Roll No. ....

Total No. of Questions : 13]   [Total No. of Pages : 02

Paper ID [A0215]

(Please fill this Paper ID in OMR Sheet)

BCA 305 (Old/S05) (Sem. - 2ⁿᵈ)
INDRODUCTION TO MICROPROCESSOR

Time : 03 Hours   Maximum Marks : 75

Instruction to Candidates:

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

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

Section - A

$(15 \times 2 = 30)$

Q1)

a)   Define the term word length.

b)   What is the function of address bus and also specify the direction of information flow on the address bus?

c)   Why are the program counter and the stack pointer 16-bit registers in 8085?

d)   Explain the function of ALE in 8085.

e)   Specify four control signals used by 8085.

f)   What are the different modes in which 8086 works?

g)   List limitations of 16-bit microprocessor.

h)   What is a flag? List all the commonly used flags in 8086.

i)   What do you understand by pipelining?

j)   List the processing units of 8086.

k)   What is the requirement of interrupt controller?

l)   Explain why each channel in 8257 DMA controller is restricted to 16K bytes of data transfer.

m)   What is a hardware interrupt?

n)   What is application of DMA?

o)   What is the role played by current word register in 8237?

Section - B

(9 × 5 = 45)

Q2) Discuss fetch operation and execute operation of Intel 8085.

Q3) Classify 8085 instructions in various groups. Give examples of instructions for each group.

Q4) Write a program for addition of two 8-bit numbers stored in memory locations FC00 and FC01 (using 8085 microprocessor).

Q5) Write a short note on CISC processors.

Q6) Discuss the register organization of 8086. Discuss the function of each register.

Q7) Explain the meaning of the following 8086 instructions: LOOP, DAA, CBW, IMUL, ROR.

Q8) Discuss various addressing modes of 8086.

Q9) Discuss the application areas of 16-bit microprocessor.

Q10) Explain in detail working of 8237 DMA controller.

Q11) Write a short note on arithmetic coprocessor.

Q12) Discuss cycle stealing and burst mode of DMA.

Q13) How will you select a microprocessor for a particular application?

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