

## Question Bank

### UNIT:1

1. draw the maximum mode module of 8086 clearly showing address latches, transceivers, clock generator. neatly label the diagram. terminate unused pins properly.

2. Draw the interfacing diagram for 8086 based system (minimum mode) with the following specification.

-16 KB RAM

-8 KB EPROM

-8255 PPI in I/O address space

also show the required latches, buffers and decoder. draw the memory map for the above interface.

3. Explain the following 8086 signals:

-INTR

-DT/(R bar)

-RESET

-TEST (bar )

4. How does 8086 convert a logical address to physical address? explain with an example.

5. Explain with the suitable diagram how 8086 access a byte or word from EVEN and ODD memory banks.

6. State the differences between I/O mapped I/O and Memory mapped I/O.

7. Explain in detail the programmer's model of 8086

8. Draw the programmer's model of 8086/88 register set.

9. Explain with example, various addressing modes of 8086/88 microprocessor

### UNIT :2

1. Explain the difference between NEAR and FAR procedure of 8086 processor.

2. Explain the use of following instructions:

-XLAT

-DAA

-CMPSB

3. difference between CALL and JMP instruction of 8086 microprocessor.

4. write the addressing modes of 8086 with suitable example.

5. Explain with one example each various addressing modes of the 8086.
6. Describe any four assembler directives used in 8086 assembly language programming.
7. Write a program in 8086/8088 assembly language to convert string of character from uppercase to lowercase. Accept the string of length 8 characters from user.
8. Explain the various assembler directives used while defining the data segment of 8086/8088 microprocessor.
9. Differentiate between MACRO and PROCEDURE .
10. Write a program in MASM-86 assembly language to convert a two digit BCD number into HEX.

### **UNIT :3**

1. What does the CPU do when it receive an interrupt? How do you enable and disable interrupts in 8086.
2. Explain the command words/control words of 8259 in details.
3. With the help of block diagram explain various modes of operation of 8259 in details.
4. Explain type 0,1,2 interrupts found interrupt vector table of 8086/8088 microprocessor.
5. Describe the use of CAS0, CAS and CAS2 lines in a system with a cascaded 8259's.
6. What are the different modes of operation of the 8253 programmable timer? How does 8254 differ from 8253?
7. Which mode will you use to generate a square wave ? Give a flow chart to generate it on 8253.
8. Explain with neat waveform the mode 0 of the 8253 timer/counter.
9. Explain with the help of block diagram, functioning of 8253 in various programmable modes.
10. A 32-bit binary counter is to be implemented using timer/counter
  - i) design and explain the control word to meet above requirement
  - ii) Draw timing diagram of the mod(s) used.