(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 string addressing mode of 8086   **(05)**

   (C) Explain 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) Draw and explain timing diagram for read operation of 8086 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 ADC 0808 with 8086 microprocessor using 8255.   **(10)**

   (B) Explain 8086 interrupt structure.   **(10)**

4. (A) Describe in brief architecture of 80286 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 interfacing of 8086-8259   **(10)**

6. (A) Explain interfacing of 8086 with 8257 DMA controller.   **(10)**

   (B) Explain how 64 KB EPROM can be interfaced with 8086 that operates at frequency of 10 MHz using 8 KB device.   **(10)**