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

BE - SEMESTER-V EXAMINATION - WINTER 2015

Su	bject	Code: 150701 Date:15/12/2015	
Subject Name: Advance Processors Time: 10:30am to 1:00pm Instructions:		0:30am to 1:00pm Total Marks: 70	
		Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Draw and write a brief note on 8086 architecture. Explain various addressing modes supported by 8086.	07 07
Q.2	(a) (b)	Write a note on 8086 in maximum mode. Write an assembly language program in 8086 that defines a string and counts the occurrence of a given character in the string. OR	07 07
	(b)	Write an assembly language program in 8086 that evaluates $1! + 2! + 3! + + n!$ for a given n where factorial is calculated by a near procedure.	07
Q.3	(a) (b)	Explain the instructions: 1. LEA 2010H 2. DIV BX 3. XLAT What is the difference bet Near and Far procedures? Explain the parameter passing methods with example. OR	06 08
Q.3	(a) (b)	Explain the assembly directives: 1. ASSUME 2. ORG 3. EXTRN What is an Interrupt? Explain which interrupts are supported by 8086 along with the priorities, interrupt vector table and steps to execute an Interrupt service routine.	
Q.4	(a) (b)	What is Segment Descriptor? Explain the format of segment descriptors. Explain the basic concept of 80386 paging system. OR	07 07
Q.4	(a) (b)	Write a brief note on Virtual 8086 Mode. Explain Pentium Processor Architecture.	07 07
Q.5	(a) (b)	Explain the architecture of SUN SPARC processor. Discuss features of RISC and CISC and differentiate them. What is Register Window?	07 07
Q.5	(a)	OR Explain Task State Segment (TSS) and Task Register (TR) in 80386. Also explain various ways of task switching.	07
	(b)	Discuss new features of 80486 compared to 80386. Also explain its functional units.	07
