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SEAT No. :

P3619

[Total No. of Pages : 2

[4858] - 1045**T.E. (E&TC) (Semester - I)****MICRO CONTROLLER AND APPLICATIONS****(2012 Pattern) (End-Sem.)***Time : 3 Hours]**[Max. Marks :70**Instructions to the candidates:*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right indicate full marks.*
- 3) *Assume suitable data, if necessary.*

- Q1)** a) Compare RISC and CISC Processors. [6]
 b) Explain interrupt structure in 8051 microcontroller. [6]
 c) Explain instruction pipeline flow in pic18F****. [8]

OR

- a) Explain Criteria for choosing a microcontroller. [6]
- b) Explain Structure of internal memory organization of 8051. [6]
- c) Explain Data memory organization with details description of GPRs and SFR in PIC 18F458. [8]

- Q3)** a) Explain T1CON and T2CON Register in PIC18F****. [8]
 b) Explain Interrupt structure of PIC18F****. [8]

OR

- Q4)** a) Draw and explain interfacing of 4*4 matrix key pad with Pic 18F**** microcontroller using interrupt. Write code in 'c'. [8]
 b) Explain PWM Generation with Example. [8]

- Q5)** a) Draw and explain interfacing of 12C based RTC with PIC18F****. Write a code in C. [10]
 b) Compare SPI and I2C protocol. [8]

OR

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- Q6)** a) Draw and Explain MSSP Structure of PIC18F**. [8]
b) Draw and explain interfacing of ADC for analog input 0-5V and write a C code. [10]

Q7) Design a DC Motor control using PWM. [16]

OR

Q8) Design a Digital multimeter to display values on LCD Display. [16]

