B.E.(with Credits)-Regular-Semester 2012 - Computer Technology Sem IV CT403 - Advanced Microprocessor

P. Pages : 2 Time : Three Hours		* 4 0 0		GUG/W/16 Max. Mar	<b>GUG/W/16/3882</b> Max. Marks : 80				
	Note	s :	<ol> <li>All questions</li> <li>Due credit w</li> <li>Assume suita</li> <li>Diagrams and</li> <li>Illustrate you</li> </ol>	s carry m ill be giv able data d Chemi ır answer	arks as indi ven to neath wherever n cal equatior rs wherever	cate ess a leces is sh nece	d. Ind adequate dimensions. sary. ould be given wherever necessary. essary with the help of neat sketches.		
1.	a)	Exp	lain physical addr	ess form	ation in 808	36.		8	
	b)	Draw the register organization of 8086 and explain typical application of each register.							
						O	R		
2.	a)	What do you mean by addressing modes what are the different addressing modes8supported by 8086. Explain each of them with suitable examples.8							
	b)	Exp i) iii)	lain function of for $\overline{RQ}/\overline{GT}$ RESET	ollowing ii) iv)	pins of 808 DT/R NMI	6		8	
3.	a)	Show the interface of 8-bit DAC with 8086 and write a program to generate triangular wave at output of DAC.							
	b)	Design a programmable timer using 8253 and 8086. Interface 8253 at an address 0060 H for counter 0 and write a program to interrupt the processor after 10 ms. The 8086 and 8253 run at 6 MHz and 1.5 MHz respectively.							
						Ol	R		
4.	a)	Explain the control word format of 8255 in I/O and BSR mode.							
	b)	Draw and discuss internal architecture of 8253.							
5.	a)	Explain the initialisation sequence of 8259 A.							
	b)	Explain the following term in relation to 8259.							
		i)	Cascading		i	i)	Buffered mode		
		iii)	EOI		i	v)	Edge & level triggered mode.		
						O	R		
6.	a)	Exp	lain interrupt strue	cture of 8	3086.			8	
	b)	Disc	cuss the status reg	ister forr	nat of 8272.			8	

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7.	a)	Explain various multiprocessor configurations.			
	b)	Discuss the function of EOP signal of 8237.	8		
		OR			
8.	a)	Explain the function of different registers of 8237.	8		
	b)	Discuss register organization of 8087.	8		
9.	a)	Explain addressing modes of 8051 instruction set.	8		
	b)	Describe different types of data transfer instructions in 8051.	8		
		OR			
10.	a)	Explain detail memory organization of microcontroller 8051.	8		

b) Write short notes on SCON and SMOD registers.

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