

6

Q.P. Code :27296

[Time: 3 Hours]

[Marks:80]

Please check whether you have got the right question paper.

N.B: 1. Question No. 1 is compulsory. Attempt any three questions from the rest..

2. Figure to the right indicates marks
3. Make suitable assumption wherever applicable
4. Write neat and clean in a legible handwriting.

- Q.1 Answer any four questions 20
- a) Differentiate microprocessor and microcontroller in terms of specification, architecture operations, cost and use.
 - b) Explain the different data bus and address bus of PIC 18 microcontroller.
 - c) Explain what is file select register. What is the significance of the size of file select register?
 - d) What is an interrupt process and what is interrupt service routine.
 - e) What are different data transfer scheme.
- Q.2 a) Draw the programming model of PIC 18 and explain different register of ALU and register unit. 10
 b) Explain all move and load instruction of PIC 18 microcontroller. 10
- Q.3 a) What is an assembler and assembler directives? Explain any six assembler directives. 10
 b) Write instructions to add ten eight bit numbers stored in consecutive memory location in data memory and save the result in 11th and 12th locations. 10
- Q.4 a) Explain the basic concept of input output interfacing in PIC18 microcontroller. 10
 b) Explain the RCON, INTCON and PIR register of PIC 18 microcontroller. 10
- Q.5 a) Explain what is prescalar. 05
 b) What is T0CON register? 05
 c) Write a program to set up timer 0 in 16 bit mode to generate 1 sec delay. 10
- Q.6 Write short note on any two 20
- a) Serial communication unit PIC 18 that is USART.
 - b) Seven segment LED interfacing with PIC 18 microcontroller.
 - c) DC motor control using PIC 18.
