

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions. Each question carries 3 marks.

Each answer should not exceed 1 page.

1. What are the types of ROM?
2. Explain the basic operations of the computer.
3. What is the importance of cache memory?
4. What is an interrupt? What are types of interrupts?
5. What is the Instruction queue?
6. How to represents the numbers in floating point operations?
7. What are the advantages in micro programming?
8. Explain Distributed computing.

PART B — (4 × 15 = 60 marks)

Answer ALL questions. Each question carries 15 marks.

Answer ONE question from each Unit.

Each answer should not exceed 6 pages.

UNIT I

9. (a) Differentiate branching and Conditional codes.
(b) Explain all the types of addressing modes.

Or

10. (a) Explain the instructions and instruction sequencing.
(b) Explain the performance considerations in hardwire control to microprogrammed Control with neat sketch.

UNIT II

11. Explain basic design issues and data transfer in DMA with neat diagram.

Or

12. What are the types of RAM Memories? Explain all the types of semiconductor RAM memories?

UNIT III

13. Explain the following.

(a) Multiplication of positive numbers.

(b) Booth Algorithm.

Or

14. What is Integer Division and explain all floating-point numbers and operations?

UNIT IV

15. Explain the basic concepts and performance considerations in Pipelining.

Or

16. Explain the all types of data hazards in pipelining.

