D4BCS2201 **Reg.No.....**

Name: .....

FOURTH SEMESTER UG DEGREE EXAMINATION, APRIL 2024
(Regular/Improvement/Supplementary)

BCA
GBCS4A03T: MICROPROCESSORS ARCHITECTURE AND PROGRAMMING

Time: 2 ½ Hours **Maximum Marks: 80**

SECTION A: Answer the following questions. Each carries *two* marks.

(Ceiling 25 Marks)

1. Mention the purpose of SID and SOD lines.
2. What do you mean by memory mapping ?
3. What are the 16-bit registers available in 8085 microprocessor?
4. Mention the importance of accumulator in 8085.
5. State the need for a subroutine.
6. What are machine control instructions in 8085?
7. What is peripheral mapped IO?
8. What is an op-code?
9. List out the applications of 8254 chip?
10. Name the flags associated with 8086.
11. Name a non-maskable interrupt.
12. What is the functions of IO/M signal in the 8085?
13. What is the use of ALE signal in 8085?
14. What do you mean by machine cycle?
15. Define segmentation.

SECTION B: Answer the following questions. Each carries *five* marks.

(Ceiling 35 Marks)

16. Differentiate between microprocessor and micro computer.
17. Draw the block diagram of 8085 microprocessor?
18. Briefly explain the classification of memory.
19. What are the different machine cycles in 8085 microprocessor?
20. Write a program to add two 8 bit numbers using 8085 instructions.
21. Explain the various hardware interrupts in 8085. How these interrupts are serviced during a program?
22. Explain the physical address calculation in 8086 microprocessor?
23. Explain Bus Interface Unit of 8086?

SECTION C: Answer any *two* questions.Each carries *ten* marks.

24. Discuss branching, rotate and logical instructions in 8085 microprocessor?
25. Give an account of addressing modes in 8085 microprocessor?
26. Explain the pin diagram of 8086 microprocessor.
27. Write notes on 8255A, 8237.

(2 x 10 = 20 Marks)