

16.216: ECE Application Programming

Spring 2012

Lecture 9: Key Questions

February 10, 2012

1. **Example:** Given an unsigned int, n , and a number, b , how would you:
 - a. Flip bit b of n ?
 - b. Set bit b of n (i.e., make sure bit b is 1)?
 - c. 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. Explain how to set the field width, alignment, and padding characters for values printed using `printf()`.

4. Explain how to format hexadecimal values printed using `printf()`.