

16.317: Microprocessor Systems Design I

Spring 2014

Lecture 4: Key Questions

January 29, 2014

1. **Example:** Given the following register values:

- CS = 0x1000
- SS = 0x2000
- DS = 0x3000
- ES = 0x4000
- IP = 0x0100
- ESP = 0x0002FF00
- EBP = 0x0000F000
- ESI = 0x0001000E
- EBX = 0xABCD1234

What linear addresses correspond to the following logical addresses?

- CS:IP

- SS:SP

- SS:BP

- DS:SI

- ES:BX

2. Describe the different addressing modes specific to the x86 architecture.