

Chapters: 1-6, 9,10

Chapter 2:

Registers:

-describe the function of following registers: SI,DI, IP, FLAG bits: S, C, A

-2.13 : In real mode, show the start and end address of each segment located by these segment registers:

1234H

E000H

AB00H

Chapter 3:

Addressing modes:

-Describe the operation of following instructions:

MOV [BX+SI],BP

-3.33 : , 3.29

If EAX=00001000, EBX=00002000H and DS=0010H, what is the address accessed by following instructions:

MOV ECX, [EAX+EBX]

MOV [EAX+2*EBX],CL

MOV DH,[EBX+4*EAX+1000H]

Chapter 4:

PUSH and POP

STRING data transfers

4.36, 4.28

4.36:

a sequence of instructions that copies 12 byte from an area of memory addressed by SOURCE to another addressed by DEST

Chapter 5:

5.36, 5.51

5.36: a sequence of instructions that sets three leftmost bits of DX to zero without changing the other bits. Save the result in BH

Chapter 6:

Procedure calls .. conditional instructions

6.39, 6.24

6.24: store 00H into 150H location of Memory starting at extra segment location DATAZ.

Chapter 9:

-Pin descriptions: HOLD/HLDA, INT/INTA , DT/R, DEN

-Address demuxing: design an address decoder for activating memory in addresses between 00000H and 01FFF H

-Bus Timing:

Show the timing diagram for a read operation, include ALE, RD, DT/R, AD bus and CLK. Assume one Wait state

Chapter 10:

-Memory types and differences

-Draw connection diagram for memory chips, for example for TMS4016, for a given address range for a given address range.

-Address decoding and bus-low and high enabling

-Design the address decoders and WE signals for a 2 byte memory system, 64KW, address from 00000 to 0FFFFH. Use two 64KB memory modules.

Draw the connections for address bus, data bus, CS, WE ..