 cm	Mini horizontal electrophoresis system, including 8- and 15-well combs, UV-transparent tray, casting gates, Buffer tank, Lid with cables. Comprehensive Warranty: min 2 years	2
3.	Botany	Horizontal Electrophoresis Systems 15×10cm	Mini horizontal electrophoresis system, including 8- and 15-well combs, UV-transparent tray, casting gates, Buffer tank, Lid with cables. Comprehensive Warranty: min 2 years	1
4.	Botany	Power pack for Electrophoresis	Output specifications: 10–300 V, fully adjustable in 1 V steps, 4–400 mA, fully adjustable in 1 mA steps 75 W (maximum) Type of output: Constant voltage, constant current with automatic crossover Output terminals: min. 3 pair recessed banana jacks floating in parallel. Timer control: 1 min–99 hr 59 min, fully adjustable. Pause/resume function: Yes Automatic recovery after power failure: Yes Safety features: No-load detection; rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over-temperature protection Operating Conditions: 0–40°C, 0–95% humidity in the absence of condensation. Comprehensive Warranty: min 2 years	2
5.	Botany	SDS PAGE Electrophoresis Systems	Vertical electrophoresis system, including electrode assembly, tank, lid with power cables, mini cell buffer dam	1
6.	Botany	UV trans illuminator	UV-Transilluminator, Minimum View area 25 x 13 cm, Basic system with satebeam filter, High range, 360nm, Four UV lamps, air cooling fan, orange UV blocking shield. Comprehensive Warranty: min 2 years	2
7.	·	Stereo Microscope	Microscope - Stereoscopic Required image flatness and contrast, Long working distance min 100 mm, Super Widefield 10x eyepieces; Viewing Head: Inclined at 45°, rotatable 360°; Eyepiece: Extra wide field eyepiece EW10×/22; Zoom Objective: min 0.67×-5×, Stage Plate: Glass Insert Plate, Diameter 100mm, White & Black round plate Incident Illumination 100V-240V/ LED preferred Transmitted Illumination 100V-240V/ LED preferred	9
8.	Botany	(a) Vertical Gel Electrophoresis system	Vertical electrophoresis system, including electrode assembly, tank, lid with power cables, mini cell buffer dam	1
9.	Rotany	(b) Electroblot Transfer Module	Gel transfer cell, for two 10 x 7.5 cm gels, includes two gel holder cassettes, foam pads, electrodes, tank, blue cooling unit, lid with cables	1

Sr. No	Department	Equipment Details	Specification	Total Quantity
10.	i Botany	(c) Power supply for Electroblotter	Output specifications: 10–300 V, fully adjustable in 1 V steps, 4–400 mA, fully adjustable in 1 mA steps 75 W (maximum) Type of output: Constant voltage, constant current with automatic crossover Output terminals: 4 pair recessed banana jacks floating in parallel Timer control: 1 min–99 hr 59 min, fully adjustable Pause/resume function: Yes Automatic recovery after power failure: Yes Safety features: No-load detection; rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over-temperature protection	1
11.	i Botanv	Test sieves (Brass mesh)	20 Micron 50 Micron	3 each

Sr. No	Department	Equipment Details	Total Quantity
12.	Chemistry	Colorimeter [digital] with cuvette	2
13.	Chemistry	pH meter with glass and calomel electrode	4
14.	Chemistry	4 Boiling point & Melting point apparatus (Digital temperature indicator) (USP/IP)	5
15.	Chemistry	Vacuum pump	3
16.	Chemistry	TLC Plate (UV) Checking chamber	4
17.	Chemistry	Domestic microwave for one pot synthesis (portable) (solvent free) with reaction vessel	2
18.	Chemistry	Molecular Model Set	2
19.	Chemistry	Magnetic Stirrer with temperature control (2Lit)	4
20.	Chemistry	Deep freezer (-20°C)	1
21.	Chemistry	Calorimeter	4
22.	Chemistry	Hot Air Oven (Inner Chamber Size (24x24x24 inch))	1
23.	Chemistry	Potentiometer	2
24.	Chemistry	Conductometer	3
25.	Chemistry	Centrifuge (16000rpm)	1
26.	Chemistry	Double distilled water plant Borosilicateglass/quartz (with water softener 4lit per hour) with dry heat autocut	2
27.	Chemistry	Platinum electrode	10
28.	Chemistry	Conductivity Cell (cell constant 0.1)	7
29.	Chemistry	Shaker machine (Platform size 18inch x 12)	1
30.	Chemistry	Pocket pH-meter pH 1 w/o ATC pH accuracy ± 0.1 pH	10
31.	Chemistry	CTS Pocket Conductivity, Salinity and TDS meter	10
32.	Chemistry	Incubators Bacteriological, Capacity (L) :125 Ltr Chamber Size :600 X 450 X 450 mm	1
33.	Chemistry	Sonicator (6.5 Lit.), Stainless Steel	1

