QUESTION BANK ON BASIC ELECTRONICS ENGINEERING

(COMMON FOR ALL ENGINEERING BRANCH 1st YEAR)

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QUESTION BANK OF

Basic Electronics

1. ELECTRONIC DEVICE

1. Define Electronics & its application.

2. Define work function.

3. Define Electronic Emission & different types of Emission.

4. Explain Conductor, Semiconductor & Insulator with respect to energy band diagram only.

5. Define doping.

6. Define energy gap & valence electrons.

7. Discuss Intrinsic Semiconductor.

8. Discuss Extrinsic Semiconductor.

9. Define accepter & donor atom.

10. List different types of Impurity.

11. Explain the difference between vacuum tube & semiconductor.

12. State basic concept of integrated circuits (I.C) & its use.

13. Explain P-type and N-type semiconductor junction.

14. Define PN junction Barrier voltage, depletion region, Junction Capacitance.

15. Draw forward biased & reversed biased junction Diode.

16. Draw symbol, circuit diagram for characteristics (Forward & reversed) Characteristics PN junction diode.

17. Explain Construction (reference to doping level), Symbol, circuit diagram for characteristics (forwarded & reversed) of Zener Diode.

18. Explain Avalanche &Zener breakdown and its comparison.

19. Explain Construction, Symbol, circuit diagram for characteristics of LED.

2. ELECTRONIC CIRCUITS

1. Define rectifier.

2. Draw the circuit of centre tap FWR & Bridge FWR.

3. State different types of filters .

4. Define ripple & ripple factor.

5. Define rectifier efficiency.

6. What is a transistor ?

7. State different types of transistor configurations.

8. State relation between α & β and β & γ.

9. State the need of biasing & name different types of biasing.

10. What is DC regulat ? or Explain need of regulators.

11. Define Concept of amplification

12. Explain Single stage CE amplifier with voltage divider biases its explanation.

13. Define oscillator.

14. Explain working of basic Oscillator with simple block diagram.

3. COMMUNICATION SYSTEM

1. Define communication system?

2. Define Transducer?

3. What are the basic constituents of a communication system?

4. What is meant by the term Channel as applied to a communication system?

5. What is Modulation?

6. Explain different type of modulation?

7. Explain the difference between modulation and demodulation?

8. Draw the block diagram of a communication system and explain the function of each block?

4. TRANSDUCERS AND MEASURING INSTRUMENTS

1. Define Transducer?

2. What are the type of Transducer?

3. Write difference between Transducer and Sensor?

4. Write difference between Active and Passive Transducer?

5. What is Multimeter?

6. Write two application of Multimeter?

7. Write short notes on Photo-Emission transducer?

8. Write difference between Analog and Digital Multimeter?

9. Explain working principle of photo emissive, photoconductive, photovoltaic transducer?

10. Explain working principle of Multimeter with Basic Block diagram?

11. What is CRO & Explain working principle of CRO with simple Block diagram?