



OFFICE OF THE PRINCIPAL, GOVERNMENT POLYTECHNIC, DHENKANAL

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Quotation Call Notice

Letter No: 480 /Dt: 16/03/2026

Sealed quotations are invited from the interested Suppliers having valid GST within 15 days from the date of issue of the letter. The quotations will be opened at 11.00 AM on dt. 07/04/2026 in office chamber of Principal, Govt. Polytechnic, Dhenkanal in presence of institute purchase committee members or their authorized representatives. The quotation received after due date will not be entertained.

Terms and Condition

1. The envelope containing the quotation must be sealed and super scribed as Quotation for supply of Tools & Equipment for Electrical Engg. Department.
2. Sealed envelope containg quotation are to be sent by Register Post/Speed Post. No alternative items should be quoted to avoid confusion.
3. The undersigned reserves all rights to accept or reject the quotation in full or part thereof without assigning any reason.
4. Only firms with valid GST Number and GST amount to be mentioned in the quotation & invoice should submit the quotation.
5. Payment will be released through RTGS/NEFT/Cheque mode only after verification and satisfy demonstration at this end.

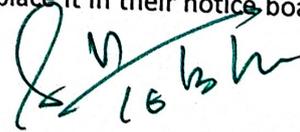


Principal

 Govt. Polytechnic, Dhenkanal

Memo No. 481 /Dt. 16/03/2026

Copy to INB of Govt. Polytechnic , Dhenkanal / Institute website / District Collector/Dist. Employment officer, Dhenkanal / DIC, Dhenkanal for information with request to kindly place it in their notice board for wide publication.



Principal

 Govt. Polytechnic, Dhenkanal

Principal

The Following Tools & Equipment required for Electrical Laboratory for smooth perform the 4th Semester practical experiment.

Sl. No	Name Of the Item	Specification	Qty
01	Single Phase AC Induction Motor with load arrangement and Control Panel Experiment: Conduct the direct load test to determine the efficiency and speed regulation for different loads on the given single phase induction motor, Plot the efficiency and speed regulation curves with respect to the output power	1-phase Capacitor Start Capacitor Run Motor (CSCR), 1 HP, 5A, 230V, Single phase foot mounted type Pony Brake Arrangements for the above consisting of Brake Drum, Belt and Dial type spring Balances etc. Portable AC Voltmeter (analog type) Range: 150/300/600Volts Portable AC Ammeter (analog type) Range: 5/10Amp	01 Set
02	Three phase Squirrel Cage Induction Motor with load a arrangement and Control Panel Experiment: i. Efficiency versus output, ii. Power factor versus output, iii. Power factor versus Motor current, iv. Torque-Slip/Speed Characteristics, v. Blocked-rotor test. Vi. VVVF(0-440)V	Squirrel Cage Induction Motor, 3HP, 3phase, 1440rpm, 415V, 50 HZ, SPDP, foot Mounted type Pony Brake Arrangements for the above consisting of Brake Drum, Belt and Dial type spring Balances etc. Control Panel for performing experiment on Squirrel Cage Induction Motor : Polycarbonate panel of 5mm thickness with UV screen printed with mimic diagram. Consisting of : AC Volt meter 0-500V, AC Ammeter 0-15A, Watt meter, 3-Pole MCB, Special Nylon based insulated terminals, indication lamp , assembled and wired in on a MS Box of suitable size Y-Δ Starter for 3HP, Sq. Cage Induction Motor (Semi automatic), Portable AC Voltmeter (analog type), Range: 150/300/600Volts Portable WATT METER (analog type), Range: 5/10Amp, 300/600Volt (UPF type P.F.= 1), Portable WATT METER (analog type), Range: 5/10Amp, 300/600Volt (1500-0-1500Watt, Center Zero) (UPF type P.F.= 1)	01 set
03	VVVF Drive 2.2KW	Input : 230Volt (1-Phase) Output : 415V (3-Phase)	01 No.
04	Synchronous motor with accessories and Control panel with starter. Experiment:- Conduct the test on load or no load to plot the 'V' curves and inverted 'V' curves (at no-load) of 3-P synchronous motor.	Excitation arrangements. Auto Synchronous Motor of 3 HP, 3 - ph, 415 V, 4 Pole, 1500 rpm, 50 HZ separately excited type with damper winding across the field pole. Polycarbonate panel of 5mm thickness with UV screen printed with mimic diagram. Consisting of : Variac 2A, Rectifier type Exciter, AC Volt meter 0-500V, AC Ammeter 0-15A, Watt meter, DC Voltmeter-300V, DC Ammeter-2A, 4-Pole MCB, Change Over Switch, Contactor, Push Button etc, Special Nylon based insulated terminals, indication lamp , assembled and wired in on a MS Box of suitable size.	01 Set
05	Portable Watt meter	Portable WATT METER (analog type), Range: 2.5/5Amp, 150/300/600Volt,(UPF type P.F.= 1)	01 No.
06	Portable Watt meter	Portable WATT METER (analog type) Range: 5/10Amp, 150/300/600Volt,(UPF type P.F.= 1)	01 No.

