Question Bank (I Scheme)

Course: - ELECTRONICS ENGINEERING MATERILS
Subject code 22217 Unit Test: II

Program: - EJ2ISemester: - II

CHAPTER 4 :- SEMICONDUCTOR MATERIAL (marks-12)

Question for 2 marks

1] What is effect of adding impurity on the resistance of a semiconductor?

2] Define forbidden energy band.

3] what is meant by tetravalent element ?give two examples.

4] Define the following terms:1]Doping 2]Dopant.

5] Define:1] donor impurity 2] acceptor impurity

6] State Einstein's relation.

7] State various package materials and their applications.

Question For 4 Marks

1] Draw the energy band diagram explain the energy levels in a hydrogen molecule with six atoms.

2] Explain clearly how the conduction take place in an intrinsic semiconductor.

3] Explain the concept of donor and acceptor impurities along with their examples.

4] Explain energy band diagram of N-type semiconductor.

5] Describe energy band diagram P-type semiconductor.

6] Describe the conduction taking place in N-type semiconductor.

7] Compare intrinsic and extrinsic semiconductors.

8] Explain the effect of temperature on the conductivity of impurity type semiconductors.

9] Explain mechanism of drift current.

10] Write a short note 0n: Hall Effect.

CHAPTER 5 :- MICROELECTONIC COMPONENT AND SPECIAL MATERIALS .

Question for 2 marks (marks-08)

1] Define the term photoemission.

2] Define Dark current.

3] Define electroluminescence.

4] State various materials used to produced LASER.

5] State any four characteristics of flexible and wearable antenna.

6] What are the types of micromotor?

7] Define a switch.

8] What is a microswitch? State its typical dimension and weight.

Question for 4 marks

1] Define and explain the following terms related to photoemission.

1] Quantum efficiency 2] Sensitivity

2] Explain the concept, basic process and types of electroluminicscene.

3] Explain the term photovoltaic material.

4] Explain flexible and wearable antennas and state their characteristics.

5] Write the note on substrate materials for F & W antennas.

6] What are micromotors? state their features and type.

7] Explain electrostatic micromotor.

8] Explain the construction and operation of piezoelectric micromotor.

9] State the requirement of micro-relays and draw their configuration.

10] Describe the polymer based F & W antennas.

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