

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

B.Tech. (Sem. - 4th)

**MICROPROCESSOR AND ASSEMBLY LANGUAGE
PROGRAMMING**

SUBJECT CODE : CS - 208

Paper ID : [A0461]

[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 × 2 = 20)

- a) What do you mean by a synchronous and asynchronous bus? Give one example of each.
- b) Difference between direct and indirect address instruction.
- c) Explain Bus system.
- d) Differentiate between Min and Max modes of 8086 microprocessor.
- e) Name the various flag bits available in an 8085 microprocessor.
- f) Give the significance of SIM and RIM instructions available in 8085.
- g) Discuss various types of RAM.
- h) What is the purpose of CLK signal in an 8085 system?
- i) Differentiate a microprocessor and a microcontroller.
- j) List the various types of interrupt signals available in 8085.

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Section - B.

(4 × 5 = 20)

- Q2)** Discuss DMA.
- Q3)** Explain any five addressing modes, with the help of an example of each.
- Q4)** Discuss various data transfer instructions in 8085 Assembly Language.
- Q5)** Explain Instruction Cycle in detail.
- Q6)** Name the various registers and their usage in 8085 processor.

Section - C

(2 × 10 = 20)

- Q7)** Explain the architecture of 8086 Microprocessor.
- Q8)** Explain 4-way interleaved memory architecture with the help of diagram.
- Q9)** (a) Give the PIN details of an 8051 microcontroller and explain.
(b) Differentiate between PROM and EPROM

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