



**ET 3005**

**III Semester B.Tech. in Electronics & Tele Communication Engg.  
Examination, August 2011  
ELECTRONIC CIRCUITS – I**

Time : 3 Hours

Max. Marks : 75

*Instruction : Answer any five questions from Part – A, and Part – B.*

**PART – A**

Answer any five questions :

**(5×5=25)**

1. Describe about electrostatic pump.
2. Write the formulas of the pressure and force at the open edges of the different types of capacitor.
3. What is Ionization ? How can you estimate the ionization energy ?
4. Explain the role of ceramics in semiconductor processing.
5. Explain the SIC diodes.
6. Write the optical and electrical properties of LED's.
7. Explain the types of transistor.
8. Write the advantages and disadvantages of relays.

**PART – B**

Answer any five questions :

**(5×10=50)**

9. Explain the energy band structure with neat sketches.
  10. Give an account on semiconductors.
  11. Discuss about P-N junction.
  12. Write a short note on i) Density of states ii) Density of electrons.
  13. Give an account on LED.
  14. Explain the structure and characteristics of JFET.
  15. Discuss briefly about MOSFET technology.
  16. Explain the construction, operation and characteristics of UJT with neat sketch.
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