BTS(C) – V – 06 – 052 (D)

B.Tech. Degree V Semester Examination, November 2006

EC/EB 503 ADVANCED MICROPROCESSORS AND MICROCONTROLLERS

(2002 Admissions onwards)

Time: 3 Hours Maximum Marks: 100

I	a)	Explain the architecture of 8086 with block diagram.	(15)
	b)	How the 20 bit physical address is generated in 8086?	(5)
		OR	
II	a)	Explain the memory organisations of 8086.	(8)
	b)	Compare 8056 and 8088 microprocessors.	(4)
	c)	Explain software and hardware interrupts in 8086.	(8)
III	a)	Explain the following instructions: (i) AAA (ii) XLAT (iii) SAR (iv) RRC (v) SCASB	(10)
	b)	Write an assembly language program to check a given string is palindrome or not.	(10)
		OR	
IV		Write ***short notes*** on: (i) Assembler (ii) Linker (iii) Locator (iv) Debugger (v) Emulator	(20)
V	a)	Explain the special registers in 80386.	(10)
	b)	Explain the virtual memory management in 80386.	(10)
		OR	
VI	a)	What do you mean by virtual 8086 mode?	(5)
	b)	What are the different protection mechanisms implemented in 8086?	(10)
	c)	Compare 80386 and 80486 microprocessors.	(5)
VII	a)	What do you mean by super scalar architecture?	(6)
	b)	Explain the cache organisation in Pentium II architecture.	(6)
	c)	Compare Pentium and Pentium pro architecture.	(8)
		OR	
VIII		Explain the architecture of a RISC processor. Compare it with CISC.	(20)
IX	a)	Explain the architecture of 8051 micro controller.	(10)
	b)	What are the different addressing modes available in 8051?	(10)
		OR	
X	a)	How a DAC can be interfaced to a micro controller?	(8)
	b)	Write ***short notes*** on: (i) RS 232 (ii) IEEE 488 (iii) USB	(12)

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