(3 Hours) **[80 Marks]**

N.B. 1) Question No. 1 is compulsory.

2) Attempt any **three** questions out of the remaining.

3) Assume suitable data wherever necessary and state them clearly.

Q. 1	a) Explain modes of 8253 PIT(Programmable Interval Timer).	5
	b) Differentiate between c language and assembly language.	5
	c) Explain memory paging mechanism in 80386.	5
	d) Explain Superscalar Operation of Pentium processor.	5
Q.2	a) Explain maximum mode configuration of 8086 microprocessor.	10
	b) Explain the assembler directives of the 8086 microprocessor.	10
Q.3	a) Explain the MESI model of the Pentium Processor in detail.	10
	b) Write an assembly language program to find the largest number from the list.	10
Q.4	a) Explain Interrupt Vector Table (IVT) in detail.	10
	b) Explain Partial and absolute decoding techniques related to memory interfacing of 8086.	10
Q.5	a) Explain 8086 architecture in detail.	10
	b) Draw and explain the block diagram of 8255 Programmable Peripheral Interface (PPI) with control word formats.	10
Q.6	Explain the following:	
	i) Memory segmentation of 8086 microprocessor	5
	ii) Interrupt Service Routine (ISR)	5
	iii) Draw and explain the timing diagram for Memory write machine cycle in minimum mode.	5
	iv) Compare the real and protected mode of the 80386 microprocessor.	5

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