B–25

Roll No. .....

Total No. of Questions : 32] [Total No. of Printed Pages : 4

XIIARJKUT23

9125

ELECTRONICS

Time : 3 Hours] [Maximum Marks : 70

SECTION–A

1 each

1. Define Indirect Measurement.

2. What is Transponder ?

3. LDR is a .....Transducer.

4. Define Modulation Depth.

5. $(1100)_2$ is equal to decimal :

   (A) 13 (B) 12

   (C) 11 (D) 10

6. Which of the following is a primary memory ?

   (A) CDROM (B) EPROM

   (C) Hard Disk (D) Floppy Disk

7. Random error is defined as ..... .

8. Voltage is measured with ..... .

9 NOR is one among :

(A) Basic Gates

(B) Adder Gates

(C) Inverter Gates

(D) Universal Gates

10. Resolution is :

(A) Ability to detect highest change

(B) Ability to detect lowest change

(C) Ability to detect highest error

(D) None of these

11. Boolean expression for OR gate is .....

12. Define significant figures.

13 Write *two* main uses of optical scanner.

14. Write 1's complement of $(100110)_2$.

15. What is Read Only Memory (ROM) ?

SECTION–B 2 each

16. Define Percentage Error.

17 Write about the material coating used in CRT screen.

18. What is Gauge Factor ?

19. Define Bandwidth.

20. Write down expression EX-NOR gate.

21. Draw the logic circuit of 4 to 1 multiplexer.

22. What is Encoding ?

23. Define Computer Firmware.

SECTION–C

4 each

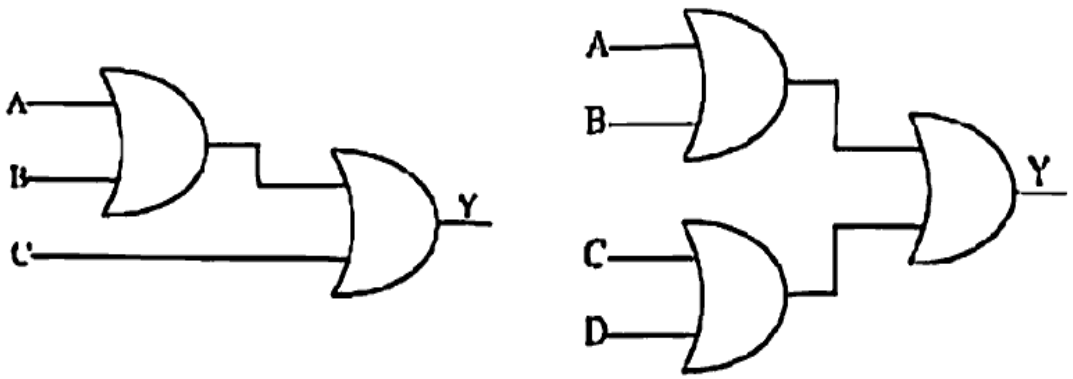
24. Briefly explain how PMMC can be converted to Ammeter.

25. Explain the classification of transducers.

26. Convert a decimal number to binary and octal systems.

27. Explain the working principle of a transducer.

28. Write the truth tables of the following logic circuits :



29. Briefly explain the classification of computer systems.

SECTION-D

5 each

30 Draw the logic circuits of Half Adder and Half Subtractor.

Or

Explain the circuit concepts of decoding and de-multiplexing.

31 Draw the block diagram of a Radio Receiver.

Or

Explain the importance of satellite technology in the modern electronic communication.

32. Define Frequency Modulation (FM) and explain the concept of sidebands.

Or

Explain nature of various frequency bands in electromagnetic spectrum.