

(3 Hours)

Max Marks: 80

- Note:**
1. Question No. 1 is compulsory.
  2. Out of remaining questions, attempt any three questions.
  3. Assume suitable additional data if required.
  4. Figures in brackets on the right hand side indicate full marks.

1. (A) Explain interrupt pins of 8085. (05)  
 (B) Explain in brief about programmable interrupt controller 8259. (05)  
 (C) Explain advantages of memory segmentation of 8086. (05)  
 (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. (05)
2. (A) Explain minimum mode of 8086 microprocessor. Draw timing diagram for read operation in minimum mode. (10)  
 (B) Write a program to set up 8253 as square wave generator with 1 ms period if input frequency of 8253 is 1 MHz. (10)
3. (A) Draw and explain interfacing of DAC 0808 with 8086 microprocessor using 8255. Write a program to generate square wave. (10)  
 (B) Explain 8086 interrupt structure. (10)
4. (A) Describe in brief and compare architecture of 80286 and 80486 microprocessor. (10)  
 (B) Explain Modes of 8254 Timer/Counter peripheral IC with the help of timing diagram. (10)
5. (A) Draw and Explain interfacing of Math co-processor with 8086. (10)  
 (B) Explain addressing modes of 8086 microprocessor (10)
6. (A) Explain different modes of operation of 8257 DMA controller. (10)  
 (B) Discuss the functions of general purpose registers of 8086. Explain the function of each register and instruction support for these function. (10)

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