BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY

Question Bank (I-Scheme)

Name of subject: Basic Electronics Unit Test :II
Subject code: 22216Course : EJ

Semester: II

CHAPTER-3 (Bipolar Junction Transistor)

(2Marks)

1. List any two BJT biasing circuits with respect to operating point.
2. Explain the need of stabilization of Q point.

(4 Marks)

3. Draw the DC load line for transistor and locate Q-point on it.
4. Draw and explain fixed bias circuit.
5. Draw voltage divider biasing. Give its advantages over other biasing method.

CHAPTER-4(Junction Field Effect Transistor)

(2 Marks)

6. Sketch the symbol of p-channel and n-channel depletion type MOSFET.
7. State different methods of biasing of FET.
8. Sketch the symbol of p-channel and n-channel Enhancement type MOSFET.

(4Marks)

9. A JFET has IDss = 10 mA, VP = —5 volts, gmo = 2 ms. Calculate the trans-conductance and drain current of the JFET for VGs = —2.5 volts.
10. Draw the constructional details of n-channel D-MOSFET. State its working principle.
11. Explain drain characteristics of JFET with ohmic region, saturation region, cut-off region and break down region.
12. Draw and Explain N-Channel JFET.
13. Derive relation between μ,gm and rd.

CHAPTER-5(Regulators and Power Supply)

(2 Marks)

14. Define line regulation. State the formula for its regulation.
15. Define load regulation. State the formula for its regulation.
16. Define voltage regulator. State need of voltage regulator.

(4Marks)

17. Explain basic block diagram of regulated DC power supply, draw its input and output waveforms.
18. Draw and explain the circuit diagram for transistorized series regulator.
19. Describe the working of zener as a voltage regulator.
20. Draw and explain the circuit diagram for transistorized shunt regulator.

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