

Total No. of Questions : 4]

SEAT No. :

PD36

[6409]-236

[Total No. of Pages : 2

S.E. (Information Technology) (Insem)
PROCESSOR ARCHITECTURE
(2019 Pattern) (Semester-IV) (214451)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Attempt Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Explain data memory organization of PIC18 micro controller with suitable diagram. [5]
- b) Write short note on Brownout Reset [5]
- c) State any 5 features of PIC18 microcontroller. [5]

OR

- Q2)** a) With a suitable diagram explain architecture of PIC18 microcontroller. [6]
- b) What is addressing mode? Explain with example different addressing modes of PIC18. [5]
- c) Differentiate between run mode, idle mode and sleep mode. [4]

- Q3)** a) Draw the format of T0CON register and explain the functionality of each bit. [7]
- b) For the configuration: [4]
- RD0, RD2, RD4, RD6 as input port
RD1, RD3, RD5, RD7 as output port
RC1, RC2, RC4, RC5, RC7 as output port
RC0, RC3, RC6 as input port
Find the value to be loaded in TRISD and TRISC register.
- c) Write short note on I/O port structure of PIC18F458. [4]

OR

P.T.O.

- Q4) a)** Calculate the amount of time delay generated by Timer 0 if [7]
TMR0H=FFh TMR0L=F2h
XTAL Frequency =10MHz Prescalar =1:64
- b) Name the SFRs associated with each I/O port of PIC18F. What is the role of TRISx SFR? [4]
- c) Differentiate between timer and counter. [4]

