

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(IVT) 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.  
(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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