

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

EX-304 (Old)

B.E. III Semester

Examination, December 2016

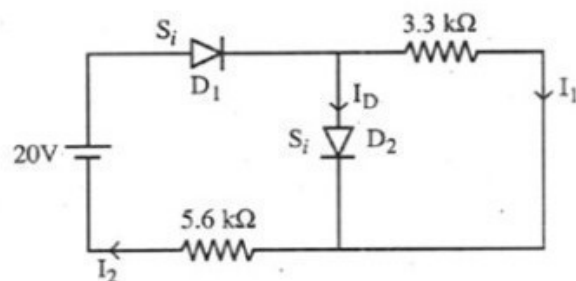
Electronic Devices and Circuits - I

Time : Three Hours

Maximum Marks : 70

- Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Determine the currents I_1 , I_2 and I_D for the network shown below. 7



- b) Differentiate between half wave and full wave centre tap rectifier. 7
2. a) Elaborate the working of clipper and clamper circuits with the help of neat diagrams. 7
- b) Write short note on any two of the following : 7
- Zener Diode
 - Tunnel Diode
 - LCD

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3. a) Explain the working of a JFET and give its characteristics curve. 7
- b) Discuss features of Depletion-type MOSFET. 7
4. a) Explain the concept of early effect in CB configuration of BJT. Is two back to back diodes can work as transistor? Give reason to support your answer. 7
- b) Discuss the h parameter analysis of CC, CE and CB configurations of transistors at low frequency. 7
5. a) Explain the principle of Bootstrapping and give its advantages. 7
- b) Explain the analysis of low frequency response of RC coupled amplifier in CE configuration. 7
6. a) Describe general characteristics of negative feedback amplifier and also discuss the effect of feedback on amplifier characteristics. 7
- b) Draw and explain the circuit diagram of Darlington amplifier. 7
7. a) Draw the circuit diagram of RC phase shift oscillator and explain its operation. 7
- b) Explain the working of class A push pull amplifier with circuit diagram. Also list the advantages of power amplifier. 7
8. Write short notes on any two of the following : 14
- Cross-over distortion and harmonic distortion
 - Single tuned and double tuned voltage amplifiers
 - UJT
 - Schottky diode
