

Total No. of Questions : 4]

SEAT No. :

PC37

[6360]-37

[Total No. of Pages : 1

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]

