EECE.2160: ECE Application Programming
Spring 2018

Lecture 32: Key Questions
April 23, 2018

1. **Example:** Given an `unsigned int`, n, and a number, b, how would you:
a. 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.