Sr. No	Department	Equipment Details	Specification	Total Quantity
34.	Physics and Electronics	Set-up for the determination of Modulus of Rigidity of a Wire by Maxwell's needle.	Complete set with:  a. Maxwell`s Vibration Needle Graduated. b. Stand for Mawwell's needle c. Screw Gauge, d. Steel wire e. Digital Stop watch, f.Spring balance	3
35.	Physics and	Set-up for the determination of the	Complete set with:	6

Sr. No	Department	Equipment Details	Specification	Total Quantity
	Electronics	elastic Constants of a wire by Searle's method.	Searles rigidity apparatus ( Searles Pattern) , stand for above rigidity apparatus, Two identical bars wire	
			Digital stop watch. 1/100th sec Micrometer screw gauge. Vernier callipers	
36.	Physics and Electronics	Set-up for the determination of the value of g using Bar Pendulum.	Bar Pendulum, Wall hanging bracket, Digital stop watch (0.001 Second accuracy).	3
37.	Physics and Electronics	Set-up for the determination of the value of g using Kater's Pendulum.	A Kater's pendulum, Digital Stop watch, Wall hanger with sharp knife edges.	4
38.	Physics and Electronics	Measurement of field strength B and its variation in a solenoid (determine dB/dx)	<ol> <li>SOLENOID - Made of soft iron,</li> <li>DIGITAL POWER SUPPLY FOR Solenoid-</li> <li>3Amp (constant), 30V digital display,</li> <li>DIGITAL GAUSS METER: Range: 0-2 K Gauss &amp; 0-200 Gauss,</li> <li>Gauss Probe</li> </ol>	4
39.	Physics and Electronics	Set-up for the determination of self inductance of a coil by Anderson's bridge	Complete set with Digital null detector, 1 KHz Sine wave Audio Oscillator with variable amplitude. necessary jacks & cords & detailed manual.	5
40.	Physics and Electronics	Set-up for study response curve of a Series LCR circuit and determine its (a) Resonant frequency, (b) Impedance at resonance, (c) Quality factor Q, and (d) Band width.	L-C-R arrangement, Audio Oscillator 10KHz with Digital Frequency counter, Digital AC Millivoltmeter, Digital AC Mlliammeter, necessary jacks & cords .	5
41.	Physics and Electronics	Set-up for study the response curve of a parallel LCR circuit and determine its (a) Anti-resonant frequency and (b) Quality factor Q.	L-C-R arrangement, Audio Oscillator 10KHz with Digital Frequency counter, Digital AC Millivoltmeter, Digital AC Mlliammeter, necessary jacks & cords	5
12.	Physics and Electronics	Set-up for the Measurement of charge and current sensitivity and CDR of Ballistic Galvanometer	Power Supply: +2V DC, at 100mA Variable Resistor Box: 1-1K, 1-100K, 1-100K (P, Q and R) Push Key: One Push Key 4Way Key: One 4Way Key Ballistic Galvanometer With Lamp and Scale Arrangement	4
43.	Physics and Electronics	Set-up for the determination of a high resistance by leakage method using Ballistic Galvanometer.	Complete set with power supply and Ballistic Galvanometer With Lamp and Scale Arrangement	4
44.	Physics and Electronics	Set-up for the determination of self- inductance of a coil by Rayleigh's method.	Complete set with P.O.Box., Ballistic with lamp & scale, Stop watch. Digital, Resistance Box 0.01 ohm to 10 ohm, Inductance, Power Supply 0-3V Variable, Plug Key 1Way, Inductance, Power Supply 0-3V Variable, Plug Key	4
45.	Physics and Electronics	Set-up for the determination of the mutual inductance of two coils by Absolute method.	Complete set with  Mutual inductance set (Dial type), Ballistic galvanometer with lamp and scale arrangement, Low resistance box(0.1 to 0.001 ohm), Two	4

