

(REVISED COURSE)

(3 Hours)

[Total Marks: 80]

Note: 1) Q.1 is compulsory**2) Answer any 3 out of remaining questions**

- Q.1 (A) Explain the function of SID, TRAP, ALE, and AD0-AD7 pins of processor 8085. (5)
- (B) Write features of 8087 math co-processor. (5)
- (C) Explain advantages of memory segmentation (5)
- (D) Write control word of 8255 to initialize port A as input port, port B and C as output port, group A in mode 0 and group B in mode 1 (5)
- Q.2 a) What are different types of interrupt supported by 8086 and explain IVT. (10)
- b) Draw and explain the architecture of 80286 processor. (10)
- Q.3 a) Draw and explain the interfacing of Math co-processor with 8086. (10)
- b) Explain Minimum mode of 8086 microprocessor. Draw timing diagram for write operation in Minimum mode. (10)
- Q.4 a) Design an 8086 based system with following specifications. (10)
- 8086 CPU working at 8MHz
 - 16 KB EPROM using 8K device
 - 32 KB SRAM using 16K device
- b) Describe the importance of 8257 DMA controller. Explain method of interfacing DMA controller with 8086 microprocessor. (10)
- Q.5 a) Write a programme to set up 8253 as square wave generator with 1 ms period if input frequency of 8253 is 1 Mz (10)
- b) Explain Bit Set Reset mode of 8255 with application. (10)
- Q.6 a) Write a program for 8086 to find out the maximum number from the array of 10 numbers. (10)
- b) Draw and explain interfacing of ADC 0808 with 8086 Microprocessor using 8255. (10)