B. Tech Degree VI Semester Examination April 2011

CS 604 MICROPROCESSOR SYSTEM DESIGN
(2002 Scheme)

Time : 3 Hours   Maximum Marks : 100

I.	(a)	Explain the minimum mode and maximum mode operation of 8086.	(12)
	(b)	How are the different interrupts are managed in 8086?	(8)

OR

II.	(a)	Compare 8086 and 80286 microprocessors.	(8)
	(b)	Give a detailed explanation of 8086 architecture with a neat block diagram.	(12)

III.	(a)	Explain real, protected virtual modes of 80386.	(12)
	(b)	Explain the special 386 registers.	(8)

OR

IV.	(a)	Explain the procedures of converting linear address of 80386 into physical address.	(10)
	(b)	Explain the architectural difference between 80486 and 80386 microprocessors.	(10)

V.	(a)	Explain super scalar architecture of the Pentium processor.	(10)
	(b)	List down major features of AMD Athlon 64.	(10)

OR

VI.	(a)	Compare RISC and CISC system.	(10)
	(b)	Describe the operations of the branch prediction logic in Pentium.	(10)

VII.	(a)	What is the significance of interrupt number in the INT instruction?	(4)
	(b)	How do you differentiate DOS function call and BIOS function call?	(6)
	(c)	Write a program to check the string in 'palindrome or not' stored in memory location.	(10)

OR

VIII.	(a)	Write a program in 8086 assembly language to check whether the number is perfect square or not.	(10)
	(b)	What are the different classifications of instructions of 8086? Give brief explanation of each group with typical examples.	(10)

IX.	(a)	Explain the working principles of hard disk and floppy disk drive.	(8)
	(b)	Explain the use of CMOS memory in personal computer.	(6)
	(c)	Describe the characteristic of VGA system.	(6)

OR

X.	(a)	Write short notes on :	
		(i) PCI	
		(ii) SCSI	
		(iii) SMPS	
		(iv) VART	(12)
	(b)	Differentiate SCSI and IDF hard disk drives.	(8)

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