Roll No. ....

Total No. of Questions : 7]   [Total No. of Pages : 02

Paper ID [B0213]

(Please fill this Paper ID in OMR Sheet)

B.C.A. (Sem. - 3rd)

INTRODUCTION TO MICROPROCESSOR (BC - 305)

Time : 03 Hours   Maximum Marks : 60

Instruction to Candidates:

1) Section - A is **Compulsory**.

2) Attempt any **Four** questions from Section - B.

Section - A

Q1)   *(10 x 2 = 20)*

a) What is meant by word length of a microprocessor?

b) Give the significance of program counter.

c) What are the various operations performed by ALU?

d) Define opcode and operand.

e) Name the various Flag bits available in an 8085 microprocessor.

f) What is the use of ALE signal?

g) What is the function performed by SIM instruction in 8085?

h) Name the two modes used by the DMA processor to transfer data.

i) What is the importance of RISC processors? Give examples.

j) What do you mean by pipelining in an 8086 processor?

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Section - B

(4 x 10 = 40)

Q2) With a neat block diagram explain the architecture of an 8085 microprocessor.

Q3) (a) Describe instruction cycle, machine cycle and state.

    (b) Draw and explain the timing diagram for memory read operation.

Q4) (a) Explain what operation will take place when the following 8085 instructions are executed?

        XCHG, DCR M, RAL, PUSH PSW

    (b) Write an assembly language program in 8085 to find the largest number in a data array.

Q5) Explain in detail about the various addressing modes used in 8086. Give suitable examples.

Q6) Explain the different modes of operation of 8237 DMA. What are various control signals generated by DMA controller in master mode?

Q7) Write short notes on the following:

    (a) 8086 Interrupts.

    (b) Microprocessor applications.