

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 prescaler. 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.
