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Acharya Prafulla Chandra College

(NAAC ACCREDITED 'A' GRADE COLLEGE) (Govt. Sponsored)
New Barackpore, North 24 Parganas, Kolkata-700 131, West Bengal

NIQ: 101/APC/Electronics/Equipments/2025

Date: 13.11.2025

Notice

Sealed quotations are invited within **fifteen** days for the supply of the under mentioned items for the Department of Electronics. The indicated quantity of each item is approximate and may change based on requirement.

Please mention the name of the department along with the NIQ number on top of the envelope.

Sl.No.	Item Specification	Approx Quantity
1	Microcontroller kit Arduino board with power supply & interface Microcontroller (Arduino Uno R3)board based on the ATmega328 (datasheet). Ports : 14 digital input/output pins (of which atleast 6 can be used as PWM outputs); 6 analog inputs Other features:; inbuilt ceramic resonator, a USB connection, a power jack, an ICSP header, and a reset button.	02
2	Interface module for Arduino Board compatible with above model i) DC motor ii) Stepper motor iii) LCD Display iv) Traffic light v) Temperature Measurement vi) Light sensor vii) Ultrasonic Sensor	02
3	Wheatstone Bridge kit a. Series Arm : Four Decade Resistance Dial in Steps of 1000, 100, 10, 1 Ohm. b. Ratio Arm : Ratio Arm of bridge should be capable of selecting Multiplying Factor of 0.001, 0.01, 0.1, 1, 10, 100, 1000. M1000, M100 & M10 Ohms for Resistance measurement. c. One selectable switch with option for Direct or Shunted Sensitivity of Galvanometer d. One Galvanometer (20m per division) fitted on the panel with option of External or Internal Switch with Terminal, e. Two Press Keys provided marked as Initial (X1) & Final (X2). f. Murrey&Varley Test Switch : One Toggle switch to be provided on the front panel for selection between the function of Murray (MV) Test & Varley (VR) Test. f. One 9 volt DC power supply fitted in the Box	01
4	Strain Gauge kit a. Strain Gauge : Four Strain Gauge mounted upon cantilever 150 x 35 x	01



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	<p>3.5mm</p> <ul style="list-style-type: none"> b. Excitation : Stable DC Voltage for Strain Gauge Bridge c. Signal Conditioner : Operational Amplifier Based d. Amplifier : Precision Instrumentation Amplifier with Variable Gain e. Weight : Five Nos. (Each 200gm) f. Test Points :Sockets at different places for signals. g. Potentiometer : Two for Zero & Calibration adjust h. Display : 3.5 Digit Digital (Kg) i. Inbuilt Power Supply for operation of the kit: (With Short Circuit & Overload Protection) 	
5	<p>SCR bridge kit</p> <ul style="list-style-type: none"> a. In-built Fixed AC Power Supply of 9V - 0 - 9V/1Amp. AC. b. Operated On Mains Power 230V, 50Hz $\pm 10\%$. c. On Board Four number of SCR's are to be mounted inside the panel. d. On Board Four Number of Potentiometer for Control of the Phase Angle. e. On Board Analog Digital Voltmeter (0-20 DC) & Ammeter (0-200mA DC) for measure the Voltage & Current for Table. f. On Board Resistance Load (1KΩ), RL Load (270Ω/ 1W, 68mH - 2 Nos. connected in Series). g. One Capacitor (100μF/ 25V) for observe the AC Ripples & Diode 4007 for Free Wheeling Diode. h. Circuit Diagram printed & Test Points should be available on front panel. 	01
6	<p>Trainer kit for Amplitude shift keying (ASK)</p> <ul style="list-style-type: none"> a. In built IC based DC Regulated Power Supply $\pm 12V$ & $+5V$/ 500mA. b. On board Data Signal Generator, Frequency 5KHz, Amplitude : 4Vpp Approx. c. Modulation using VCO 8038 (Carrier Generator Internally 62KHz, 5.5Vpp d. Demodulation Circuit using Phase Locked Loop IC LM 565. e. Modulation using Linear Multiplier (Balanced Modulator using IC LM 1496). f. Demodulation of Diode as Envelop Detector, Low Pass Filter using IC TL 082 followed by Comparator IC using LM 311 	01
7	<p>Trainer kit for Frequency Shift Keying (FSK)</p>	01



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	<ul style="list-style-type: none"> a. On board Data Signal Generator, Frequency 10KHz & 5KHz, Amplitude : 5Vpp Approx. b. On board Carrier Signal Generator, Frequency 100KHz & 50KHz, Amplitude : 6Vpp Approx. c. Modulation using Linear Multiplier (Balanced Modulator using IC LM 1496) followed by Adder TL081 d. Demodulation Circuit using Phase Locked Loop IC 4096 followed Low Pass Filter TI082 & Comparator IC 3140 	
8	Trainer kit for Phase Shift Keying (PSK) <ul style="list-style-type: none"> a. On board Data Generator using IC 7490. b. On board Carrier Signal Generator, Frequency 22KHz, Amplitude : 5Vpp Approx. c. Modulation using IC 4051. d. Demodulation Circuit using using IC TI084 & IC 7486. 	01

Terms and Conditions:

All vendors are required to take note of following while forwarding the quotations and must comply with the same.

1. The Operating system will be licensed in the name of Acharya Prafulla Chandra College, New Barrackpore.
2. The rates quoted shall be for free delivery and installation at A.P.C. College.
3. Full specifications of the article quoted for shall be given in the quotation .
4. If taxes, duties or any other charges over and above the rates quoted are leviable, actual percentage of such taxes/duties/other charges should be clearly indicated, in the absence of which, it would be presumed that all taxes are inclusive and would be calculated accordingly.
5. The supplier should possess valid licence issued by government authority for sale of items as stated in invitation of quotation letter and copy of same must be attached..
6. The suppliers are requested to follow all the norms and guidelines framed by the Government of West Bengal in respect of stated items and copy of same must be attached.
7. In case the vendor is an authorized dealer/distributor of the quoted items necessary certification authorizing the vendor for such supply should be included with quotation.
10. The Principal, AcharyaPrafullaChandra College, New-Barrackpore reserves the right to give order to any firm ;not necessarily to the one with the lowest quotation or to accept or reject any or all the quotations either in full or in parts without assigning any reason.
11. If any discrepancy/concealment of facts comes into notice of college authority, the payment will be withheld.
12. Manufacturers/dealers blacklisted by WBSU need not apply. All are required to furnish the



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undertaking for the same.

13. TIN/TAN and GSTIN number is required to be mentioned.

14. If the rates are accepted and order is placed, the supply will have to be completed within a fortnight or the period specified in the order letter, from the date of order.

15. The rates quoted shall be valid for a minimum period of two months from the last date of receiving the quotation/ last date fixed for the receipt of quotations.

16. The department may ask for a demonstration of the equipments before placement of order.

Chhatu Chary
13/11/25
CHATTACHARY
Teacher-In-Charge
Acharya Prafulla Chandra College
New Barrackpur, North 24 Parganas