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Roll No

EC-223 (CBCS)

B.E. III Semester

Examination, December 2017

Choice Based Credit System (CBCS)

Electronic Devices and Circuits

Time : Three Hours

Maximum Marks : 60

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

1. a) Explain the principle of Hall effect.
b) Discuss the principle working of zener diode and tunnel diode.
2. a) Discuss the principle working of LED and photo diodes.
b) Discuss the construction, basic operation and input output characteristic of BJT.
3. a) Discuss the working of BJT as an amplifier.
b) Discuss about the various methods of biasing transistor.
4. a) Discuss the selection of operating point, bias stabilization and thermal runaway in respect to transistor.
b) Discuss the working of transistor as a switch.

5. a) Discuss the small signal analysis of an amplifier using hybrid model.
b) Discuss the principle working of Darlington amplifier and cas-code amplifier.
6. a) Explain the working of class AB amplifier. Also calculate the percentage efficiency.
b) Discuss the principle working of push pull amplifier.
7. a) Discuss the construction and working of JFET.
b) Discuss the construction and working of DIAC and TRIAC.
8. Write short notes on any two of the following:
 - a) Ebers-Moll model
 - b) Boot strapping techniques
 - c) UJT
