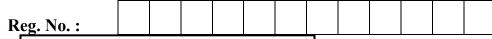
C



# **Question Paper Code: U4425**

## B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2024

#### Fourth Semester

## Computer Science and Engineering

#### 21UEC425-MICROPROCESSORS AND MICROCONTROLLERS

			(Regulation	ons 2021)		
Duration: Three hours Maximum: 10						100 Marks
			Answer ALI	L Questions		
		PA	ART A - (5 x	x 1 = 5Marks)		
1.	The registers	of 8086 arebit	s in size.			CO1-U
	(a) 8	(b)12		(c) 16		(d) 20
2.	The generation	on of a square wav	e is possible	e in the mode		CO1-U
	(a) Mode1	(b) Mo	de2	(c) Mode3	(d) Mode4	
3.	What is the bit size of the 8051 micro controller?				CO1-U	
	(a) 8bit	(b) 4 bit		(c)16bit		(d) 32 bit
4.	For writing commands on an LCD,RS bit is					CO1-U
	(a) Set	(b) Reset	(c) Set	& Reset	(d) none of t	the above
5.	How many RPO status bits are required for the selection of two				)	CO1-U
	Register banl	ks?				
	(a)1	(b) 2		(c)8		(d)16
		PA	RT - B (5 x	3= 15 Marks)		
6.		-		Hand the stack points of the top of the	_	CO2-App
7.	Define Baud	rate.				CO1- U
8.	Distinguish p	olling an d interru	pt mechanis	sm.		CO1- U
9.	What is the f	function of pin no5	& 6 in LCD	<b>)</b> ?		CO1- U
10	List the appli	cations of aurdino				CO1- U

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### PART - C (5 x 16= 80Marks)

11	(a)	Explain about interrupt handling process in 8086.	CO1 –U	(16)
		Or		
	(b)	Define Addressing modes. What are the different Addressing mode so 8086 microprocessor? Explain each addressing mode with examples?	CO1- U	(16)
12	(a)	Discuss in detail about the type of interfacing device is needed to transfer the data serially with 8086.  Or	CO1- U	(16)
	(b)	Explain in detail about DMA controller with a neat sketch.	CO1- U	(16)
13	(a)	Explain about different instruction set associated with 8051micro controller.	CO1- U	(16)
		Or		
	(b)	Describe the internal architecture of 8051 microcontroller with neat diagram.	CO1- U	(16)
14	(a)	Assume that he 8255 is interfaced to the 8051at the addresses 8000H-8003. Write a program to read the content of Port A and write it in other ports.  Or	CO3- App	(16)
	(b)	Interface step premotor with 8051microcontroller and develop a code to rotate the motor in clock wise direction.	CO3- App	(16)
15	(a)	Interface LCD with aurdino microcontroller and develop Code for the same.	CO3- App	(16)
		Or		
	(b)	How motor speed is controlled by PWM develop a code for it.	CO3- App	(16)