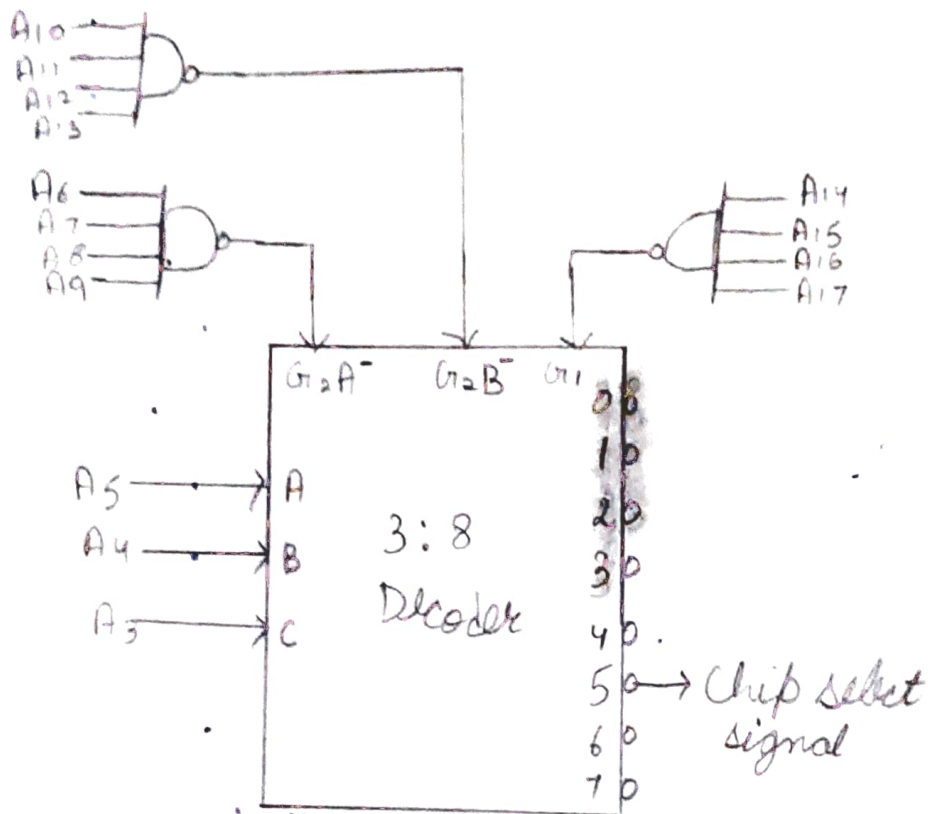


Q6 Interface 8253/54 with 8086 in memory mapped IO and write a program to initialize 8254 in mod 1 to read and load lower 8-bit only.

→ a)



b) 12H is the control word for 8253 with the counter in mode 1. Binary counter 0 is selected. Load lower 8-bits only. It latches the count and then stores it in register. So that it can be read. Let 05H is the lower 8-bit count.

Assuming that the addresses of the counters and CWR are:

3FFE8H = Counter 0
3FFEAH = Counter 1
3FFECH = Counter 2
3FFEEH = CWR

} Even

Also assuming that the content of the DS is 3000 and the corresponding logical addresses FFE8H, FFEAH, FFEC H and FFEE H.

Program -

MOV AL, 12H : Binary counter 0, mode 1
MOV [FFEEH], AL : Read/load lower 8-bits

MOV AL, 05 : lowers 8-bit count

MOV [FFEBH], AL

MOV AL, 02H : Binary counter 0, mode 1 counter latch

MOV [FFEBH], AL

MOV AL, [FFEBH] : LSB of counter

INT 03H