

**QP Code : MV-18092**  
**[Total Marks : 100**

**(3 Hours)**

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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- 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)
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