Seat No.:	Enrolment No.
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Subject Code:181104

Subject Name:Advanced Microprocessors

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII EXAMINATION - SUMMER 2016

Date:05/05/2016

		0:30 AM to 01:00 PM Total Marks:	70
ms	tructio 1. 2. 3.	Attempt all questions.Make suitable assumptions wherever necessary.	
Q.1	(a)	 (i) Explain Flag register. (ii) If CS=3000H & IP=2500H in 8086 find logical address, physical address, lower & upper ranges of code segment. (iii) What is status of CS and IP register when 8086 microprocessor is reset? 	07
	(b)	Draw and explain 8086 operating in minimum mode system. Also draw its read timing diagram cycles.	07
Q.2	(a)	Explain the function of following signals (i)DT/ \overline{R} (ii) \overline{DEN} (iii) $\overline{RQ/GT}$ (iv) \overline{BHE}	07
	(b)	List different string instruction and explain them. OR	07
	(b)	Write an assembly language program to reverse 32 bit number.	07
Q.3	(a)	Design an interface between 8086 CPU and two chips of 16 x 8 EPROM and two chips of 32k x 8 RAM. Select the starting address of EPROM F80000H. The RAM address must start at 00000H.	07
	(b)	Explain following: (i) LOOP (ii) PTR (iii) XLAT (iv) WAIT OR	07
Q.3	(a) (b)	Write an ALP to find weather a given string is palindrome or not? State difference between 8086 and 8088 microprocessor? Draw typical maximum mode 8088 system.	07 07
Q.4	(a) (b)	What is interrupt? Explain interrupt vectors and vector table in detail. Describe in detail with suitable formats how linear address is converted into physical address with reference to 80386 microprocessor. OR	07 07
Q.4	(a)	State different descriptor table .explain Local and Global Descriptor table in detail for 80286.	07
	(b)	Write short note on 80486 microprocessor.	07
Q.5	(a)	What is virtual mode addressing? What are the steps taken in moving to protected mode from real mode?	07
	(b)	Draw Pentium system architecture and explain its pipeline mechanism. OR	07
Q.5	(a)	Describe in detail the differences between Pentium II, Pentium III, Pentium 4	07
	(b)	and Core 2 microprocessors.Explain the following terms.(i) Task Privilege (ii) Descriptor Privilege (iii) Selector Privilege.	07
