DECEMBER 2021

P/ID 17602/ PCA1B/PCATB

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is Number system?

2. Expand the terms ASCII and EBCDIC.

3. What is the use of Don't care conditions?

4. Give the truth table for an half adder.

5. What is decoder?

6. What do you mean by triggering of flip-flop?

7. What is the difference between truth table and excitation table?

8. What are the uses of a counter?

9. Define the term ALU.

10. Name two special purpose registers.

11. What is the use of PC register?

12. What do you mean by multiprogramming and multitasking?

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Describe the properties of Boolean Algebra.

14. What are the universal gates? Explain them.

15. Explain ROM and its types.

16. Brief on the working of RS flip flop.

17. Write short notes on Ripple counter.

18. Discuss about bus organization.

19. Give a brief account on hardwired control.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Simplify using k-map method:

$F = (W, X, Y, Z) = \Sigma(2,3,12,13,14,15)$

21. Explain Multiplexer with a neat diagram

22. Explain the shift register with necessary diagram.

23. Describe the design of ALU.

24. Discuss how an instruction is executed.
