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Total No. of Questions : 09]

[Total No. of Pages :02

## Paper ID [A0461]

(Please fill this Paper ID in OMR Sheet)

**B. Tech. (Sem. - 4<sup>th</sup>)**

### **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  $\mu$ p.
- f) Give the number of data bus and address bus for 8086  $\mu$ p.
- g) Give microprocessor applications.
- h) What are the differences between microcontroller and microprocessors?
- i) What do you mean by opcode and operands?
- j) State difference between synchronous and asynchronous bus.

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**P.T.O.**

**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  $\mu$ p.
- 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.

