SS – 686

V Semester B.C.A. Degree Examination, Nov./Dec. 2018
(CBCS) (F + R) (2016-17 and Onwards)
COMPUTER SCIENCE
BCA – 505 : Microprocessor and Assembly Language

Time : 3 Hours Max. Marks : 70

Instruction : *Answer* ***all*** *Sections.*

SECTION – A

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

1. What is a microprocessor ?
2. Explain briefly about the different types of buses in 8085.
3. Name the flags of 8085.
4. Mention any two instructions which clear the contents of accumulator.
5. Explain any two data transfer instructions of 8085.
6. Compare SUB reg and CMP reg instructions.
7. Write an assembly language program to find the 2's complement of an 8-bit number.
8. Define the terms machine cycle and instruction cycle.
9. Define counters and time delays.
10. Define interrupt.
11. Write an assembly language program to add two bytes.
12. What is memory interfacing ?

P.T.O.

SECTION – B

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

13. Explain the functional block diagram of 8085 microprocessor with a neat diagram. **10**

14. a) What is addressing mode ? Explain briefly the various addressing modes of 8085 microprocessor.

    b) Explain the classification of 8085 microprocessor instructions based on word size. Give example. **(5+5)**

15. a) Write an assembly language program to substract two 16 bit numbers.

    b) Explain the instructions DAA and DAD r_p. **(8+2)**

16. a) With an example, explain the logical instructions of 8085 microprocessor.

    b) Calculate the time delay using a register with clock frequency of 2 MHz

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    MVI C1 FF
LOOP DCR C
    JNZ LOOP.
```

(5+5)

17. a) Explain the different operations that can be performed on stack.

    b) Explain conditional CALL and RET instruction of 8085 microprocessor. **(5+5)**

18. a) Differentiate memory mapped I/o and peripheral mapped I/o.

    b) Write an assembly program to convert BCD to binary. **(5+5)**

19. a) Briefly explain the 8085 vectored interrupts.

    b) Write a note on RIM and SIM 8085 instructions. **(5+5)**

20. Write short notes on :

    a) DMA

    b) Demultiplexing of address bus in 8085. **(5+5)**
