



- Q.3 The rectification efficiency of half wave rectifier \_\_\_\_\_.
- a) 40.6%                      b) 42.6%
- c) 45.6%                      d) None of the above
- Q.4 Minority carries in N type semiconductor is \_\_\_\_\_
- a) Holes                      b) Electrons
- c) Both                      d) None
- Q.5 Most widely used transistor configuration is \_\_\_\_\_
- a) Common collector    b) Common emitter
- c) Common base            d) None of the above
- Q.6 The ideal value of stability factor is \_\_\_\_\_
- a) 1                      b) 0
- c) infinite                      d) None

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Define conductors.
- Q.8 What is clipping circuit.
- Q.9 Expand FET.

- Q.10 What is transistor?
- Q.11 What is drift current
- Q.12 What are minority carriers in N type semiconductor.

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain four differences between insulators and semi-conductors.
- Q.14 Explain VI characteristics of diode.
- Q.15 Explain shunt capacitor filter and LC filter.
- Q.16 Explain the concept of Junction Capacitance in forwards and reverse biased conditions.
- Q.17 Explain Zener Breakdown.
- Q.18 Explain Single Stage transistor amplifier circuit.
- Q.19 What are various champing circuits. Explain in brief.
- Q.20 Explain input and output characteristics in CB Configuration.
- Q.21 Explain the operation & characteristics of MOSFET in Enhancement mode.
- Q.22 Explain the concept of DC load line

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