Sr. No	Department	Equipment Details	Specification	Total Quantity
			Resistance box, commutator, variable power supply	
46.	Physics and Electronics	Set-up for the determination of the frequency of an electric tuning fork by Melde's experiment andverify λ² –T law.	Complete experimental set up with Power Supply, all mounting arrangement, cord, pan, clamp with pulley, weights.	3
47.	Physics and Electronics	Set-up for the investigation of the motion of coupled oscillators.	Complete set with: Two compound pendulums suspended separately and connected by a coupling spring, stand. Digital Stop watch	4
48.	Physics and Electronics	Set-up for the determination of wavelength of sodium light using Fresnel Biprism.	Bi Prism Assembly. Heavy type.  a. Optical Bench Bed. Heavy type. b. Bi Prism holder. c. Lens holder. d. Optical slit. e. Micrometer eyepiece. F. Bi Prism G. Na Lamp H. Lamp House I. Transformer for Na lamp	4
49.	Physics and Electronics	Set-up for the determination of wavelength of sodium light using Newton's Rings.	Complete with Two Motion Newton`s ring Microscope, Set of Newton`s ring lens with mounting & adjustment arrangement. One Plano-convex lens and glass plate Na Lamp Lamp House Transformer for Na lamp	5
50.	Physics and Electronics	Set-up for the determination of wavelength of (1) Na source and (2) spectral lines of Hg source using plane diffraction grating.	Complete with: Spectrometer 7" VC: 20Sec Na lamp, Transformer, Lamp house Hg lamp, Transformer, lamp house Imported grating 15000 LPI	4
51.	Physics and Electronics	Set-up for the determination of dispersive power and resolving power of a plane diffraction grating.	Spectrometer 7" VC: 20 Sec; Mercury lamp Hg Lamp Transformer, lamp house Resolving power attachment, Imported grating.15000 LPI	5
52.	Physics and Electronics	Set-up for the determination of Mechanical Equivalent of Heat J, by Callender and Barne's constant flow method.	Callender and Barne`s apparatus  2 no. Thermometer of 110 C with graduation 0.1 C  A stabilized Power supply giving variable output DC voltage Plug key 2 Way Plug key 1 Way Rubber tube Pinch cork Rheostat A measuring cylinder(100ml) a voltmeter An ammeter	4
53.	Physics and Electronics	Set-up for the determination of the Coefficient of Thermal Conductivity of	Searle's apparatus Thermometers	4

