Total No. of Questions : 4]

SEAT No. :

P5037

[Total No. of Pages : 1

[6187]-437
T.E. (Electrical Engineering) (Insem)
ADVANCED MICROCONTROLLER AND EMBEDDED SYSTEMS
(2019 Pattern) (Semester - I) (303145 A) (Elective - I)

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 indicate 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) Explain in brief with neat diagram the data memory organization of PIC 18. **[7]**

b) Explain status register in detail. State the flags affected after addition of 02H and FE H. **[8]**

OR

Q2) a) Explain C data types character and integer in detail. Also explain pre-processor directives with examples. **[7]**

b) Explain Stack pointer (STKPTR) and Bank Select Register (BSR). Also, write instruction to select bank 15. **[8]**

Q3) a) Explain SFR's related with I/O Ports. Also give dual function of PORTB. **[7]**

b) Write a C program to generate a delay of 20msec on pin RB0 using Timer0 programming without prescaler, assume XTAL = 10 MHz. **[8]**

OR

Q4) a) Explain in detail bitwise T0CON register. Also, Explain Prescaler in details. **[7]**

b) State different types of delay generation. And, write a C program to toggle LEDs connected to Port D with 50msec delay. **[8]**