Roll No. ..... Total Pages : 2

BT-3/D-21 **43087**

ELECTRONIC DEVICES

Paper-ECE-203-N

Time : Three Hours] [Maximum Marks : 75

Note : Attempt *five* questions in all, selecting at least *one* question from each unit.

UNIT–I

1. Write short note on :

(a) Carrier Drift.

(b) Carrier Diffusion.

(c) Mobility and Resistivity.

(d) Hall Effect. (15)

2. Write short note on :

(a) Space charge width.

(b) Depletion and Diffusion Capacitance.

(c) Small signal model of PN Junction diode. (15)

UNIT–II

3. Draw and explain the operative principle of BJT. Explain the relation between output and input current of BJT for common base, common emitter and common collector configuration. (15)

4. Draw and explain H parameters and PI model of CE Transistor. (15)

UNIT–III

5. With help of neat sketches and characteristics explain the operation of junction FET. (15)

6. Write short note on :

(a) Two terminal MOS structure.

(b) Basic MOSFET operation and its small signal model. (15)

UNIT–IV

7. With neat sketch explain the working of Op-Amp Series voltage regulator. (15)

8. Write short note on complete power supply and SMPS. (15)

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