Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI- EXAMINATION – SUMMER 2016

Subject Code:160805 **Date:11/05/2016**

Subject Name:Advanced Microprocessors

Time: 10:30 AM to 01:00 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)**	Write down the difference between 8-bit Microprocessor & 16-bit microprocessor.	**07**
	(b)	Explain the Internal Architecture of 8086 Microprocessor.	**07**
Q.2	**(a)**	(i) Which are the advantages of segmentation?	**03**
		(ii)What are the interrupt vector addresses of the following interrupts in the 8086 IVT? (a) INTO (b) NMI (c) INT 20 (d) INT 32	**04**
	(b)	Briefly describe memory bank of 8086 Microprocessor.	**07**
		OR	
	(b)	Explain the typical configuration of 8086 Microprocessor Maximum mode.	**07**
Q.3	**(a)**	What is the difference between directive and instruction? Explain the following directive (i) SEGMENT (ii) OFFSET (iii) EQU (iv)DD(v)PTR	**07**
	(b)	Explain Processor Control Instructions of 8086 microprocessor with example.	**07**
		OR	
Q.3	**(a)**	Write a program to find summation of first 5 even numbers which are stored in memory	**07**
	(b)	Write a program to transfer block data from one memory location to another memory location. (with and without Overlapping).	**07**
Q.4	**(a)**	Describe interrupt priority table also write details of type-0, type-1 & type-2 interrupt of 8086 Microprocessor.	**07**
	(b)	Write an assembly language program which produce a packed BCD byte from 2 ASCII –encoded digits and result should be stored in AL register.	**07**
		OR	
Q.4	**(a)**	Explain memory interfacing of 8086 microprocessor.	**07**
Q.4	**(b)**	What is MACRO? How it differs from Procedure? Explain use of macro with one simple program.	**07**
Q.5	**(a)**	What is the Multiprocessing System? Write Applications of Multiprocessing system.	**07**
	(b)	Draw the block diagram of coprocessor and explain each unit.	**07**

OR

Q.5	**(a)**	Describe Memory mapped I/O and Direct I/O. Give the main advantage and main disadvantage of each.	**07**
	(b)	(i) Explain the segment register of 8086 Microprocessor and give the example to generate 20-bit physical address.	**04**
		(ii) Write down difference between 8086 Microprocessor and 8088 Microprocessor.	**03**