Time: Three hours

Maximum: 75 marks

SECTION A — $(10 \times 2 = 20 \text{ marks})$

Answer any TEN questions.

- 1. Define microprocessor.
- 2. List any two drawbacks of assembly languages.
- 3. What is meant by a loop?
- 4. Give the need for indexing.
- 5. Define debugging.
- 6. Mention the purpose of a counter.
- 7. How time delay in calculated?
- 8. Name any two operations in a stack.
- 9. Give the expansion for ASCII, BCD.
- 10. Mention the radix of a binary number.
- 11. Define interrupt.
- 12. Give the expansion for RAM, ROM.

SECTION B $(5 \times 5 = 25 \text{ marks})$

Answer any FIVE questions.

- 13. What are the functionalities of a microcomputer?
- 14. Discuss the evolution of microprocessors.
- 15. Give the importance of MACROS.
- 16. Explain data transfer instructions with examples.
- 17. How call and return instruction works?
- 18. How BCD addition is performed?
- 19. How interrupts are implemented?

SECTION C \rightarrow (3 × 10 = 30 marks)

Answer any THREE questions.

- 20. Draw the architecture of 8085 microprocess and discuss it.
- 21. Write an assembly language program to pick the biggest among two given numbers.

- 22. What is a sub routine? Explain it with an example.
- 23. How the following conversions are made (a) BCD to Binary (b) Binary to BCD.
- 24. Discuss the trap problems on implementing 8085 interrupt.