

Roll No .....

**CS/IT - 304**

**B.E. III Semester**

Examination, December 2016

**Electronics Devices and Circuits**

*Time : Three Hours*

*Maximum Marks : 70*

*Note:* Attempt any five questions. All questions carry equal marks.

- 1. a) Explain construction, features and applications of Zener diode. 7
- b) Explain the applications of p-n diode in our life. 7
- 2. a) Differentiate negative and positive feedback. 7
- b) Differentiate class A, class B and class C amplifiers. 7
- 3. a) Draw and explain RC phase shift oscillator. 7
- b) Draw and explain monostable multivibrator. 7
- 4. a) Draw and differentiate clipper and clamper circuit. 7
- b) What is operational amplifier? Write its characteristics. 7
- 5. a) Draw inverting and non-inverting amplifier and write equation for gain. 7
- b) Draw and explain integrator circuit using Op-Amp. 7
- 6. a) Define slew rate and CMRR. 7
- b) Explain the concept of Boot strapping and Darlington pair. 7

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- 7. a) Explain how a Zener diode can be used as a voltage regulator. 7
- b) Write a short note on UPS. 7
- 8. Write short notes on any two : 14
- a) SMPS
- b) 555 timer
- c) Log amplifier
- d) LED

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