

VIDYA JYOTHI INSTITUTE OF TECHNOLOGY HYDERABAD

II Year B.Tech. ECE I-Sem

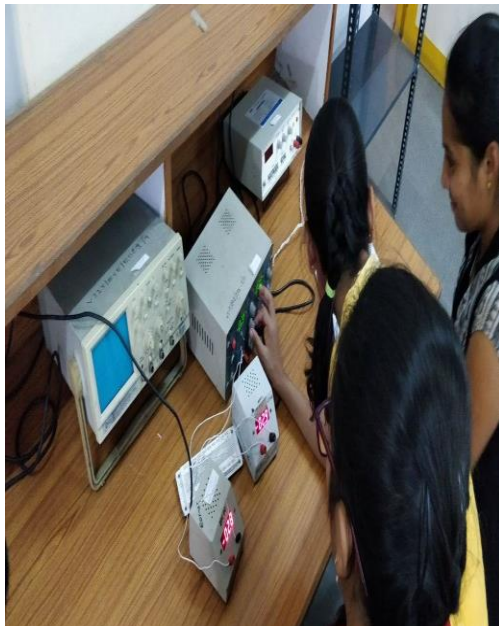
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ELECTRONIC DEVICES AND CIRCUITS LAB

Course Outcomes:

A13481	Course Outcomes
1	To Identify and use the basic components of basic components of electronics laboratory
2	To understand and use the basic instrument of the laboratories used in measurements
3	To Understand and show the characteristics and applications of Diode
4	To identify and produce the characteristics and applications of transistors



List of Experiments:

PART A: (Only for Viva-voce Examination)

Electronic Workshop Practice (In 3 Lab Sessions):

1. Identification, Specifications, Testing of R, L, C Components (Color Codes), Potentiometers, Switches (SPDT, DPDT, and DIP), Coils, Gang Condensers, Relays, Bread Boards, PCB's
2. Identification, Specifications and Testing of Active Devices, Diodes, BJT's, Low power JFET's, MOSFET's, Power Transistors, LED's, LCD's, SCR, UJT.
3. Study and operation of
 - a. Multimeters (Analog and Digital)
 - b. Function Generator
 - c. Regulated Power Supplies
 - d. CRO.

PART B: (For Laboratory Examination – Minimum of 10 experiments)

1. Forward & Reverse Bias Characteristics of PN Junction Diode.
2. Zener diode characteristics and Zener as voltage Regulator.
3. Half Wave Rectifier with & without filters.
4. Full Wave Rectifier with & without filters.
5. Input & Output Characteristics of Transistor in CB Configuration and h-parameter calculations.
6. Input & Output Characteristics of Transistor in CE Configuration and h-parameter calculations.
7. FET characteristics.
8. Lissajous patterns using CRO
9. Frequency Response of CC Amplifier.
10. Frequency Response of CE Amplifier.
11. Frequency Response of Common Source FET amplifier .
12. SCR characteristics.
13. UJT Characteristics

Equipment:

Regulated power supply (0-30V)	24
DC volt meter(0-20V)	38

DC volt meter(0-50V)	5
DC volt meter(0-100V)	5
DC micro Ammeter(0-10uA)	4
DC micro Ammeter(0-200uA)	20
DC milli Ammeter(0-1mA)	5
DC milli Ammeter(0-10mA)	5
DC milli Ammeter(0-200mA)	38
Multimeters	24
Transformer(12-0-12V)	24
CRO (0-20MHz)	24
Function Generators (1Hz - 1MHz)	24
Decade Resistance Box	24
Decade Capacitance Box	24
PN Junction Diode(IN4007)	48
Zener Diode	24
BJT(BC 107)	24
UJT (2N2646)	24
JFET(BFW11)	24
Resistors	48
Capacitors	48
SCR	24
Bread Boards	24