Sr. No	Department	Equipment Details	Specification	Total Quantity
		Cu by Searle's Apparatus.	Arrangements for circulation of water and production of steam	
			Measuring cylinder	
	Physics and	Set-up for the determination of the	Complete set with  Power Supply 0-50V/6A	
54.	Electronics	Coefficient of Thermal Conductivity of Cu by Angstrom's Method.	Variac to Control Voltage/ Temperature. Thermometer 250 degree 4Nos. Switching Arrangement with ON/Off Control	4
		Cat up for the data main ation of the	Copper Rod fitted in a wooden cabinet	
55.	Physics and Electronics	Set-up for the determination of the Coefficient of Thermal Conductivity of a bad conductor by Leeand Charlton's	Lee`s & Chorlton`s apparatus. With bad conductor.  2 no thermometer of 110 C with graduation 0.1 C,	4
		disc method.	boiler, Rubber tube  Complete Set with:  Galvanometer	
56.	Physics and Electronics	Set-up for the determination of the Temperature Coefficient of Resistance by Platinum Resistance Thermometer (PRT).	2 Volts power supply, Plug Commutator, Plug Key 1 Way. Heating system Long neck Glass Flask (Borosil) with side tube & Rubber Cork Post Office Box, Meter Bridge, Platinum Resistance Thermometer, Aniline (Merck).	4
57.	Physics and Electronics	Set-up for the study of the variation of Thermo-Emf of a Thermocouple with Difference of Temperature of its Two Junctions.	Complete Set with: Thermocouple, Thermometer, Potentiometer with jokey Power Supplies: DC Supply IC Regulated +2/4V DC, 500mA. Null Detector	4
58.	Physics and Electronics	Set-up for the calibration of a thermocouple to measure temperature in a specified Range using(1) Null Method, (2) Direct measurement using Op-Amp difference amplifier and to determine Neutral Temperature.	Complete Set with: Thermocouple, Thermometer, Potentiometer with jokey Power Supplies: DC Supply IC Regulated +2/4V DC, 500mA. Null Detector	4
9.	Physics and Electronics	Set-up for the determination of the Young's Modulus of a Wire by Optical Lever Method.	Young's modulus apparatus with Copper wire , Optical lever, Weights with Hanger 250gm x 6 sets , Reading telescope with scale	2
0.	Physics and Electronics	Set-up for Motion of Spring and calculate (a) Spring constant, (b) g and(c)Modulus of rigidity	Complete set with Spiral spring weight box Digital Stop watch Screw gauge.	4
61.	Physics and Electronics	Set-up for Moment of Inertia of a Flywheel	Flywheel (wall hanging type), thread, weight box, slide caliper, digital stopwatch,	5
62.	Physics and Electronics	Set-up for determination of g and velocity for a freely falling body using Digital Timing Technique	Complete set with : Free fall stand, Digital timer, pendulum Bob, Electromagnet, power supply	5
63.	Physics and Electronics	Set-up of Coefficient of Viscosity of water by Capillary Flow Method (Poiseuille's method	Complete experimental setup. Viscosity apparatus by capillary flow method, Traveling microscope,	4

Sr. No	Department	Equipment Details	Specification	Total Quantity
			Measuring cylinder of 250 cc, rubber tube Stopwatch (digital).	
64.	Physics and Electronics	MATLAB R2022a / R2021a • For: Windows 7 64 / Windows 10 64		2
65.	Physics and Electronics	High Voltage DC Regulated Power Supply 0-300V/5A	Type Manual, Semi-automatic Phase Single Phase Output Voltage 0-300 V Input Voltage 230V +/-10% AC 50 Hz	3
66.	Physics and Electronics	Digital Storage Oscilloscope	100 MHz Bandwidth (2 Channel model)	3
67.	Physics and Electronics	Measurement of Numerical Aperture of an Optical Fiber using LASER	Complete with Laser diode 2Mw, Half-meter optical bench (Rod type bench), Fiber chuck holder Fiber holder Optical fiber cable one meter long with connector screen	2
68.	Physics and Electronics	Solar Cell Trainer	Study of V-I Characteristics of solar cell Digital voltmeter 20V DC Digital Ammeter 200mA DC Operated on Mains power 230V, 50Hz +10% Solar cell unit (Mounted on stand) Light source (100W blub) Load control through potentiometer	2
69.	Physics and Electronics	Characteristics of one Solid State sensor/ Fiber optic sensor	SCOPE OF LEARNING: Study ofLM35 1C as TemperatureMeasuring TransducerSPECIFICATIONS: TECHNICALDigital Meters:• Voltmeter 200mV DC. Power Supplies:DC Supply IC Regulated +12V, +5V DC,150mA. Operated on Mains power 230V, 50Hz+10%Components are mounted on the panelsare:LM35, Variable Resistor, 741 1C, Thermometer	1
70.	Physics and Electronics	Photo Diode Trainer	Study of V-I Characteristics of PhotoDiode TECHNICAL SPECIFICATIONS: Analog Meters:• Volt meter 6V DC. Ammeter 10ma/100uA DC.Power Supplies:DC Supply IC Regulated 0-10V DC,150mA.Operated on Mains power 230V, 50H+10% Components mounted on thepanels are:Photo Diode Unit, Light Source (100W Bulb)Voltage Control through , Potentiometer.Wooden Optical Bench With ScaleEngraved	1
71.	Physics and Electronics	AM Transmitter and Receiver Trainer	The A,M transmitter setup with built I.C. regulated power supply helps to study the Modulator using a transistor and how Signal can be added to a carrier & observe the amplitude- modulated waveforms & check the percentage of Modulation. The trainer consists of i) Inbuilt Carrier frequency Generator ii) Signal Frequency Generator: Variable frequency [ 100 Hz – 1 KHz ] iii) A.M transmitter	1

