

Roll No.....

Total No. of Questions : 09]

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may 08

## Paper ID [CS208]

(Please fill this Paper ID in OMR Sheet)

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

### MICROPROCESSOR & 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.

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#### Section - A

Q1)

(10 × 2 = 20)

- a) How many address lines are necessary to address two megabytes of memory?
- b) While executing a program, when the 8085  $\mu$ P completes the fetching of machine code located at memory address 2057H, what will be the contents of program counter?
- c) Show the timing diagram for opcode fetch operation.
- d) Why the number of O/P ports in peripheral mapped I/O is restricted to 256?
- e) Start :    IN F2H  
              CMA  
              ORA A  
              JZ : start  
What will be the result for this program?
- f) What is the function of Accumulator?
- g) Give logical group instructions for 8085  $\mu$ P.
- h) Give brief idea about motorola 68000.
- i) Discuss DMA Controller briefly.
- j) Give timing and control signals for 8085  $\mu$ P.

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## Section - B

(4 × 5 = 20)

- Q2) Differentiate and explain UART & USART in data transfer operation.
- Q3) Write an assembly language program for 16 bit multiplication.
- Q4) Discuss various addressing modes for 8085  $\mu$ P with suitable examples.
- Q5) Discuss PSW in detail for 8085  $\mu$ P.
- Q6) Show and explain the interfacing of seven segment display with microprocessor.

## Section - C

(2 × 10 = 20)

- Q7) What do you meant by register? Discuss various registers of 8085  $\mu$ P.
- Q8) What is the function of 8251 chip? Discuss in detail.
- Q9) What is microcontroller? Discuss the architecture for 8051 microcontroller.

