

Department: Electronics and Communication Engineering

**BASIC ELECTRONICS ENGINEERING LAB**  
**(BEC-151/251)**  
**LIST OF EXPERIMENTS**  
**(As per AKTU Syllabus)**

1. Study of various types of Active & Passive Components based on their ratings.
2. Identification of various types of Printed Circuit Boards (PCB) and soldering Techniques.
3. Soldering shop: Soldering and disordering of Resistor in PCB. Soldering and disordering of IC in PCB. Soldering and disordering of Capacitor in PCB.
4. Study of Lab Equipments and Components: CRO, Multimeter, and Function Generator, Power supply- Active, Passive Components and Bread Board.
5. P-N Junction diode: Characteristics of PN Junction diode - Static and dynamic resistance Measurement from graph.
6. Applications of PN Junction diode: Half & Full wave rectifier- Measurement of  $V_{rms}$ ,  $V_{dc}$ , and ripple factor.
7. Characteristics of Zener diode: V-I characteristics of Zener diode, Graphical measurement of forward and reverse resistance.
8. Characteristic of BJT: BJT in CE configuration.
9. To study Operational Amplifier as Adder and Subtractor.
10. Verification of Truth Table of Various Logic Gate.
11. Implementation of the given Boolean function using logic gates in both SOP and POS forms.

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LIST OF EQUIPMENT

S. No.	Name of Equipment
1	CRO with Probe.
2	Function Generator
3	Digital Multimeter (DMM)
4	Bread Board
5	Soldering Equipment
6	Transformer Centre Tapping
7	Diode
8	Zener diode
9	Regulated power supply
10	IC bread board trainer
11	Digital trainer kit
12	Transistor NPN
13	Connecting leads
14	Active and passive components (Diode, Transistor, Resistance , Capacitance)