Enroll	ment l	No: Exa	m Seat No:	
		C. U. SHAH UNI	VERSITY	
		Winter Examinat		
		vvintei Examina	1011-2021	
Subjec	t Nan	ne: Advanced Micro-Processors		
Subjec	t Cod	e: 4TE05AMP1 Bra	nnch: B.Tech (CE)	
Semest	ter: 5	Date: 13/12/2021 Tin	ne: 11:00 To 02:00	Marks: 70
Instruc	tions:			
		of Programmable calculator & any other ele	ectronic instrument is pr	ohibited.
		uctions written on main answer book are st	•	
		v neat diagrams and figures (if necessary) a	t right places.	
(4)	Assu	me suitable data if needed.		
Q-1		Attempt the following questions:		(14)
	,	Define the term mnemonics.		
	,	Define the term instruction.		
		Define the term microprocessor.		
	,	Define the term word.		
		Why data bus is bidirectional?	of a 1VD mamany ahin	ia airran
	f)	The memory address of the last location as FBFF H. Specify the memory map.	of a 1KB memory cmp	is given
	g)	If the memory chip size is 2K X 8, how n	nany chins are required:	to make
	5)	up 16K bytes of memory?	nany emps are required	10 make
	h)	What is pipelining?		
		If the SS register contains 3000H a	and the SP register of	contains
	,	2400H.What is the physical address?	S	
	j)	What are the controlling flags in 8086 µP	?	
	k)	What is the special use of CX register in 8	•	
	l)	Which 8086 registers are used as memory	pointer?	
	m)	What is an instruction queue?		
	n)	Which group of instructions does not affe	ct flags?	
Attemp	pt any	four questions from Q-2 to Q-8:		
Q-2		Attempt all questions		(14)
~ -	a)	Draw and explain in brief the internal arch	nitecture of 8085 µP.	07



b) How many machine cycles are required to execute STA 3050h

b) Write an assembly language programming in 8085 to prove De Morgan's

a) Explain with examples different arithmetic instructions of 8085 μ P.

instruction? Draw compete timing diagram of it.

Attempt all questions

laws.

Q-3

07

(14)

07

07

Q-4		Attempt all questions	(14)
	a)	Draw the internal architecture of 8086 µP. Explain in detail BIU.	07
	b)	Explain in detail with diagram maximum mode of 8086 µP.	
Q-5		Attempt all questions	(14)
	a)	Enlist various addressing modes of 8086 µP and explain in brief each of	07
		them with examples.	
	b)	Explain in detail real and protected virtual address mode of 80286 μP.	07
Q-6		Attempt all questions	(14)
	a)	Explain with diagrams and examples different rotate and shift instructions of 8086 µP.	07
	b)	•	07
Q-7		Attempt all questions	(14)
	a)	List 80386 descriptor table registers? Explain any two descriptor table registers.	07
	b)	Draw and explain in detail register set of 80386 Microprocessor.	07
Q-8		Attempt all questions	(14)
	a)	Explain the basic concept of 80386 paging system.	07
	b)	Explain the Hyper Threading and core-2-duo regarding Intel Pentium processor.	07

