

## CHAPTER - 1

### Short Questions (2 Marks)

1. Define electronics. state its uses.
2. What are the functions of electronics.
3. What is electron emission. Mention its types.
4. What is surface barrier?
5. What is work function?
6. Define Intrinsic and Extrinsic Semiconductor.
7. What is doping?
8. Define PN-junction.
9. Draw the Symbol of PN-junction diode.
10. What is LED?
11. What is an IC? state its uses.
12. What is Zener Diode? Draw its Symbol.
13. What is PIV?

### LONG QUESTIONS (5 Marks)

1. Classify solids according to electrical conductivity & explain with respect to its energy band diagram.
2. Differentiate between Intrinsic & Extrinsic Semiconductor.
3. Differentiate between vacuum tube & Semiconductor.
4. Explain principle of working of PN-junction diode. Draw its VI-characteristics. state its uses.
5. Briefly explain about LED.
6. Briefly explain IC. state its advantages & disadvantages.
7. State & explain Zener Diode.

## CHAPTER - 2

### Short Questions (2 Marks)

1. Define Rectifier. State its uses.
2. Define filter. Mention its types.
3. Define Transistor.
4. Draw the symbol of PNP & NPN transistor.
5. What is transistor biasing?
6. Define Oscillator & classify it.

### Long Questions (5 Marks)

1. Explain working principle of half wave Rectifier.
2. Explain working principle of full wave rectifiers with merits & demerits.
3. Explain working of different types of filter circuits.
4. With neat block diagram explain unregulated DC power supply system.
5. Explain working principle of PNP & NPN transistor.
6. Why common mode connection in transistor is required. Explain CB, CE, CC configuration.
7. Explain different types of biasing.
8. Explain working principle of single phase CE amplifier.
9. With simple block diagram explain basic oscillator.

## CHAPTER - 3

### Short Questions (2 Marks)

1. Define Modulation. Mention its types.
2. Define Demodulation or Detection.

### Long Questions (5 Marks)

1. With neat block diagram explain basic communication system.
2. State difference between Modulation & Demodulation.
3. Explain AM, FM & PM with the help of signal wave, carrier wave & modulated wave.

## CHAPTER - 4

### Short Questions (2 Marks)

1. Define Transducer. Mention its types.
2. What is active & passive Transducer?
3. What is Multimeter? State its uses.
4. Define CRO.

### Long Questions (5 Marks)

1. Differentiate between Transducer & Sensor.
2. Explain working principle of photovoltaic transducer. State its application.
3. Differentiate between Analog & Digital Multimeter.
4. With basic block diagram explain working principle of Multimeter.
5. With the help of simple block diagram explain working principle of CRO.