MAY 2024 **P/ID 16302/PIT1B**

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What is meant by fixed point representation?

2. Give micro program example.

3. What is meant by general register?

4. Define RISC pipeline.

5. Define two's compliment.

6. What is sign magnitude?

7. What is isolated input output?

8. Draw a neat architecture for connection of i/o bus to i/o device.

9. Define static RAM.

10. Write the importance of cache memory.

11. Define memory transfer.

12. Give some addressing modes.

PART B — ($5 \times 6 = 30$ marks)

Answer any FIVE questions.

13. Elaborate control memory with appropriate example.

14. Explain in detail about vector and array processors.

15. Draw a flowchart for floating point addition operation.

16. Explain in detail about serial communication with proper diagram.

17. Neat sketch on memory hierarchy in computer system.

18. Explain in detail about memory hierarchy in arithmetic operations.

19. What is meant by memory protection?

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Explain in detail about categories of micro operations with neat diagram.

21. Elaborate RISC pipeline with suitable example.

22. Illustrate floating point subtract operation with neat flowchart.

23. List out the types of modes of transfer and explain with proper diagram.

24. Compare and explain in detail about cache memory and virtual memory.

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