B.Tech. DEGREE EXAMINATION,
NOVEMBER/DECEMBER 2016.

Third Semester

Computer Science and Engineering

ELECTRONIC DEVICES AND CIRCUITS

(2013–14 onwards)

Time : Three hours　　　　　　　　Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1.　What is diode?

2.　Define clampers.

3.　What is meant by Fixed bias?

4.　Difference between JFET and MOSFET.

5.　What is RC coupled amplifier?

6.　Define feedback.

7.　What is meant by differentiator?

8.　What are the characteristics of op-amp?

9. What is intrinsic standoff ratio?

10. State varactor diode.

PART B — (5 × 11 = 55 marks)

Answer ALL questions, ONE from each Unit.

All questions carry equal marks.

UNIT I

11. (a) Explain the characteristics and operations of Zener Diode. (6)

    (b) What are the applications of diode? (5)

Or

12. Explain in detail about Series and shunt voltage regulators. (11)

UNIT II

13. Discuss the construction and operation of MOSFET. (11)

Or

14. (a) Explain in detail about Transistor modeling. (6)

    (b) Describe the important parameters of BJT. (5)

UNIT III

15. Explain the characteristics and the operation of Wien bridge oscillators. (11)

Or

16. Explain the operation and types of power amplifier with the circuit diagram. (11)

UNIT IV

17. Explain in detail about inverting and non-inverting amplifier of op amp. (11)

Or

18. (a) What is the use of analog multiplier? Explain briefly.

    (b) Explain the differential and common mode operation of op amp. (5)

UNIT V

19. Explain the characteristics and the circuit of UJT. (11)

Or

20. Compare and contrast DIAC and TRIAC's operation. (11)