

Time Duration: 3 hrs.

Max Marks: 80

Note

- Q.1 is compulsory
- Solve any 3 questions out of the remaining questions
- Figures to the right indicate full marks

Q.1 Solve any 4

- List the prominent features of super-scalar architecture. (5)
- State advantages of segmentation in 8086. (5)
- State the significance of queue in pipelining in 8086. (5)
- Explain the significance of following pins in 8086.
 - INTR
 - TEST*
 - DEN*
 - BHE/S7
 - ALE (* indicates bar) (5)
- Explain memory banking in 8086. (5)

- Draw and explain minimum mode operation of 8086. (10)
- Draw and explain timing diagram for i) read ii) write cycle in 8086. (10)

- Explain different addressing modes of 8086 with example. (10)
- Explain interrupt structure in 8086 (10)

- Show interfacing of 8259 with 8086 in single mode and explain significant pins. (10)
- Write a program to blink port C bit 2 of 8255. Assume address of CWR of 8255 as 83H. Use bit Set/Reset mode. (5)
- Explain any 2 operating modes of DMA 8257. (5)

- Draw and explain interfacing of 8086-8087 math-coprocessor. (10)
- Write a program in 8086 to exchange block of data consisting of 5 bytes at 1000H and 02000H using string instructions. (5)
- Explain following instructions in 8086. (5)
 - LOOPE/ LOOPZ
 - JE/JZ
 - Call

- Write short notes on any 4 (20)
 - DOS interrupts.
 - Intel Pentium processor – Branch Prediction Logic
 - Mode 1 operation of 8255PPI
 - ICW's and OCW's in 8259
 - Operation of DMA controller
