

D 73149

(Pages : 2)

Name.....

Reg. No.....

FIRST SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2019

(CUCBCSS—UG)

Electronics

ELE 1C 01—ELECTRONIC DEVICES

Time : Three Hours

Maximum : 64 Marks

Part A

Answer all questions.

Each question carries 1 mark.

1. Record the resistance and tolerance of the resistor with the colour code: Red, Red, Green, Gold.
2. Unit of resistance.
3. Draw the symbol of a ferrite-core inductor.
4. Material used for the construction of LED.
5. Schematic symbol of a Zener diode.
6. Phase difference between the input and output voltages of a transistor connected in common emitter configuration.
7. Number of terminals for a MOSFET.
8. Number of valence electrons for pentavalent impurity.
9. Material used for making fuse wire.
10. Type of switch used for channel selection in television receivers.

(10 × 1 = 10 marks)

Part B

Answer all questions.

Each question carries 2 marks.

11. What are trimmers ?
12. List the applications of a thermistor.
13. What is a PCB ?
14. What are photo voltaic cells ?
15. Mention the applications of UJT.



Turn over

16. What are the different modes of operation of a transistor ?
17. Define amplification factor of JFET.

(7 × 2 = 14 marks)

Part C

*Answer any five questions.
Each question carries 4 marks.*

18. Explain the band theory.
19. Write short note on variable capacitors.
20. What are the applications of a potentiometer ?
21. Give short note on fuses.
22. Describe the different types of switches.
23. Explain the switching action of a transistor.
24. Compare JFET and MOSFET.
25. Explain the V-I characteristics of UJT.

(5 × 4 = 20 marks)

Part D

*Answer any two questions.
Each question carries 10 marks.*

26. Explain the operation of Zener diode with the aid of its V-I characteristics. What are its applications ?
27. Explain the constructional details and features of a transistor. Compare the three transistor configurations in terms of input resistance, output resistance, voltage gain, current gain and applications.
28. Explain the drain and transfer characteristics of JFET. What are the JFET parameters.
29. Explain the constructional features, principle of working, advantages and applications of LEDs and LCDs.

(2 × 10 = 20 marks)

