Total No. of Questions : 6]

SEAT No. :

P9007

[Total No. of Pages : 1

Oct-22/TE/Insem-537
T.E. (Electrical)
ADVANCED MICROCONTROLLER AND EMBEDDED SYSTEM
(2019 Pattern) (Semester - I) (303145 A)(Elective - I)

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

Instructions to the candidates:

1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Use of Calculator is allowed.***
5) ***Assume Suitable data if necessary.***

Q1) a) Explain in brief the Program and data memory organization in PIC 18. **[5]**

b) Compare CISC & RISC architectures. **[5]**

OR

Q2) a) Explain C data types in brief. **[5]**

b) Explain status register in detail. **[5]**

Q3) a) Explain the SFRs related to I/O ports of PIC 18F458 microcontroller. **[5]**

b) Explain Header and source file in Embedded C Program. Also explain pre-processor directives with examples. **[5]**

OR

Q4) a) Explain Stack Pointer and Program Counter in detail. **[5]**

b) Explain various timers and also explain T0CON Register. **[5]**

Q5) a) Write PIC18 program to blink LEDs connected to Port C of PIC18. **[5]**

b) Write a C Program to turn bit 5 of Port B on and off 50,000 times. **[5]**

OR

Q6) a) Write a C18 program to toggle only PORTB.4 continuously every 50msec. Use Timer0, 16 bit mode, 1:4 prescalar to create delay. Assume XTAL = 10 MHz. **[5]**

b) Write a C18 program to toggle all bits of port B continuously. **[5]**

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