## **16.216: ECE Application Programming** Fall 2014

Lecture 29: Key Questions November 17, 2014

1. a.	<b>Example:</b> Given an unsigned int, n, and a number, b, how would you Clear all bits of n?
b.	Clear the lower 16 bits of n (mask out lower bits)?
c.	Flip all bits of n?
d.	Flip bit b of n?
e.	Set bit b of n (i.e., make sure bit b is 1)?
f.	Clear bit b of n (i.e., make sure bit b is 0)?

- 2. Describe how, in general, you perform the operations below on a bit or range of bits:
- a. Setting bit(s) (desired bit(s) = 1, all others unchanged)

b. Clearing bit(s) (desired bit(s) = 0, all others unchanged)

c. Flipping bit(s) (desired bit(s) change from  $0 \rightarrow 1$  or  $1 \rightarrow 0$ , all others unchanged)

3. Describe how to extract a group of bits from a larger value.

4. Describe how to print hexadecimal values.