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CPE 185

Homework 6

1. What single 80x86 instruction is equivalent to the following 80x86 instruction sequence?

Assume the direction flag is reset.

MOV AL, [SI]

INC SI

**LODSB**

2. Which of the following I/O instructions are invalid?

(a) OUT 256,AL

(b) IN BL,AL

(c) IN AL,DX

(d) OUT DX,3CEO

**(a) port address > 255,**

**(b) destination must be accumulator,**

**(d) immediate data not allowed**

3. What is the DEBUG immediate mode command to input the byte from port 15H?

**I15**

4. Write an 80x86 instruction sequence that inputs data from port 57H, sets bits 6 and 7 without

changing the other bits, and outputs this data back to the same port.

**in a1,57 ; Read data**

**or al , cO; Set b i t s 6 and 7**

**out 57, a1 ;output data**

5. BIOS INT 16H, service 12H returns AX = 0080H. Which key on the system keyboard is

pressed?

**Insert**