

Roll No.

Total No. of Questions : 13]

[Total No. of Pages : 02

J-3739[S-1603]

[2037]

MCA (Semester - 2nd)

INTRODUCTION TO MICROPROCESSOR (MCA - 205)

Time : 03 Hours

Maximum Marks : 75

Instruction to Candidates:

- 1) Section - A is **compulsory**.
- 2) Attempt any **Nine** questions from Section - B.

Section - A

Q1)

(15 × 2 = 30)

- a) What do you mean by real and protected mode memory addressing?
- b) What is the role of 80X87 Processors?
- c) Give 8086 arithmetic instructions?
- d) On what voltage 8085 and 8086 operates.
- e) What is a PSW?
- f) Why Demultiplexing of AD_0-AD_7 is required?
- g) What is the role of stack in a microprocessor?
- h) What is need to know so many addressing modes?
- i) What is the role of DMA in microprocessor?
- j) In what way RST5 provides interrupt? Explain.
- k) How are the segment register used to from 20 bit address.
- l) Write three methods to clear the accumulator.
- m) What are 8086 program control instructions?
- n) What is difference between instruction,machine and clock cycles?
- o) What is the difference between Hardware and Software Interrupts?

P.T.O.

Section - B

(9 × 5 = 45)

- Q2)** Write a detailed note on 8259 interrupt controller.
- Q3)** How DMA allow bulk I/O data transfer? Discuss the salient features of 8257 DMA controller?
- Q4)** How 8086 provides better facilities than 8085?
- Q5)** Discuss the various addressing modes, using example.
- Q6)** Discuss merits and demerits of RISC over CISC.
- Q7)** Why Microprocessor based interrupt are termed as flexible systems?
- Q8)** What do you understand by DMA? Draw the block diagram of 8257 and Explain it.
- Q9)** Discuss the various addressing mode of 8086 Microprocessor with example.
- Q10)** Draw the 8086 pin diagram and explain the function of each of its pin.
- Q11)** Draw the 8287 pin diagram and explain the function of each of its pin.
- Q12)** Discuss the use of software interrupt instruction.
- Q13)** The 8086 register contain the following data:
AL=0111 1011, BL=1110 1011, AH=0100 0000, BH=0010 0000
What will be the content of register AL and register BL after execution of following instruction:
- (a) XOR AL,AL
 - (b) SAL AL,1
 - (c) ADD AL,BH
 - (d) AND AL,BL

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