

Total No. of Questions: 4

SEAT NO

[Total No. of Pages: 1

**S.E. INSEM / APR- 2022**

**S.E. (IT)**

**214451: Processor Architecture**

**2019 Pattern - Semester-II**

***Time : 1 Hour]***

***[Max. Marks : 30***

***Instructions to the candidates:***

- 1) *Answer Q.1 or Q.2, and 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.*

		Marks
Q1	a Draw and explain the architecture of PIC18F458	7
	b Explain any four instructions of PIC18 with example.	8
	<b>OR</b>	
Q2	a What are various oscillator options in PIC18? Explain any two. Write a note on config register.	7
	b What is the role of a microcontroller in an embedded system? Explain different selection criteria of microcontroller for an embedded system.	8
Q3	a In the PIC18F458, how many pins are designated as I/O port pins? Draw the pin diagram of PIC18F458.	7
	b Explain working of Timer 1 as timer and counter in detail.	8
	<b>OR</b>	
Q4	a How many pins are designated as PORTB in the 40-pin DIP package? What are their numbers? Explain PORTB pins with multi functions if available.	7
	b Explain in detail Timer2 SFRs.	8