

Q1: Attempt any four parts:

1. Give a short note on evolution of microprocessor.
2. Draw the basic block diagram of microprocessor and explain the function of each block in brief.
3. Explain all types of semiconductor memories in brief.
4. Discuss the organization of semiconductor memory and advantages and disadvantages of SRAM over DRAM.
5. Explain the sequential and parallel types of memory with the help of suitable example.
6. Draw and explain the timing and control unit.

Q2 Attempt any four parts:

1. Draw the basic architecture of 8085 microprocessor.
2. Explain the pin diagram of 8085 microprocessor.
3. Explain the various addressing modes of 8085 microprocessor.
4. Explain the following instruction of 8085 microprocessor.
 - a) ADI data
 - b) LXI B, 02H
 - c) DCRC
 - d) RLC
5. Write an assembly language program for the addition of two decimal numbers using 8085 microprocessor.
6. Draw the timing diagram of memory read cycle in 8085 microprocessor.

Q3: Attempt any four parts:

1. Draw the functional block diagram of 8086 microprocessor using examples.
2. Explain the addressing modes of 8086 up using examples.
3. Explain the term memory segmentation in case of 8086 microprocessor.
4. Draw the timing diagram of INTA cycle in minimum and maximum mode of configuration.
5. Explain the following Signals.
 - a) RQ/GT
 - b) TEST
 - c) READY
6. Explain the following assembler directives:
 - a) ASSUME
 - b) PUBLIC
 - c) EQUATE
 - d) LABEL

e)EVEN

Q4: Attempt any two parts:

1. Explain analog to digital conversion process using the successive approximation method.
2. Explain the functional block diagram of 8225 and also explain its working.
3. Explain the working of 8257 DMA controller using its block diagram.

Q5: Attempt any two parts:

1. Draw and explain the basic architecture of Pentium processor.
2. Explain the additional features of 80186 microprocessor. What are the difference between 80386 and 80486 microprocessor?
3. Draw the architecture diagram of 80851 microcontroller and explain the difference between microprocessor and microcontroller.

