NOVEMBER 2025 **52504/125C2A**

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. What are the advantages of microcomputer organization?

2. Recall the fixed point representation.

3. What are character codes?

4. Define the term “BCD”.

5. Relate the rules for binary subtraction.

6. Show the 2’s complements method with example.

7. What are the function calls in 8085 microprocessor?

8. Define: “Data Bus”.

9. What is a flag?

10. Comment on 8085 interrupts.

11. What is the action of MOV B, A?

12. What is RISC?

PART B — (5 × 5 = 25 marks)

Answer any FIVE questions.

13. Convert the decimal number 200 into binary and octal.

14. Find the octal and hexadecimal number for the following binary number: 11011.

15. Elucidate the differentiate binary and BCD representations.

16. Describe the 10's complement for decimal with example.

17. Elaborate the instruction set of 8085 microprocessor.

18. Distinguish between the RIM and SIM instructions.

19. Identify the process of RISC pipeline.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Convert the following number $(0.513)_{10}$ to octal number.

21. Draw and explain the general architecture of 8085 microprocessor, pin out and signals.

22. Illustrate the different types of addressing modes of 8085 microprocessor.

23. Construct the 8257 DMA controllers in a computer system.

24. Examine the general architecture and functions of array processors.

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