Deat 110	Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

Subject Name: Advanced Microprocessors

Time: 02.30pm - 05.00pm

B.E. - SEMESTER – VIII EXAMINATION – OCTOBER 2012 Subject Code: 181104 Date: 29/10/2012

Total Marks: 70

Instru	ictio	ns:	
	1. At	tempt any five questions.	
		ake suitable assumptions wherever necessary.	
:	3. Fi	gures to the right indicate full marks.	
Q.1	(a)	Discuss the internal architecture of 8086 microprocessor. Compare 8086 and 8088 microprocessors in terms of their architecture and pin configuration.	07
	(b)	(i)What are advantages of memory segmentation in 8086? (ii)Discuss the real mode addressing. (iii)If CS=3499H & IP=2500H in 8086 find logical address, physical address, lower & upper ranges of code segment.	07
Q.2	(a)		07
	(b)	With the help of suitable block diagram explain how 8086 behaves in maximum mode. Draw the write cycle timing diagram for maximum mode. OR	07
	(b)	What do you understand by absolute decoding ?How is a word accessed in 8086?	07
Q.3	(a)	Write an assembly language program in 8086 to arrange a given array of numbers in ascending order.	07
	(b)	Write an assembly language program in 8086 to reverse a string OR	07
Q.3	(a)	What are hardware features of 80286 microprocessors? Explain following instructions (i)BOUND (ii)LEAVE (iii)INS	07
	(b)	Write an assembly language program in 8086 to generate Fibonacci series.	07
Q.4	(a)	Describe in detail with suitable formats how linear address is converted into physical address in reference to 80386 microprocessor.	07
	(b)	Write an assembly language program in 8086 to subtract two 32 bit numbers. OR	07
Q.4	(a)	What are the various ways of segment privilege level protection in 80386 microprocessor? Explain each field of descriptor table.	07
Q.4	(b)		07
Q.5	(a)	(i) List the special features of Pentium processors (ii)How memory system is arranged in Pentium & Pentium Pro microprocessors?	07
	(b)	Explain the function of following pins (i)IGNNE (ii)ADS (iii)LOCK (iv)RESET (v)SMI (vi)FERR (vii)A20 OR	07
Q.5	(a)		07
	(b)	Discuss the difference between 80486SX & 80486DX. Explain EFLAG register of 80486.	07
