

# **16.317: Microprocessor Systems Design I**

Spring 2012

## Lecture 17: Key Questions March 5, 2012

1. Describe the two general classes of jump instruction.
2. Describe the different ways of specifying jump targets.

3. **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

4. Given the instructions below, what are the resulting register values if:

- AX = 0010H, BX = 0010H
- AX = 1234H, BX = 4321H

What type of high-level program structure does this sequence demonstrate?

```
        CMP  AX, BX
        JE   L1
        ADD  AX, 1
        JMP  L2
L1:     SUB  AX, 1
L2:     MOV  [100H], AX
```