

# 16.317: Microprocessor Systems Design I

Spring 2013

## Lecture 13: Key Questions

February 25, 2013

1. Describe the operation of the SETcc instruction. How can this instruction be used?
2. **Example:** Show the results of the following instructions, assuming that  
DS:100H = 0001H, DS:102H = 0003H, DS:104H = 1011H, DS:106H = 1011H,  
DS:108H = ABCDH, DS:10AH = DCBAH

What complex condition does this sequence test?

```
MOV    AX, [100H]
CMP    AX, [102H]
SETLE  BL
MOV    AX, [104H]
CMP    AX, [106H]
SETE   BH
AND    BL, BH
MOV    AX, [108H]
CMP    AX, [10AH]
SETNE  BH
OR     BL, BH
```

4. Describe the different ways of specifying jump targets.

5. **Example:** Given CS = 1200H, IP = 0100H, and EBX = 14000020H, what are the target addresses of the following jump instructions?

- JMP 08H
- JPE FFF0H
- JE BX
- JNZ EBX