# EECE.2160: ECE Application Programming

Spring 2017

Lecture 36: Key Questions
April 26, 2017

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→1 or 1→0, all others unchanged)

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

4. Describe how to print hexadecimal values.