Paper / Subject Code: 38975 / Microprocessor

1T01874 - S.E.(Computer Science & Engineering (Artificial Intelligence and Machine Learning))(Choice Based) (R-2019-20)('C' Scheme) Semester - IV / 38975 - Microprocessor QP CODE: 10028047 DATE: 19/05/2023

		Duration: 3hrs [Max Marks:80]	
N.	B. :	(1) Question No 1 is Compulsory.	
		(2) Attempt any three questions out of the remaining five.	
		(3) All questions carry equal marks.	
		(4) Assume suitable data, if required and state it clearly.	
1		Attempt any FOUR	[20]
	a	Explain the following instructions: STOSB, DAA related to 8086.	
	b	Discuss in brief the protection mechanism of 80386DX	300
	c	Explain the maximum mode of 8086	
	d	Explain in brief cache organization of Pentium processor	
	e	Write an assembly language program for 8086 to exchange contents of two	
		memory blocks	
2	a	Draw the timing diagrams for Read and Write operations in minimum and	[10]
		maximum mode	
	b	Explain hyper threading technology and its use in Pentium 4	[10]
3	a	Interface DMA controller 8257 with 8086 MP. Explain different data transfer	[10]
5	a	modes of 8257 DMAC	[10]
	h	Write an ALP for 8086 to reverse a string of 10 characters.	[10]
	U	With all TEE for 6000 to reverse a string of 10 characters.	[10]
4	a	Compare 80386, Pentium 1, Pentium 2 and Pentium 3 Processor.	[10]
	b	Explain MESI protocol	[10]
5	a	Explain the Register organization of 80386.	[10]
	b	Explain the Initialization command words (ICWs) and Operational command	[10]
		words(OCWs) of the 8259 PIC.	
6	a	Design 8086 microprocessor-based on following Specifications:	[10]
		1. MP 8086 working at 10MHz minimum mode.	[-"]
	S. S.	2. 32 KB ROM using 8 KB Devices	
		3. 16 KB RAM using 4KB chips	
	b	Explain 8255 with a block diagram and its operating modes	[10]
	4	***********	r - J

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