MAY 2022

P/ID 17602/ PCA1B/PCATB

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is meant by Logical operation? Give its types.

2. What is 1's complement and 2's complement?

3. Define the term XOR gate.

4. What is Subtractor?

5. What does BCD mean?

6. What is the job of JK flip flop?

7. What do you mean by Register?

8. What is the purpose of Scratch Pad memory?

9. State DeMorgan's theorem.

10. Define the terms Bit and Byte.

11. Convert the binary number 10100011 to decimal.

12. What is Accumulator?

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Explain in detail about Don't Care (X) Conditions in K-Maps.

14. Give short notes on Tabulation Method.

15. Brief on Combinational Circuit.

16. Write short notes on Counters.

17. Explain briefly about Processor Organization.

18. Elaborate on Instruction Sets.

19. Explain different logical operations.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Explain in detail about Karnaugh Map.

21. Describe the Classification and Programming of Read-Only Memory (ROM).

22. Explain in detail about the role of Shift Registers.

23. Elaborate on the design and functions of ALU.

24. Discuss on Instruction Execution Cycle.

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