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			The A.M receiver setup receive the modulating signal using simple Transistorized receiver and recover the signal.	
72.	Physics and Electronics	Analog Time Division multiplexing & Demultiplexing	This kit provides facilities to students for experimentation in the area of Pulse Amplitude Modulation, Demodulation and Time Division Multiplexing of those signals. It provides the student a facility to examine Sampling, Multiplexing, demultiplexing and signal reconstruction.	1
73.	Physics and Electronics	Frequency Division Multiplexing & De- multiplexing Trainer	In frequency-division multiplexing (FDM), multiple signals are combined for transmission on a single communications line or channel, with each signal assigned to a different frequency (sub channel) within the main channel.  The frequency Division multiplexer trainer kit contains 2 independent channels for Multiplexing and Demultiplexing The trainer contains A. FDM Multiplexer a) Two Analog Modulators with independent Variable carrier & Signal Frequencies i) Two Analog Modulator . ii) Multiplexer iii) Signal Frequency: 100 Hz to 1 KHz variable and Output voltage: 0 – 5 V. iv) Carrier Frequency: 18 KHz[Fixed] and 65 KHz [Fixed]. B. FDM Demultiplexer Trainer i) Buffer ii) Two active Band pass Filter iii) Two AM Demodulator	2
74.	Physics and Electronics	ASK Modulation & Demodulation Trainer	The single board trainer helps to studies ASK Modulation & Demodulation technique. The trainer consists of Square wave Signal source: Variable Frequency [ 100 Hz – 700 Hz ] Sine wave carrier Generator: Variable Frequency [ 10 KHz – 100 KHz ] Modulator using Transistor Demodulator	1
75.	Physics and Electronics	PSK Modulator & Demodulator Trainer	The single board trainer helps to studies Phase Shift Keying Modulation & Demodulation. The trainer consists of i) Sine wave Carrier Generator: Frequency 33 KHz ii) Square wave Signal source: Variable frequency 16 KHz [ Max ] and Amplitude 5V [ Max ]. iii) PSK Modulator iv) PSK Demodulator	1
76.	Physics and Electronics	FSK Modulation and Demodulation Trainer	The single board helps to study FSK Modulation & Demodulation. The trainer consists of i) Signal source: Variable frequency [ 20 Hz – 1KHz ] and	1

Sr. No	Department	Equipment Details	Specification	Total Quantity
	·		Amplitude [ 10V max ]	
			ii) Modulator section with carrier frequency	
			Generator using XR2206	
			iii) Demodulator section using I.C 565	

Sr. No	Department	<b>Equipment Details</b>	Specification	Total Quantity
	Mathematics, Statistics and	Desktop Computer	Desktop PC: Core i3 (13 <sup>th</sup> Gen)/ Ryzen 5 (min 5600G), 8GB RAM (DDR5, min 4800Mhz), 512GB SSD NVME M2,	18
77.	Computer		5 <sup>th</sup> Gen SSD, Windows 11 OS, with 24 inch LED IPS	
	Science		Monitor Min 75Hz, 450nits and 650VA UPS, Mechanical	
			KB and corded mouse	
		High End Desktop for Data	High End Desktop: i7, (13th Gen)/ Ryzen 9 (12 cores, 24	6
		Analysis	threads), 16GB RAM (DDR5, min 6000MHz),4 GB GFX,	
78.			Preloaded OS, 1TB NVME M2, 1TB HDD (7200RPM), 5 <sup>th</sup>	
70.			Gen NVME M2 SSD, 27" LED IPS Monitor (Min 75Hz,	
			450nits) and 650VA UPS. Mechanical KB and corded	
			mouse	
79.	-do-	IR Infrared Obstacle Avoidance Sensor	IR Infrared Obstacle Avoidance Sensor	10
80.	-do-	IOT Sensors Sets	IOT Sensors Sets	4
81.	-do-	Ultra-low power 2.4GHz RF Wireless Transceiver	Ultra-low power 2.4GHz RF Wireless Transceiver	6
82.		Router Dual Band Wireless, Wi- Fi Min speed 867Mbps/5GHz	Router Dual Band Wireless, Wi-Fi Min speed 867Mbps/5GHz	4
83.	-do-	IOT Device Hardware Interface Ethernet	IOT Device Hardware Interface Ethernet	2
84.		Microcontroller board UNO R3 with ATmega328P	Microcontroller board UNO R3 with ATmega328P	4

