

Total No. of Questions : 4]

SEAT No. :

PE36

[Total No. of Pages : 1

[6579] 337

T.E. (Electrical Engineering) (Insem)

ADVANCED MICROCONTROLLER AND EMBEDDED SYSTEMS

(2019 Pattern) (Semester - I) (303145A) (Elective-I)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Solve Q1 or Q2; Q3 or Q4.*
- 2) *Figures to the right indicates full marks.*
- 3) *Neat diagram 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 data memory organization of PIC 18. [8]

OR

- Q2)** a) Explain embedded C data type in detail, also explain header file and source file. [7]
b) Explain Status register and Program Counter. [8]
- Q3)** a) Enlist I/O Ports with number of I/O pins of PIC18F458. Give function of SFR's related with I/O ports. [7]
b) Write a C program to blink LED connected to RB1 with a delay of 200 micro-sec using Timer0. Assume XTAL=10 MHz. [8]

OR

- Q4)** a) Draw LED interfacing diagram with PIC 18. Write a C program to blink LED connected to PORTB continuously with delay of 20 msec. [7]
b) Explain T0CON and find value for T0CON register if Timer 0 used in 16-bit mode, 1:64 prescaler, and uses internal clock frequency ($F_{osc}/4$) for clock Source. XTAL=10MHz. [8]

