

## ELECTRICAL ENGINEERING LAB EQUIPMENTS

### [1] ELECTRICAL MEASUREMENT LAB

SL. NO.	NAME OF THE EQUIPMENT	REMARKS
01	Kelvin's Double Bridge Board	
02	D.C. Potentiometer with 12V (DC) and Standard Cell	
03	Temperature Transducer Kit	
04	Transformer Oil Dielectric Strength Testing Kit up to 30 KV/cm	
05	1- $\phi$ Energy meter Testing Set	
06	3- $\phi$ Energy meter Testing Set	
07	Ammeter 0-5A (AC), 0-10A (AC)	
08	Voltmeter 0-300-600V	
09	Rheostate (Various Ranges)	
10	Multimeter (Analog)	
11	Wattmeter 0-350W 0-150W, 0-75W	

### [2] ELECTRICAL TRACTION LAB

SL. NO.	NAME OF THE EQUIPMENT	REMARKS
01	Speed Control Set of D.C. Shunt Motor by thyristorised Control Method	
02	3- $\phi$ Slip ring induction motor 3 H.P.	
03	Study set of Rheostatic Braking for D.C. shunt motor	
04	Study set of Rheostatic Braking for induction motor	
05	Study set for Regeneratative braking for D.C. Shunt motor	
06	Study set for Regeneratative braking for D.C. series motor	
07	D.C. series motor set with different diverter positions	
08	2 H.P. D.C. shunt motor	
09	2 H.P. D.C. series motor	

[3] **ELECTRICAL ENGINEERING LAB**

<b>SL. NO.</b>	<b>NAME OF THE EQUIPMENT</b>	<b>REMARKS</b>
01	Study set of A3- Pont manual starter	
02	Study set of A4-Point manual Starter	
03	Study set of a Drum Controller of D.C. series motor	
04	Study set of an automatic starter of A D.C. motor	
05	Speed Controll set of a D.C. shunt motor (a) For swinburne's test (b) For hopkinson's test (c) For Retardation test	
06	D.C. Shunt generator 2KW with suitable field regulator connected with 3- $\phi$ swuirrel cage induction motor as prime mover	
07	D.C. compound generator 2.5 KW, 250V with control panel including field rheostate, voltmeter, Ammeter & CB with 3- $\phi$ sq cage induction motor as prime mover	
08	Manual coil winding machine for armature winding	
09	DC Shunt motor 2 HP, 220 Volt screen protected with suitable three point starter with mechanical braking arrangement	
10	DC series motor 220 Volts, 2 HP screen protected with suitable drum type starter with mechanical braking arrangement	
11	DC compound Motor 2 HP, 220 Volts screen protected with suitable four point starter with mechanical braking arrangement	
12	Speed control set for speed control of DC shunt motor by ward leonard method (voltage control)	
13	Variable resistance loads (different values) Tubular Rheostate	
14	DC Ammeters (various Ranges)	
15	DC Voltmeters (Various Ranges)	
16	Dynamometer type Wattmeters (Various Ranges)	
17	Coils for Winding	
18	Cables Wires	
19	High voltage DC power supply with digital meter 0-33V/500V DC - 100mA, 1A, 2A	
20	DC regulated Power supply with Digital meter 0-30V, 2, 5, 10, 20, 25 amp	

**[4] CONTROL SYSTEM LAB**

<b>SL. NO.</b>	<b>NAME OF THE EQUIPMENT</b>	<b>REMARKS</b>
01	DC Servomotor	
02	Amplidyno	
03	Stepper motor	
04	A.C. Position Servomechanism	
05	Transient Response of First order network trainer	
06	Transient Response of second order network trainer	
07	Bode-Plot Trainer	
08	C.R.O.	
09	Computer with mat lab software	
10	ON-OFF temperature control system model	

**[5] ELECTRICAL MACHINE LAB**

<b>SL. NO.</b>	<b>NAME OF THE EQUIPMENT</b>	<b>REMARKS</b>
01	Single phase two winding Transformer-3KV	
02	3- $\phi$ Auto Transformer - 05 KVA	
03	3- $\phi$ Induction Regulator-square	
04	3- $\phi$ Induction motor (3 HP)	
05	D.O.L. Starter	
06	Star Delta Starter	
07	Auto transformer Starter	
08	3- $\phi$ 5 KVA Alternator	
09	Synchronous motor- 3 HP	
10	3- $\phi$ Synchronous Capacitor	

[6] ELECTRICAL WORK SHOP PRACTICE

SL. NO.	NAME OF THE EQUIPMENT	REMARKS
01	Tools Kit (with screw drivers, Tweezer, Aligners, Spanners Tester, Logic Indicator, Stripper, Cutter, Plier	
02	Soldering & Desoldering Stations Equipment	
03	Earth Persistence tester	
04	Electric Iron, Room heater, electric toaster, Water heater, Electric Kettle, Electric Oven, Ceiling fan, Table fan, Fan regulator, Alarm bell for dismantling repairing, assembling and testing purpose	
05	Lamination plates for assembly of small transformer cores	
06	Small battery charger for assembly and study purpose	
07	Armature core for armature winding of 3- $\phi$ induction motor	
08	Armature core for armature winding of car Dynamo	
09	5A and 15A sockets	
10	Distribution boarders	
11	5A switches, micro switches sockets and wiring accessories (ceiling rose, Holders, junction boxer) pipes for various types of wiring	
12	Florescent tube light set with choke	
13	Alarm and indicating Relays indicating lights for wiring and testing	
14	Cables & Wires	

[7] **ELECTRONICS & MICROPROCESSOR LAB**

SL. NO.	NAME OF THE EQUIPMENT	REQUIREMENTS	REMARKS
01	Logic Trainer kit for Truth Table Verification of (A) AND Gate (B) OR Gate (C) NAND Gate (D) NOR Gate (E) EX-OR Gate	02 02 02 02 02	
02	Study kit of 8085 based microprocessor kit Study kit of 8086 based microprocessor kit	02 02	
03	Study kit of D-Flip Flop	02	
04	Study Kit of T-Flip Flop	02	
05	Burglar's Alarm for Assembling and Testing	02	
06	PNP and NPN Transistors	50	
07	P-N Diodes	50	
08	Frequency meter	04	
09	A.C. Milli Ammeters (Different Range)	05	
10	A.C. Voltmeters (Different Range)	05	
11	Dynamo meter type wattmeters (Different Range)	05	
12	Inter facing of A/D Converter (ADC 0800)	01	
13	LED Display for Display of Alphabetic & Numeric characters	01	
14	Cable & Wires	-	
15	(a) Transistor Characteristics apparatus (b) SCR Characteristics apparatus (c) FET Characteristics apparatus (d) P.N. Junction Diode Characteristics apparatus (e) UJT Characteristics (f) Mos Fet Characteristics apparatus		