Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII • EXAMINATION – WINTER • 2014

Subject Code: 181104 **Date: 29-11-2014**

Subject Name: Advanced Microprocessors

Time: 02:30 pm - 05:00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	(i) What is the main difference between 8086 and 8088 microprocessors?	**02**
		(ii) What do you mean by the term assembler directives?	**02**
		(iii) What are the advantages of segmentation in 8086?	**03**
	(b)	Explain following instructions. (i) LOCK (ii) JNS (iii) XLAT (iv) STI	**07**
Q.2	**(a)**	In how many functional groups we can divide the 8086 instructions? List each functional group with one example of each.	**07**
	(b)	Short note on 8086 memory banks.	**07**
		OR	
	(b)	Explain block diagram of clock generator 8284.	**07**
Q.3	**(a)**	Explain the function of following pins of 8086. (i) Ready (ii) INTR (iii) S3 and S4 (iv) NMI (v) RESET (vi) HLDA (vii) QS_1 and QS_0	**07**
	(b)	Develop assembly language program that uses the REPEAT-UNTIL construct to copy the contents of byte sized memory Block-A into byte sized memory Block-B until a 00H is moved.	**07**
		OR	
Q.3	**(a)**	(i) Reentrant and recursive procedure. (ii) Short note on macro.	**07**
	(b)	Write assembly language program to find minimum number from TEN bytes of array.	**07**
Q.4	**(a)**	Describe the interrupts and interrupt response of an 8086 family processor.	**07**
	(b)	Write assembly language program to convert given string from uppercase to lowercase.	**07**
		OR	
Q.4	**(a)**	Discuss 8086 loop instructions and how they are useful to generate delay?	**07**
	(b)	Write assembly language program to find number of ones in given byte.	**07**
Q.5	**(a)**	(i) Contrast the Pentium with the Pentium Pro Microprocessor. (ii) List the special features of Pentium processors.	**07**
	(b)	Write short note on 80486 Microprocessor.	**07**
		OR	
Q.5	**(a)**	Explain Memory Management in 80386 Microprocessor.	**07**
	(b)	Explain basic block diagram of 80186.	**07**

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