Sr. No	Department	Equipment Details	Specification	Total Quantity
85.	Zoology & Microbiology	pH (Multiparameter) Meter	Name : Dual-Input pH/ORP/ISE/Temperature Bench Meter with Calibration Check, pH Range: -2.0 to 20.0 pH / -2.00 to 20.00 pH / -2.000 to 20.000 pH, pH Resolution: 0.1 pH / 0.01 pH / 0.001 pH, pH Accuracy: ±0.1 pH / ±0.01 pH / ±0.001 pH, pH Calibration: Up to 5 points / 7 standard buffers (1.68, 4.01, 6.86, 7.01, 9.18, 10.01, 12.45) / 5 custom buffers, ORP Range: ±2000.0 mV,ORP Resolution: 0.1 mV, ORP Accuracy: ±0.2 mV,ISE Range:1.00 E-7 to 9.99 E10 conc, ISE Resolution: 3 digits 0.01, 0.1, 1, 10 conc., ISE Accuracy: ±0.5% of reading (monovalent ions)/±1% of reading (divalent ions), ISE Calibration :Up to 5 points :6 standards (0.1, 1, 10, 100, 1000, 10000 ppm),:(divalent ions), Temperature Range:-20.0 to 120.0 °C Temperature Resolution: 0.1 °C (0.1 °F), Temperature Accuracy: Accuracy ±0.2 °C (±0.4 °F) Rel mV offset range: ±2000 mV, Temperature Compensation:Manual and Automatic, Electrode:pH / ORP / ISE electrodes, Temperature probe: RCA Connection, LOG on demand: min200 samples	2
86.	Zoology & Microbiology	Pen-type pH Meter for field study	Display: LCD, size : 20 mm x 28 mm. * With bar graph indicator. Measurement pH 0 to 14 pH.	4

