Total No. of Questions : 4]

SEAT No. :

PC37

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T.E. (Electrical Engineering) (Insem)
ADVANCED MICROCONTROLLER AND EMBEDDED SYSTEMS
(2019 Pattern) (Semester-I) (Elective - I) (303145 A)

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

Instructions to the candidates:

1) ***Solve Q.1 or Q.2, Q.3 or Q.4.***
2) ***Figures to the right indicates full marks.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Assume suitable additional data, if necessary.***
5) ***Use of non - programmable calculator is allowed.***

Q1) a) Compare CISC and RISC architectures. **[7]**

b) Explain in brief with neat diagram the program memory organization of PIC 18. **[8]**

OR

Q2) a) Explain C control loops and C functions in details. **[7]**

b) Explain Stack pointer (STKPTR) and Program Counter. **[8]**

Q3) a) Enlist SFR's related with I/O Ports. Write a C program to transfer data from PORTB to PORTC. **[7]**

b) Write a C program to generate a delay of 10msec on pin RB2 using Timer0 programming 1:4 prescaler, assume XTAL = 10 MHz. **[8]**

OR

Q4) a) Draw LED interfacing diagram with PIC 18. Switch (SW) is connected to RBI and LED connected to RB7. Write a C program get status of SW and send it to LED. **[7]**

b) Explain T0CON and find value for T0CON register if Timer 0 used in 16 - bit mode, 1:4 prescaler, and uses internal clock frequency (Fosc/4) for clock Source. XTAL =10MHz. **[8]**

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