

Total No. of Questions : 4]

SEAT No. :

PF223

[Total No. of Pages : 2

APR-26/SE/Insem-276

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

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

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

- Q1)** a) Draw and explain architecture of PIC 18 microcontroller. [6]
b) Write short note on status register of PIC 18 microcontroller. [5]
c) Differentiate between microprocessor and microcontroller. [4]

OR

- Q2)** a) With suitable diagram, explain data memory organization of PIC 18 micro controller. [6]
b) Write short note on watchdog timer used in PIC 18 microcontroller. [5]
c) State any 4 features of PIC 18 microcontroller. [4]

- Q3)** a) Explain working of PIC 18F Timer 1 with the help of suitable diagram. [7]
b) Which SFRs are associated with each I/O port of PIC 18F? What is the role of LATx SFR? [4]
c) Differentiate between timer and counter. [4]

OR

P.T.O.

Q4) 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 PIC 18F458. [4]

