

MODEL QUESTION PAPER

Time: 3 Hrs.

Max.Marks:100

[Note : PART - A : Answer all questions. Each question carries 3 marks.
PART - B : Answer either A or B. Each question carries 14 marks.]

Part-A**10 x 3 = 30 Marks**

1. What are Filters?
2. Differentiate between Zener breakdown and Avalanche breakdown
3. Compare BJT and FET
4. Draw the symbol of UJT.
5. State the condition for Oscillation.
6. What are the various types of negative feedback connections?
7. Draw the symbol of SCR and TRIAC.
8. Explain the layered structure of DIAC.
9. What is a clipper? Give its types.
10. What is a tripler? Explain.

Part-B**5 x 14 = 70 Marks**

11. A. i) Explain the working of Zener diode in reverse bias.
Draw its VI characteristics. 7
- ii) Explain the working of LED. Draw its VI characteristics. 7
- OR
- B. i) Explain the working of photo diode and draw its VI characteristics. 7
- ii) Explain the working of Zener diode voltage regulator. 7
12. A. i) Explain the working of common emitter Transistor as a switch. 7
- ii) Explain the working of FET and draw its drain characteristics. 7
- OR
- B. i) Explain the working of UJT relaxation oscillator.
Draw its output waveform. 7
- ii) Compare FET and BJT. 7

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13. A. i) What are the effects of negative feedback? 7
ii) Draw the circuit diagram in which current series feedback is introduced. Indicate in which place negative feedback is introduced? 7

OR

- B. i) Explain the working of RC phase shift oscillator. 7
ii) Draw the circuit diagram and frequency response curve of RC coupled amplifier. 7

14. A. i) Explain the working of SCR and draw its VI characteristics. 7
ii) Explain the working of DIAC and draw its VI characteristics. 7

OR

- B. i) Explain the working of TRIAC. Draw its VI characteristics. 7
ii) Explain transistor analogy of SCR. 7

15. A. i) Explain the working of Schmitt trigger. Draw its input and output waveforms. 7
ii) Explain the working of Astable Multivibrator. 7

OR

- B. i) Explain the working of Biased Clipper and draw its output wave-forms. 7
ii) Explain the working of Voltage doubler and draw its output waveform. 7