<p>07</p>	<p>Power Transistor Characteristics Trainer Board (Digital Meter) Experiment: Test the proper functioning of Power transistor.</p>	<p><u>V-I characteristics of BJT:-</u></p> <ul style="list-style-type: none"> ➤ V – I characteristics study trainer ➤ One variable DC power supply from 1.5V to 15V @ 100mA.to vary VBE. ➤ One variable DC power supply from 2.5V to 30V @ 500mA. to vary VCE . ➤ Consists of ONE BJT. ➤ One no-25 watt load resistor. ➤ 3 No's of Digital meters ➤ Works directly on 230V AC mains. <p>This unit is enclosed in a powder coated MS box with Screen printed front panel.</p>	<p>01 Set</p>
<p>08</p>	<p>SCR Commutation Techniques (Class A,B,C,D,E,F) Trainer Board (Digital Meter) Experiment: i. Perform the operation of Class A, B,C, turn-off circuits. ii. Perform the operation of Class – D,E,F, turn-off circuits.</p>	<p><u>FORCED COMMUTATION CIRCUITS (Class A, Class B, Class C, Class D and Class E):-</u></p> <ul style="list-style-type: none"> ➤ This unit consists of two SCR' s, Two diodes and different values of commutation components. These components can be interconnected to form power circuit to study <ul style="list-style-type: none"> i) Self commutation by load resonance (Class A) ii) Self-commutation using L-C Circuit (Class B) iii) Complimentary SCR Commutation(Class C) iv) Auxiliary Commutation (Class D) v) External commutation (Class E) ➤ Firing circuit for the above circuit with frequency variation and duty cycle. ➤ The Unit with built in DC unregulated power supply of 24 @1A. ➤ 230V AC mains operated. <p>The Required Accessories are Rheostats – 100 ohm /2A – 2Nos.</p>	<p>01 Set</p>
<p>09</p>	<p>Stepper motor controller with control panel:- Experiment: Control the speed and reverse the direction of stepper motor</p>	<ul style="list-style-type: none"> ➤ This unit is microcontroller based controller circuit to accurately generate pulses to energize the stepper motor winding in the desired sequence. ➤ Power transistor based driver ckt. to drive the stepper motor. ➤ 2x16 LCD display to set and display the parameters, and able to set the speed of the motor in RPM, number of steps motor can move, direction of rotation – forward and reverse direction with half step and full – step mode. ➤ The stepper motor fitted on the panel and all the connections are brought to a connector. ➤ The dial is fitted to the shaft of the stepper motor. ➤ The inner dial marking in steps and outer marking in degrees. ➤ Step angle : $1.8^{\circ} + / - 0.1^{\circ}$ 3 Kg Cm = 0.1 NM Steps per revolution : 200 Half step = 0.9° Voltage -5VDC 230V ac Mains operated 	<p>01 Set</p>