



CS – 500

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

P.T.O.



## SECTION – B

Answer **any five** questions.

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 : **6**  
i) CMP M  
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
      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 : **5**  
i) Program status word of 8255 PPI **5**  
ii) Demultiplexing of address bus in 8085. **5**
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