CS - 500

39 V Semester B.C.A. Degree Examination, March 2023 (Y2K14) (CBCS) (F+R) COMPUTER SCIENCE

BCA 505 : Microprocessor and Assembly Language

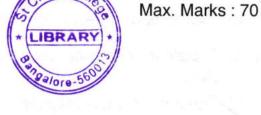
Time : 3 Hours

Instruction : Answer all Sections.

SECTION - A

Answer any 10 questions.

- 1. List any two features of 8085.
- 2. Differentiate between program counters and stack pointer.
- 3. How many memory locations can be accessed by processor, if it has 10 address lines ?
- 4. List any 4 data transfer instructions of 8085 processor.
- 5. Define machine cycle and instruction cycle.
- 6. What is the use of DAA Instruction ?
- 7. Write an ALP to find 2's complement of 8-bit number.
- 8. Define counter and time delay.
- 9. What is memory Interfacing ?
- 10. What are handshaking signals ?
- 11. Define subroutine.
- 12. What is an Interrupt ?



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SECTION - B

Answer any five questions.

4.10

13. Explain the architecture of 8085 processor with a neat labelled diagram.	10
14 a) Explain Flag Register with a diagram.	5
b) Explain opcode fetch machine cycle with a neat timing diagram.	5
15. a) Explain the classification of 8085 microprocessor instruction based on word size.	5
b) Compare memory mapped I/O and peripheral mapped I/O.	5
16. a) Explain the following Instructions :i) CMP M	6
ii) DAD	
iii) STAX B.	
b) Write an assembly language program to add two 8 bit numbers.	4
17. a) Calculate the time delay using a register with a clock frequency of 2 MHZ.	5
MVI B, FF	
LOOP : DCR B	1
JNZ LOOP	
b) Explain various Interrupts of 8085.	5
18 a) What is stack ? Explain PUSH and POP operations.	5
b) Write the steps to convert Binary to BCD.	5
19. a) Write an ALP to perform Block Transfer.	5
b) Write a note on RIM and SIM Instructions.	5
20. Write short notes on :	
i) Program status word of 8255 PPI	5
ii) Demultiplexing of address bus in 8085.	5