

16.317: Microprocessor Systems Design I

Fall 2014

Lecture 5: Key Questions

September 12, 2014

1. Explain the operation of the XCHG instruction. What restrictions are placed on this instruction?
2. Explain the operation of the LEA instruction.

3. **Example:** Given the initial memory state below:

	Lo		Hi	
0x528000	50	88	31	A3
0x528004	B2	FF	0F	7D
0x528008	07	D0	BE	22
0x52800C	11	96	00	14

Show the results of the following short instruction sequence.

```
MOV    EAX, 528000h
MOV    EBX, [EAX+2]
XCHG   BL, BH
LEA     EDX, [EAX+8]
MOV     ECX, [EDX-3]
```

