



Duration: 3hrs

Max Marks:80

- Q.1 (a) Design 8086 microprocessor-based on following Specifications: 10
1. MP 8086 working at 10MHz minimum mode.
2. 32 KB ROM using 8 KB Devices
3. 16 KB RAM using 4KB chips
- (b) Draw and explain Write operation and Read operation Timing diagram of 8086 Processor in Maximum mode. 10
- Q.2 (a) Explain the Initialization command words (ICWs) and Operational command words(OCWs) of the 8259 PIC. 10
- (b) Explain the interrupt structure of the 8086 processor(TVT) and differentiate between Hardware and Software interrupts
- Q.3 (a) Comparison 80386 ,Pentium 1 ,Pentium 2 and Pentium 3 Processor 10
- (b) Write an assembly language program for searching a Character in a Given String.(Consider your own String) and Explain the following instructions: XLAT, DAA,LAHF,AAA related to 8086. 10
- Q.4 (a) Draw and explain Pentium 4: Net burst microarchitecture. 10
- (b) Explain MESI Protocol 10
- Q.5 (a) Draw and explain architecture of 8086. 10
- (b) Differentiate between real Mode , Virtual Mode and Protected Mode of 80386 Processor .Explain the Floating point Pipeline of Pentium Processor 10
- Q.6 (a) Explain Modes of 8255 with a neat block diagram. Show the CWR initialization. [10]
- (b) Write an ALP for 8086 to transfer the block of data.

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