B.Tech. (Sem. - 5ᵗʰ)
MICROPROCESSORS AND INTERFACING
SUBJECT CODE : EE - 307
Paper ID : [A0416]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours   **Maximum Marks : 60**

Instruction to Candidates:

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

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

3) Attempt any **Two** questions from Section - C.

Section - A

Q1)   *(10 x 2 = 20)*

a) Compare Z80 with 8085 in terms of instruction set?

b) Explain the instruction XTHL in 8085.

c) What is the purpose of data segment register in 8086?

d) Differentiate near jump from far jump in 8086.

e) Describe the function at pin RQ/GT_0 in maximum mode in 8086?

f) Which mode in 8254 is used to generate a square wave?

g) What is conversion time in A/D converter?

h) What is fully nested priority mode in 8259A?

i) What is purpose of 8 x 8 FIFO RAM in a programmable keyboard / display interface?

j) Define Macros in 8086.

(4 x 5 = 20)

Q2) What are the parameters on which selection of a particular microprocessor depends?

Q3) Describe with block diagram basic architecture of 8085?

Q4) What are addressing modes in 8086? Discuss each with example.

Q5) Write an assembly language program in 8086 which adds a byte number from one memory location to a byte from next memory location, puts sum in third memory location and saves state of carry flag in least significant bit of 4th memory location. Mask upper 7 bits of memory location where carry is stored.

Q6) What are Macros in 8086, discuss them with examples?

Section - C

(2 x 10 = 20)

Q7) Describe in detail with a block diagram simple 8086 based microcomputer system?

Q8) Describe interrupts and interrupt response of an 8086 family processor?

Q9) Describe with block diagram interfacing of DAC with 8086?

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