Time : Three hours   Maximum : 75 marks

SECTION A – (10 × 2 = 20 marks)

Answer any TEN questions

1. Specify the radix of Binary and Hexadecimal number systems.

2. Convert the Octal number (630.4) to Decimal number.

3. Define the term – Encoder.

4. Mention the use of Flip-flop.

5. Define the term – Synchronous Counter.

6. What is Instruction set in Microprocessor?

7. Define the term – Assembler.

8. What is Addressing mode?

9. Define the term – Stack memory.

10. Mention the use of Time delay in a Counter.

11. What are Vectored Interrupts?

12. Define – RAM.

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SECTION B – (5 × 5 = 25 marks)

Answer any FIVE questions

13. Express the Boolean function F = A'C + A'B + AB'C + BC in Sum of Minterms and find the minimal Sum of Products expression.

14. Explain the functioning of Multiplexer.

15. Describe the working of Shift register.

16. Discuss on the basic organization of Microprocessor with a neat diagram.

17. Explain the various Branch instructions in 8085.

18. Describe the method of designing Counter with Time delay.

19. Discuss on the concept of Memory-mapped I/O.

SECTION C – (3 × 10 = 30 marks)

Answer any THREE questions

20. Describe the functioning of Digital Logic Gates.

21. Explain the working of Ripple Counter in detail.

22. Write a detailed note on Data Transfer and Arithmetic instructions in 8085.

23. Discuss the concept of Subroutine in microprocessor using example.

24. Describe the functioning of 8085 Interrupts.

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