

16.216: ECE Application Programming

Spring 2014

Lecture 28: Key Questions

April 11, 2014

1. Describe how to represent decimal values in binary (base 2) and hexadecimal (base 16) and how to convert between those bases.

2. Describe the C bitwise operators.

3. Explain C bit shift operators and their uses.

4. **Example:** Evaluate each of the following expressions if you have the following unsigned int variables: $A = 7$, $B = 10$, and $C = 0xFFFFFFFF$
- a. $A \& B$

b. $A \mid \sim B$

c. $A \wedge C$

d. $A \ll 4$

e. $B \gg 5$

f. $A \mid (B \ll 2)$