Roll No: .....

Total No. of Questions : 09] [Total No. of Pages :02

Paper ID [A0461]

(Please fill this Paper ID in OMR Sheet)

B. Tech. (Sem. - 4th)

MICROPROCESSOR AND ASSEMBLY LANGUAGE PROGRAMMING (CS - 208)

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 × 2 = 20)*

a) Specify the function of address bus and the direction of the information flow on address bus.

b) What happens in a single board microcomputer when the power is turned on any reset key is pushed?

c) How many memory locations can be addressed by a microprocessor with 14 address lines.

d) What is the function of accumulator?

e) Discuss flag register for 8085 µp.

f) Give the number of data bus and address bus for 8086 µp.

g) Give microprocessor applications.

h) What are the differences between microcontroller and microprocessors?

i) What do you meant by opcode and operands?

j) State difference between synchronous and asynchronous bus.

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Section - B

(4 × 5 = 20)

Q2) Discuss the memory mapped I/O technique and its use.

Q3) What are the functions of stack pointer and program counter?

Q4) Show and explain the interfacing of stepper motor with 8085 µp.

Q5) Discuss ROM and RAM used for microprocessors.

Q6) What do you mean by DMA? Explain its working.

Section - C

(2 × 10 = 20)

Q7) Draw and explain the architecture of 8085 microprocessor.

Q8) Discuss the interfacing of matrix keyboard with microprocessor in detail.

Q9) What do you mean by addressing modes? Discuss various addressing modes for 8085 microprocessor with suitable examples.