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SEAT No. : [ ]

PB35

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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) ***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) Explain any 3 addressing modes of PIC micro controller with one example. **[6]**

c) State features of PIC18 microcontroller. **[4]**

OR

Q2) a) With a neat diagram discuss in detail about the architecture of PIC 18 micro controller. **[6]**

b) Write short note on power down modes of PIC 18 micro controller. **[5]**

c) Differentiate between microprocessor and microcontroller. **[4]**

Q3) a) Draw the format of T0CON register and explain the functionality of each bit. **[7]**

P.T.O.

b) Name the SFRs associated with each I/O port of PIC18F. **[8]**

What is the role of TRISx SFR?

Find the value of be loaded in TRISD and TRISC register for the following:

RD0,RD1, RD2, RD3 as input port

RD4, RD5, RD6, RD7 as output port

RC0, RC2, RC4, RC6, RC7 as output port

RC1, RC3, RC5 as input port

OR

Q4) a) Explain working of PIC18F Timer 0 in 16bit mode with the help of suitable diagram. **[8]**

b) Calculate the amount of time delay generated by Timer0 if **[7]**

TMR0H=FFh TMR0L=F2h

XTAL Frequency=10MHz Prescalar=1:64