Sr. No	Department	Equipment Details	Specification	Total Quantity
			Range Temp5 to 80 (23 to 176). Resolution pH 0.01 pH. Temp. 0.1 / 0.1 . pH Input :10^12 ohms pH Electrode Included.:* PE-12 Accuracy pH ± 0.02 pH * After calibration, meter without PE-12 electrode. ± 0.2 pH * After calibration, meter with PE-12 electrode. Temp. ± 0.8 / ± 1.5 .Data Hold Freeze the display reading. pH Temp. ATC (Automatic temperature Compensation compensation), build in thermister Temp. sensor	
87.	Zoology & Microbiology	Precision analytical balance	Maximum Capacity: 220.0 g Minimum Weight: 10.0 mg Readability: 0.1 mg Auto calibration	1
88.	Zoology & Microbiology	Horizontal Electrophoresis Systems 7.5*10 cm	Mini horizontal electrophoresis system, including 8- and 15-well combs, UV-transparent tray, casting gates, Buffer tank, Lid with cables.	2
89.		Horizontal Electrophoresis Systems 15*10cm	Mini horizontal electrophoresis system, including 8- and 15-well combs, UV-transparent tray, casting gates, Buffer tank, Lid with cables.	2
90.	Zoology & Microbiology	Vertical Electrophoresis Systems	Dimensions of Glass Plates in cm x cm: 10x10; Dimensions of Gel in cm: 8x8.5; Thickness of comb (mm): 1.00; Thickness of spacers (mm): 1.00; Number of gels can be run: 2; Number of well combs: 5; Construction of Unit: Single Moulded; Casting Module Included;	1
91.		Basic Power pack for Electrophoresis	System should be provided with atleast three sets of output terminals to deliver constant voltage or current; Output range voltage: 10-300v; current: 4-400ma; power: 75 watts or better Led display for voltage, current, power and time; Type of output: Constant voltage, constant current with automatic crossover Timer control: 1 min–99 hr 59 min, fully adjustable. Safety features: No-load detection, sudden load change detection, overload/short-circuit detection, overvoltage protection. ~200–260 VAC, 50/60 Hz, autoswitching Comprehensive Warranty: min 2 years	1
92.	Zoology & Microbiology	Tabletop autoclave	Type: Table top or bench top steam sterilizer; Sterilizer chamber capacity in L (usable volume): 15 - 25 liter; Type of cycle processes available: B-process, N- process, Dri-Tec drying - process; Sterilizer Chamber Type: Circular; Steriliser chamber material: SS 316 or better grade steel; Working Pressure of Chamber:2.2 bar; Design Pressure of Chamber:3.8 bar; Type of Sterilizer Chamber Door: Hinged Door; Door sealing::By elastomeric rubber gasket suitable to withstand temperature upto 140 degree C & pressure upto 20-30 psi; Inlet Air Filtration: Yes, Atmospheric air shall enter the sterilisation chamber after its filtering by a disposable air filter provided in the equipment.	1
93.		Safety hood horizontal Laminar flow with HEPA	CE European and US FDA; ISO 9001 & ISO 13485; work bench: Stainless steel 316 grade; front & Side door: Acrylic transparent; the Side panels Stainless steel 304 grade; UV Hour meter preferred; UV Germicidal lamp: Yes DOP HEPA filter :Yes Pressure Gauge with Alarm; Warranty 1 year	1
94.	Zoology & Microbiology		Magnification: 10-20 x; Prism Type; Prism glass material: Barium crown; Prism glass coating: multi layer coated;	3

Sr. No	Department	Equipment Details	Specification	Total Quantity
			Lens coating: multi layer coated; Field of view @ 1000 metre: 70- 115 meters 4-6.4 deg approx.; Objective Lens Diameter: 42 millimeter. Focusing System: center focus;	
95.	Zoology & Microbiology	Desktop PCs	Desktop i7 (12 <sup>th</sup> Gen)/Ryzen 7 Processor, 1TB NVME M2 SSD, Preinstalled OS & Office, min 2GB Graphics memory 16GB RAM, 27" FHD, IPS, min75Hz Monitor Mechanical KB with numeric keys & Mouse (1000dpi)	6
96.	Zoology & Microbiology	Sothern Blotting Set		1
97.	Zoology & Microbiology	All Quartz/Borosilicate glass Double distillation plant with dry heat auto cut	All Quartz/Borosilicate glass Double Distillation chambers, Min 2.0L/Hr capacity. Dry heat automatic cut out	1
98.	Zoology & Microbiology	Alcohol distillation unit	Borocilicate glass of 1 Lit Capacity	1
99.	Zoology & Microbiology	Colorimeter [digital] with cuvette	Wavelength Range:minimum 400-700 nm; Minimum Volume: 1ml in 4ml Test tube. Std Glass Filters: min 8 Filters. Display: LED Absorbance: 0-1.99 Detector: Hermetically Sealed photodiode or better configuration; Filter Range 420 nm, 440 nm, 490 nm, 520 nm, 540 nm, 570 nm, 600 nm, 700 nm. Light Source: White LED Measuring Modes: %T & Abs; Accessories: Four Test Tubes	5
100.	Zoology & Microbiology	Colony Counter	Display: min. 3 Digit LED; Microprocessor Colony Counter	2

Quotation may be submitted within specified date and time positively on working days from 11.00 a.m to 4.00 p.m in the Office Chamber of the Principal.

The date of opening tenders 16.01.2025 at 12.00 Noon Bidders may remain present during that period. The authority reserves the right to cancel the order / refuse the item / articles, in case any variation is found from the original terms and conditions.

Further details of items may be had from the office of the Undersigned in all working days in working hours.

Sd/-Teacher-in-Charge Midnapore College (Autonomous) Midnapore