

1. If the clock frequency of a 8085 Microprocessor is 2MHz, calculate the time required to execute the following two instructions MOV C, B and MVI B, 5BH. [3]

2. The memory address of the last location of 1K-Bytes of memory chip is given as FF00H. Specify the starting address. [3]

3. Compare the following instructions:

(i) MOV A,M and LDAX D

(ii) CMP B and SUB B [3]

4. The accumulator of an 8085 microprocessor contains C5H and carry is set. What will the accumulator and carry contain following each of the instruction given below?

(i) XRA A

(ii) ADI 9H

(iii) RRC [3]

5. Illustrate the data flow and list of events using a neat diagram when the instruction MOV C,A(Hex code 4FH) is fetched by the 8085 microprocessor from memory location 2005H. [10]

6. Write a program in assembly language to add two 16-bit numbers 6B98H and 7FC0H. [5]

7. Explain the instruction stepwise when the following program is executed:

MVI A, data

ADI 72H

JC Display

STA 2500H

HLT

Display: XRA A

STA 2500H

HLT

What will be the contents of memory location 2500H if data is

(i) 8FH

(ii) 0FH [5]

8. Write an assembly language program to subtract two 8-bit numbers (FCH and BDH) stored in memory locations 2005H and 2006H respectively using direct addressing mode. The difference is to be stored in memory location 2007H and Borrow(if any)in 2008H. [5]