(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)

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

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