

Roll No.

Total Pages : 3

716/MH

C-2050

ELECTRONICS-II

Semester - VI

Time Allowed : 2 Hours]

[Maximum Marks : 30

Note : Attempt any four questions. All question carry equal marks.

1. What do you understand by Thyristor ? Discuss construction, working and (V-I) characteristics of a triac.
2. (i) Explain the working of UJT with help of labelled equivalent circuit. Discuss the various parameter of UJT.

(ii) Discuss the UJT as relaxation oscillator.

3. (i) Discuss thermistor. What are its types ? Explain resistance-temperature characteristics of thermistor.

(ii) Give the four difference between thermocouple and thermistor.
4. Discuss the construction, working and characteristics of PIN diode. Give its applications.
5. Describe the working and analysis of an emitter follower using its circuit and equivalent circuit diagram.
6. Explain the working and derive an expression for voltage gain for common source FET amplifier using circuit diagram and equivalent circuit.
7. Define stability factor. Explain the fixed bias and derive expression for its stability factor.
8. Explain working of CE amplifier. Derive the expression for current gain, voltage gain and input

resistance using equivalent circuit in terms of h-parameter for CE amplifier.

9. Attempt any five parts :

- (i) What is satellite valley in Gunn diode ?
- (ii) What is meaning of negative resistance ? In which type of diode is its shown ?
- (iii) What is a tunnel diode ? Explain.
- (iv) Give h-parameter of a CE transistor.
- (v) Explain domain formation in Gunn diode.
- (vi) What is IMPATT and TRAPATT ?
- (vii) Why DIAC is used to trigger SCR ?