MAY 2022 **U/ID 46501/UCC1A**

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is meant by Digital Computer?
2. Define BCD code.
3. What is minterm?
4. Define the term Boolean Algebra.
5. What are universal gates?
6. What are complementary system?
7. Define the three variable K-map?
8. What is map methods?
9. What is Shift Register.
10. What is multiplexer?
11. What is ROM?
12. What is meant by PLA?

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions each in 200 words.

13. Convert the following binary code to gray code.

    $(101101)_2 = (x)_G$

14. Explain the NOR gate as universal gate.

15. Explain Mc-Clausky Tabulation method.

16. Briefly explain the circuit diagram of JK FlipFlop.

17. Explain the Full Adder using NAND gate

18. Draw a circuit of Half subtractions with examples.

19. Briefly explain SRAM and DRAM.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Briefly Explain the Number system with examples.

21. Convert the Logical function of three variable

    F (A,B,C) = A + BC to standard pos expression.

22. Briefly explain four bit Input shift registers with tinning diagram.

23. Explain the design circuit of multiplexer.

24. Explain the design of ALU and their functions.

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