T.E-SEM-VI - OLD - MM-II - EXTC

12/05/2015

(OLD COURSE) **Q.P. Code: 4410**

(3 Hours) **Total Marks : 100**

N.B : (1) Question No. **1 is compulsory.**

(2) Solve any **four** questions from the remaining **six** questions.

(3) **Figures** to the **right** indicate **full** marks.

(4) Assume suitable **data** where **necessary.**

1. (a) Explain rotate instructions of PIC 18F microcontroller. 5

   (b) How many registers are available as stack in PIC 18F microcontroller? 5

   What is the size of stack pointer in PIC 18F microcontroller?

   (c) Explain Flag register of 8086. 5

   (d) Explain significance of RESET and READY signal in 8086 5

2. (a) Explain the following instructions of PIC 18F microcontroller . 10

   (i) DAW (ii) BTG PORT C,4,C (iii) SLEEP (iv)TBLRD*+ (v) MULWF 0x25,0

   (b) Draw and explain interfacing of 8086 with 8255. 10

3. (a) With the help of flowchart/algorithm write assembly language program for 8086 to find largest number from a data block of ten 8 bit numbers. Assume the necessary data. 10

   (b) Explain the instruction format of PIC 18F microcontroller. 10

4. (a) Explain interrupt structure of 8086. 10

   (b) Explain addressing modes of PIC 18F microcontroller. 10

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5. (a) Explain interfacing of 8259 with 8086 in minimum mode. 10

(b) Design 8086 microprocessor based system using minimum mode with following specifications 10

(i) 8086 microprocessor working at 8 MHz.

(ii) 32 KB EPROM using 16 K x 8 devices.

(iii) 32 KB SRAM using 16 K x 8 devices.

Clearly show memory map with address ranges.

6. (a) Explain string instructions and prefix of 8086. 10

(b) Interface two common cathode seven segment display to PIC 18F microcontroller using PORT B and PORT C. Explain interfacing with the help of neat block diagram. 10

7. Write note on any four of the following 20

(a) PIC 18F microcontroller Reset.

(b) Comparative study of salient features of 8086 and Pentium.

(c) Assembler directives for 8086.

(d) PIC 18F STATUS register.

(e) Memory segmentation in 8086.
