

**QP Code : 5413**

(3 Hours)

Total Marks: 80

Note: Q. 1 is compulsory and answer any 3 out of remaining questions.

- Q1. A) Explain the function of following pins of microprocessor 8085. (5 Marks)  
a) SOD/SID      b) ALE      c) HOLD
- B) What are features of 80386 microprocessor? (5 Marks)
- C) Explain interrupt pin of 8085 microprocessor. (5 Marks)
- D) Differentiate between memory mapped I/O and I/O mapped I/O (5 Marks)
- Q 2 a) Explain different addressing modes of 8086 microprocessors. (10 Marks)
- b) What is 8087 math coprocessor? Explain method of its interfacing with 8086 microprocessor. (10 Marks)
- Q 3) a) Describe the importance of DMA controller. Explain method of interfacing 8057 DMA controller with 8086 microprocessor (10 Marks)
- b) What is data acquisition system? Explain 8086 based data acquisition system. (10 Marks)
- Q4. Design 8086 microprocessor based system using minimum mode with the following specifications.
- I) 8086 microprocessor working at 10 MHz  
II) 64 kb EPROM using 16k devices  
III) 32kb SRAM using 16k devices
- Clearly show memory map with address range. Draw a neat schematic (20 Marks)
- Q5.a) Write a program for 8086 microprocessor for arranging given numbers in ascending order and store the results in memory location from 08000H onwards (10 Marks)
- b) Explain interrupt structure of 8086. (10 Marks)
- Q 6 a) Explain the architecture of Pentium microprocessor. (10 Marks)
- b) Explain the function of analog to digital converter 0809 and describe its interfacing method with 8086 microprocessor. (10 Marks)