Roll No. ..... Total Pages : 02

BT-3/D-19 33087

ELECTRONIC DEVICES
ECE-203-N (Opt. I)

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 notes on the following :
   (a) Carrier Drift
   (b) Carrier Diffusion
   (c) Mobility and Resistivity
   (d) Hall Effect. **15**

2. With construction and working principle explain V-I Characteristics of Tunnel diode and schottky 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. Write short notes on the following :
   (a) Base width modulation
   (b) Current crowding
   (c) Ebers moll model. 15

Unit III

5. What is MOSFET ? Explain the construction and characteristics of N channel MOSFET with suitable diagram. 15

6. Write short notes on the following :
   (a) Pinch off voltage
   (b) Channel length modulation
   (c) Velocity saturation effect. 15

Unit IV

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

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

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