Total No. of Questions : 6]

SEAT No. :

P17

[Total No. of Pages : 2

Oct.-16/T.E./Insem. - 16

T.E. (Electrical)

ADVANCED MICROCONTROLLER & ITS APPLICATIONS

(2012 Pattern) (Semester - I)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right side indicate full marks.*
4) *Assume suitable data if necessary.*

UNIT - I

Q1) a) Explain RAM organization of PIC18F458. **[6]**

b) Write a short note on oscillator support used in PIC18F458 microcontroller. **[4]**

OR

Q2) a) Explain status register of PIC18F458. **[6]**

b) Compare CISC & RISC architecture. **[4]**

UNIT - II

Q3) a) Write an assembly language program to add the contents of file register 0×40 H to the contents of file register 0×41H & store the result in file register 0×42H. **[6]**

b) Explain with an example the addressing modes of PIC18F458. **[4]**

OR

Q4) a) Write a assembly language program to copy an array of 100 elements starting from a location 0×010 to a memory location 0×200 onwards. **[6]**

b) Explain the following instruction **[4]**

i) MOVF f,d,a

ii) BSF f,b,a

P.T.O.

UNIT - III

Q5) a) Explain the use of assembler and compiler. **[4]**

b) Write a program in C language to get a byte from port B and send it to port C. **[6]**

OR

Q6) a) Explain T0CON register. **[4]**

b) Write a program in C language which will copy a byte from port C to port D on occurrence of an INT0 interrupt. **[6]**