

(3 Hours)

[Total Marks: 100]

N.B.

- Question No. 1 is compulsory.
 - Attempt any four questions from the remaining six questions.
 - Assume suitable data if necessary.
 - Figures to the right indicate full marks.
1. A. Write short note on Mode 1 of 8053 (Timer). 05
 B. Briefly explain addressing modes of 8086. 05
 C. Describe BSR mode of 8255. 05
 D. Explain hardware interrupts of 8086. 05
 2. A. What is segmentation? Discuss merits and demerits of segmentation. 10
 B. Explain how you will generate clock and reset signal with neat diagram. 10
 3. A. Explain, with neat block diagram, loosely coupled microcomputer system. 10
 B. Explain role of 8288 in 8086 based system. 10
 4. A. What is bus arbitration? Discuss different bus arbitration schemes. 10
 B. Draw and explain block diagram of PIC 8253. 10
 5. A. Draw and explain block diagram of 8255. 10
 B. Draw and explain block diagram of interrupt controller 8259. 10
 6. A. Explain different operating modes of DMA controller 8237. 10
 B. Explain registers of 8086. 10
 7. Write short note on
 - A. IEEE 488 05
 - B. String instructions of 8086 05
 - C. RS232 05
 - D. Mixed mode programming 05