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Fifth Semester B.C.A. Degree Examination, March/April 2021

(CBCS Scheme)

Computer Science

Paper XI – MICROPROCESSOR AND ASSEMBLY LANGUAGE

Time : 3 Hours] *[Max. Marks : 70*

Instructions to Candidates : Answer all Sections.

SECTION – A

Answer any **TEN** questions: **(10 × 2 = 20)**

1. Define a microprocessor. What is word length of 8085?

2. What is the purpose of PC and SP?

3. MVI C, 05 is a ———— byte instruction.

4. Give an example for implicit addressing.

5. What is the purpose of DAA instruction?

6. Define indexing.

7. What is a stack?

8. What are interrupts?

9. What is I/O interfacing?

10. What is RIM?

11. What is asynchronous data transfer?

12. What are the priority modes of 8259?

SECTION – B

Answer any **FIVE** questions : **(5 × 10 = 50)**

13. Explain the functional block diagram of 8085. **(10)**

14. Explain in detail the various addressing modes. **(10)**

15. (a) Explain the ROTATE instruction. **(5)**

    (b) Draw the timing diagram for the memory Read Cycle. **(5)**

16. (a) Explain in detail the conditional and unconditional JUMP instructions. **(5)**

    (b) Write a program to find 2's complement of a number. **(5)**

17. (a) What are subroutines? Explain CALL and RET instructions. **(5)**

    (b) Explain PUSH and POP operations with a neat diagram. **(5)**

18. (a) Explain SIM instruction. **(5)**

    (b) Differentiate between peripheral mapped I/O and memory mapped I/O. **(5)**

19. (a) Explain marked and vector interrupts. **(5)**

    (b) Explain the instructions : **(5)**

        (i) STAX D

        (ii) CMP M

20. Write short notes on :

    (a) Interfacing devices **(5)**

    (b) PPI **(5)**