DECEMBER 2023 **P/ID 16302/PIT1B**

Time : Three hours Maximum : 80 marks

PART A — ($10 \times 2 = 20$ marks)

Answer any TEN questions.

1. What are the data representations?
2. Define bus transfer.
3. List the instruction formats.
4. Define addressing modes.
5. What is meant by 2's complement?
6. Give an example for Converting floating point into decimal.
7. Define direct memory access.
8. What is the functionality of data buffering.
9. Define dynamic RAM.
10. Define direct mapping.
11. What is meant by floating point representations?
12. What is vector processing?

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Explain in detail about micro operations.

14. Describe addressing modes with an example.

15. Elaborate the steps involved in addition and subtraction of signed-magnitude numbers.

16. Explain in detail about asynchronous data transfer.

17. Describe memory address map with its configuration.

18. Draw a flowchart for floating point multiply operation.

19. Explain in about importance of cache memory with an example.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Elaborate design of control unit with detail example.

21. Elaborate RISC pipelining with arithmetic and instruction with neat sketch.

22. Explain in detail about division operation with algorithm and flowchart.

23. Describe in detail about direct memory access with neat diagram.

24. Give a detail notes on associative memory with neat structure.

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