BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY

QUESTION BANK

Unit Test-II (Shift:-I & II)

Program: - ME3I

Semester: - III **Course:- BASIC ELECTRICAL & ELECTRONICS ENGINEERING(22310)**

CHAPTER 9 BIPOLAR JUNCTION TRANSISTOR

Question For 2 Marks

1) Draw the symbols & label the terminals of : a) NPN transistor. b) PNP transistor.

2) State input & output terminals in CB & CE configuration of BJT.

3) Draw symbol & label the terminals of : a) FET. b) BJT.

4) State different biasing conditions of BJT.

5) Define alpha & beta of transistor.

Question For 4 Marks

1) Draw & explain the transistor as a switch.

2) Draw the symbol of PNP transistor & explain its working.

3) Compare CB & CE configuration for BJT.

4) Define alpha & beta of transistor. State relationship between them.

5) Describe the working of transistor (BJT) as an amplifier.

6) Explain thermal runway.

7) Explain the working of CE configuration.

CHAPTER 8 DIODE CIRCUITS & REGULATED POWER SUPPLY

Question For 2 Marks

1) Define rectifier.

2) What is rectifier. How are they classified?

3) Define ripple factor & efficiency.

4) Define load regulation. Give formula.

5) Name the different types of filters used in rectifier.

Question For 4 Marks

1) Draw the circuit diagram & explain the working of half wave rectifier.

2) Draw the circuit diagram & explain the working of full wave rectifier.

3) Draw the circuit diagram & explain the working of bridge wave rectifier.

4) Compare half, full & bridge wave rectifier.(4 points)

5) Draw block diagram of regulated power supply. State function of each block.

6) Draw LC filter with full wave rectifier. Also draw its waveform.

7) Draw CLC filter with full wave rectifier. Also draw its waveform .

8) Draw L filter with full wave rectifier. Also draw its waveform.

9) Draw C filter with full wave rectifier. Also draw its waveform.

10) Define load regulation & line regulation.

CHAPTER 7 SEMICONDUCTOR DIODE

Question For 2 Marks

1) Draw symbols of LDR & DIODE.
2) Draw symbols of Zener diode & UJT
3) List specifications of diode.
4) State applications of a PN junction diode.
5) State applications of a Zener diode.

Question For 4 Marks

1) State working principle of LED. Give two applications.

2) Draw & explain the characteristics of Zener diode with circuit diagram.

3) Explain avalanche breakdown of PN junction.

4) Explain the term potential barrier & depletion region in case of PN junction diode.

5) Sketch V-I characteristics PN Junction diode.

CHAPTER 6 ELECTRONIC COMPONENTS & SIGNALS

Question For 2 Marks

1) List types of fixed resisters.
2) List types of variable resisters.
3) List types of fixed capacitor.
4) List application of variable capacitor.
5) Define inductance.

Question For 4 Marks

1) Explain the color code for resistance value.

2) List specifications for capacitor.

3) Draw & explain the construction of air core inductor.

4) What is active & passive components.

5) Define the following term related with an AC quantity:

a) Waveform b) Frequency

c) Amplitude d) Time period

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