Total No	o. of Questions: 8]	SEAT No. :
PA-12	247 [5925]-270	[Total No. of Pages : 2
	S.E. (Information Technolo	gy)
	PROCESSORARCHITECT	URE
	(2019 Pattern) (Semester-IV) (214451)
		,
	1½ Hours]	[Max. Marks : 70
	tions to the candidates:	N & ON CON W
1)	Answer Q.No. 1 or Q.No. 2, Q.No. 3 or Q.No. 4, Q. Q.No. 8.	No. 5 or Q.No. 6, Q.No. 7 or
2)	Neat diagrams must be drawn wherever necessary.	
3)	Figures to the right indicate full marks.	9
<i>4</i>)	Assume suitable data, if necessary.	
Q1) a)	Write a short note on interrupt structure of Pl	[7] [7] [7] [7] [7] [7]
b)	Justify the importance of Interrupt Control	ol Register (INTCON) in
,	PICISF.	[7]
c)	Explain RCIF and TXIF flag in programm	ing serial communication
,	interrupt.	[4]
	OR V	
Q2) a)	Draw an interfacing diagram for 16X2 LCD wi	ith PIC18 F microcontroller
2 / 11/	and explain its working	[8]
b)		[6]
- /	i) ISR	
	ii) IVT	
c)		65 [4]
()	Differentiate setweetherrupt and poining.	
Q3) a)	Explain the working of compare mode of CC	CP Module in PIC18F with
20, 4)	block diagram.	[6]
b)		$\begin{array}{c} \begin{array}{c} \\ \\ \\ \end{array} $
c)	Distinguish between synchronous and	d asynchronous serial

Q4) a) List the steps involved in programming PIC microcontroller in capture mode. [6]

OR

communication.

b) Write short note on I2C bus. [6]

c) Explain UART module in PIC18F. [5]

P.T.O.

[5]

Q 5)	a)	Explain in detail the functions of ADCON1 SFR of PIC18 microcontroller. [7]		
	b)	State the features of RTC. Explain function of following pins of DS1306 [7]		
	c)	i) SERMODE ii) SDI iii) SDO Find the value for the ADCON0 register if we want FOSC/8, Channel 0, and ADON on. [4]		
		OR OR		
Q6)	a)	Draw and explain the interfacing diagram of DAC0808 with PIC18FXXX. [8]		
	b)	Assuming that R=5 Ω and Iref=2 mA for DAC0808, calculate Vout for		
	,	the following binary inputs: [6]		
		i) 10011001 (99H)		
	0	ii) 11001000 (C8H)		
		iii) 10001000 (88H)		
	c)	Explain in detail the functions of following flags related to onboard		
		ADC of PIC18 microcontroller. [4]		
		i) GO/DONE ii) ADON		
		II) ADOIN		
Q7)	a)	Describe the ARM bus technology. [6]	トレ	
2,	b)	Compare the ARM7, ARM9 and ARM11 processors.	,	
	c)	Discuss the different exceptions in ARM processor. [5]		
		3		
		OR		
<i>Q8</i>)	a)	Explain CPSR register of ARM. [6]		
	b)	Write significance of special registers R13, R14 and R15 in ARM7. [6]		
	c)	Write short note on ARM7 processor modes. [5]		
		Write short note on ARM7 processor modes. [5]		
		6.		

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