K20U 1349

Reg. No. : .....

Name : .....

III Semester B.C.A. Degree (CBCSS – Sup./Imp.) Examination, November 2020
(2014-'18 Admns)
Core Course
3B07BCA : INTRODUCTION TO MICROPROCESSORS

Time : 3 Hours Max. Marks : 40

SECTION – A

1. **One** word answer : **(8×0.5=4)**
   a) The 8085 instruction NOP is a _____ instruction.
   b) 8086 uses the directive _____ to define a byte type variable.
   c) _____ an example for maskable interrupt in 8086.
   d) List any two data manipulation instructions.
   e) _____ register that is used to store the bits required to mask the interrupt input.
   f) _____ number of ports are available in 8255.
   g) _____ is the addressing mode of the instruction LDA 9001H.
   h) Which instruction is required to rotate the content of accumulator one bit right along with carry ?

SECTION – B

Short notes on **any seven** of the following questions : **(7×2=14)**

2. Define the following pins :
   a) HOLD
   b) HLDA.
3. Give the functional categories of 8085 microinstructions.
4. What is the function of the CALL instruction ?

P.T.O.

5. Define two-byte instruction with one example.
6. Discuss the stack operation during execution of a PUSH and POP instructions.
7. How does the CPU identify between 8 bit and 16 operation ?
8. Give the functions of the following instructions :
   a) DAA
   b) XCHG.
9. What are DOS Interrupts ?
10. List the features of 8259.
11. How DMA is initiated ?

SECTION – C

Answer **any four** of the following questions : **(4×3=12)**

12. Discuss the addressing modes of 8085.
13. Explain different types of registers in 8086 microprocessor.
14. Explain the assembler directives.
15. What is maximum mode of operation in 8086 ?
16. Draw the architecture block diagram of 8255 and explain.
17. Write a simple assembly program and explain its parts and functions.

SECTION – D

Write an essay on **any two** of the following questions : **(2×5=10)**

18. Explain 8086 interrupts.
19. With the help of a neat diagram, explain 8086 architecture.
20. Discuss the arithmetic and logical instructions of 8085.
21. Describe the features of Intel 8257 as a DMA controller.