



UG – 298

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V Semester B.C.A. Examination, March/April 2021
(Y2K14) (CBCS) (F+R)
COMPUTER SCIENCE

BCA – 505 : Microprocessor and Assembly Language

Time : 3 Hours

Max. Marks : 70

- Instructions :** i) Answer **all** Sections.
ii) Section – **A** : Answer **any 10** questions.
iii) Section – **B** : Answer **any 5** questions.

SECTION – A

Answer **any 10** questions :



(10×2=20)

1. Define opcode and operand.
2. What is microprocessor ?
3. What is an instruction cycle ?
4. Explain DAD instruction.
5. How many memory locations can be accessed by processor, if it has 16 address lines ?
6. How many bytes are required to store the below instructions ?
 - a) CPI FFH.
 - b) LXID 8500.
7. Name the 5 flags of 8085 processor.
8. Define subroutine. List the subroutine instructions.
9. Define interrupt. List interrupt pins of 8085 processor.
10. Draw bit pattern of control word for 8255.
11. List any four data transfer instructions of 8085 processor.
12. Explain ALE and $\overline{IO/\overline{M}}$ pins of 8085 μ p.

P.T.O.



SECTION – B

Answer any 5 questions :

(5×10=50)

13. Draw the internal architecture of an 8085 processor and explain the blocks in brief. 10
14. a) Write an ALP to add two 16 bit no's along with carry stored. 4
b) Explain the instructions given below : 6
i) CPI 05H
ii) DAA
iii) LDA 8500H.
15. a) List any 5 arithmetic instructions of 8085 processor with an example. 5
b) Explain memory read machine cycle with neat timing diagram. 5
16. a) Write a program to exchange two 16-bit numbers. 5
b) Write an ALP to find 1's complement of a 16 bit binary number. 5
17. a) Write the steps used to convert BCD to Binary. Show with example. 5
b) Briefly explain 8085 vectored interrupts. 5
18. a) Explain different operations that can be performed on stack. 5
b) Write a note on rotate instructions of 8085 processor. 5
19. a) Compare memory mapped I/O and peripheral mapped I/O. 5
b) Write a note on addressing modes of 8085 processor. 5
20. Write short notes on : (5+5)
a) Time delay using register pair.
b) Interfacing devices.
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