D 12625 (Pages : 2) Name.....

Reg. No.....

FIRST SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2021

(CBCSS)

Electronics

ELE 1C 01—ELECTRONIC DEVICES

(2021 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

1. Differentiate with active and passive devices.
2. What is base spreading resistance ?
3. Explain different types of relays.
4. What is a photodiode ?
5. What is an unbiased transistor ?
6. Explain about intrinsic semiconductors.
7. Explain the structure of MOSFET.
8. Explain intrinsic standoff ratio.
9. What is a transistor ? Give its applications.
10. Mention the applications of JFET.
11. Define thermal run away.
12. Differentiate between bipolar and uni-polar devices.

(8 × 3 = 24 marks)

Turn over

Section B

Answer at least **five** *questions.*

Each question carries 5 *marks.*

All questions can be attended.

Overall Ceiling 25.

13. Explain the current gain of a transistor in CE configuration.
14. Briefly explain about different types of resistors.
15. Compare between BJT and JFET.
16. What are the JFET parameters? Explain them.
17. Explain the operation of LDR.
18. With the help of energy band theory, define conductors, insulators and semi-conductors.
19. Explain about the leakage current concept in the common base BJT.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*

The question carries 11 *marks.*

20. Explain about PN junction diode. Draw its symbol and V-I characteristics.
21. Explain the working of UJT as a relaxation oscillator.

(1 × 11 = 11 marks)