Q.P.Code: 016749

(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 HOLD, HLDA , ALE, and AD0-AD7 pins of processor 8085. (5)

(B) Write features of 80286 microprocessor. (5)

(C) Explain memory segmentation of 8086. (5)

(D) Write control word of 8255 to initialize port A as input port, port B and C as output port, group A and B in mode 0 (5)

Q.2 a) What are different types of interrupt supported by 8086 and explain IVT. (10)

b) State purpose of interfacing 8259(PIC) to 8086. Explain interfacing of 8086(minimum mode) and 8259(single mode) (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 Read operation in Minimum mode. (10)

Q.4 a) Design an 8086 based system with following specifications. (10)

i. 8086 CPU working at 8MHz
ii. 32 KB EPROM using 16K device
iii. 32 KB SRAM using 16K device

b) Explain different modes of operation of 8257 DMA controller. (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 in detail strobed input output mode of 8255. (10)

Q.6 a) Write a program for 8086 to find out the maximum number from an array of 10 numbers. (10)

b) Draw and explain interfacing of DAC 0808 with 8086 Microprocessor using 8255. Write a program to generate the square wave. (10)
