

20U427

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Name:

Reg.No:

FOURTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2022

(CBCSS - UG)

(Regular/Supplementary/Improvement)

**CC19U BCS4 A14 / CC19U BCA4 A14 - MICROPROCESSORS ARCHITECTURE AND
PROGRAMMING**

(Computer Science / Computer Application - Common Course)

(2019 Admission onwards)

Time : 2.5 Hours

Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. What is a micro processor?
2. What is a bus? What are the principal buses in micro processor?
3. Name and explain 16 bit registers of 8085.
4. What is an opcode? explain with example?
5. What are the different categories of instruction set in 8085?
6. Explain MOV rd,rs instructions of 8085. Illustrate with examples.
7. How many states are there in memory write cycle? Explain?
8. What is a timing diagram?
9. What is meant by a subroutine call? Explain the steps involved during the execution of the subroutine call instruction with suitable example.
10. List the software interrupts of 8085.
11. Explain Mode 0 of 8254 counter.
12. Explain DMA controller.
13. What are the functional units of the BIU? 7. What is pipelining?
14. What are the functions of the 8086 CS, DS, SS and ES registers?

15. What is meant by immediate addressing in 8086? Give example.

(Ceiling: 25 Marks)

Part B (Paragraph questions)

Answer *all* questions. Each question carries 5 marks.

16. What is the difference between microprocessor and micro computer?

17. Describe general architecture of micro processor.

18. Explain addressing modes of the 8085 microprocessor.

19. Explain the logic instructions of 8085 with example.

20. Write an assembly program to Find the 1's complement of the number stored at memory location 4400H and store the complemented number at memory location 4300H.

21. What is meant by looping in assembly language?

22. What are the features of 8086 microprocessor?

23. Explain the internal architecture of 8086 microprocessor with a block diagram.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any *two* questions. Each question carries 10 marks.

24. Explain pin diagram of 8085 with neat diagram.

25. Describe the arithmetic instructions of 8085 microproc with suitable examples.

26. Describe the branch instructions of 8085 microprocessor suitable examples.

27. Explain the functions of different registers in 8086. Explain with examples, various flags of 8086 and their conditions in various instance.

(2 × 10 = 20 Marks)
