

Duration: 3hrs

[Max Marks:80]

- Q.1 (a) Design 8086 microprocessor-based on following Specifications: 10
1. MP 8086 working at 8MHz minimum mode.
 2. 64 KB EPROM using 32 KB Devices
 3. 64 KB SRAM using 16KB device
- (b) Explain Addressing modes of 8086 microprocessor. Explain Programming Model of 8086. 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 10
- 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: LODSB, NOP,,RCR,CLR related to 8086. 10
- Q.4 (a) List the features of Pentium 4 processor. Explain 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 8259. 10
- (b) Write an ALP for 8086 to transfer the block of data. 10
