

MM-II
ET-VI-REV

19/11/2014
QP Code : 15037

(3 Hours)

[Total Marks :100

- N.B. :** (1) Question No. 1 is compulsory.
(2) Attempt any four questions out of remaining six questions.
(3) Assume suitable data, wherever required with justification.

1. (a) Design 8086 microprocessor based system with following specification. 12
 - (i) 8086 working at 6MHz in minimum mode.
 - (ii) 16KB EPROM using 8KB chips.
 - (iii) 16 KB SRAM using 8 KB chips.
- (b) Explain data and program memory organization of PIC 18 micro controller. 8
2. (a) Discuss different data transfer modes of DMA controller 8257. 10
- (b) Write a function of following 8086 microprocessor pins. 10
 - (a) $\overline{\text{LOCK}}$
 - (b) $\overline{\text{QS}}_0 / \overline{\text{QS}}_1$
 - (c) $\overline{\text{BHE}}$
 - (d) $\overline{\text{TEST}}$
 - (e) $\overline{\text{INTA}}$.
3. (a) Explain maximum mode of 8086 microprocessor. 10
- (b) Draw and explain interfacing of 8086 with 8255. 10
4. (a) Explain the addressing modes of PIC 18 controller with suitable example. 10
- (b) Draw and explain interfacing between 8086 with 8087 co-processor. 10
5. (a) Write a program and draw flow chart for block of data transfer [from 10000 to 20000.] 10
- (b) Explain following instructions of 8086 microprocessor. 10
 - (1) MOV CL, 25H
 - (2) SUB CL, [BX+DX]
 - (3) ADD AL, [BX + SI]
 - (4) STC
 - (5) MOVS.

6. (a) With the help of neat diagram Interface 7 segment display with PIC 18. 10
(b) Write a program to load two bytes in data register REG0 and REG1. Add the 8
bytes and store in register REG2.
(c) Explain status register of PIC 18 micro controller. 2
7. Write short note on :— 20
(a) PIC 18 micro controller ports
(b) Bus controller 8288
(c) Block diagram of DMA 8257
(d) Memory segmentation of 8286.
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