(4)

(3 Hours)

QP Code: MV-18092 [Total Marks: 100

Q1, is compulsory

Solve any four out of remaining

Q1.

- A. Draw and explain read write bus cycle of 8086 in maximum mode. (5 marks)
- B. What are advantages of memory segmentation in 8086?

(5 marks)

C. Write features of PIC-18.

(5 marks)

D. Explain PIC 18 data memory organization.

(5 marks)

Q2. A

Draw and interface diagram of 8086 microprocessor and 8087 NDP, also explain various interface signals and co-processor working with host processor. (10 marks)

Q2. B

Design a system using 8086 in minimum mode with following specifications

- 1. 8086 operating on 5 MHz
- 2. 16 KB RAM using 8 KB device with starting address of 10000.
- 3. 16 KB EPROM using 8 KB device.

(10 marks)

- Q3. A. What is string addressing mode of 8086. Explain string instructions of 8086. (10 marks)
- Q3 B. Draw and explain interfacing of 8086(maximum mode) and 8259 in single mode. (10 marks)
- Q4.A Write assembly language programme for 8086 to exchange a 1 KB block of data from memory location 40000 to 50000 . (10 marks)
- Q4 B Explain following instructions of PIC18
 - 1. ANDLW k 2. BTFSC f,b 3. SUBLW k 4. DECFSZ f,d 5. RRF f,d

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QP Code: MV-18092

Q5. A Connect four 7-segment displays to PIC18 and write assembly language programme to display
'5' on LSB of display. (10 marks)

Q5 B Write instruction format of PIC 18 instructions. (10 marks)

Q6A. Draw and explain interfacing of 8086 and 8257 DMA controller. (10 marks)

Q6 B Explain I/O synchronization methods of PIC18. (10 marks)

Q7. A. Explain interrupt structure of 8086. (10 marks)
Q7. B. Explain assembler directives of 8086. (10 marks)