T.E. ETRX VI (Rev)
Microprocessor & Microcontroller -II

Con. 3423-11.   (REVISED COURSE)   **RK-2604**

(3 Hours)   [Total Marks : 100

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

(2) Solve any **four** questions out of **remaining**.

1. (a) Briefly describe the condition(s) which cause the 8086 to perform each of the   5
following types of interrupts :
type0, type1, type2, type3, type4.
   (b) Describe the use of CAS0, CAS2 and CAS2 lines in a system with a cascaded   5
8259 (A).
   (c) For P18 explain the concept of pipelining instruction and advantages.   5
   (d) How many registers are available as stack in PIC 18 microcontroller and what   5
is the size of stack pointer ?

2. (a) Write a program to produces a packed BCD type from 2 ASCII-encoded digits. 10
   (b) Write all addressing modes of 8086 with one example each and also state the   10
types of instructions.

3. (a) Draw and explain interfacing of 8259 with 8086.   10
   (b) Describe how the control bus signals are produced for an 8086 system operating 10
in maximum mode.

4. (a) Draw and explain interfacing of 8087 with 8086.   10
   (b) Define the term macro, what is advantage of writing a macro over a subroutine ? 10
Explain with example.

5. (a) In PIC 18F programming model, what is the difference between W register and 10
data registers ? Specify the size of program counter and its function.
   (b) Specify the number of instructions in a PIC 18 and bit size of most instructions. 10

6. (a) Interface two common-anode seven segment LEDs to PORTB and PORTC of 10
18F microcontroller and write instructions to design an up-counter counting from
00 to 59 at the interval of 100 ms and display the count at two seven-segment
LEDs.
   (b) Write a note on PIC 18 Reset.   10