

16.216: ECE Application Programming

Spring 2014

Lecture 7: Key Questions February 7, 2014

1. Explain the basic form of an `if` statement.
2. Describe how the expression in `if (<expression>)` is evaluated and show how conditions are evaluated, including multiple conditions in the same expression.

3. Describe how the statement—the actual code to be executed if the condition is true—is written for an `if` statement.

4. Show how multiple if statements can be nested together (`if/else if/else`).

5. **Example:** What does the following code print?

```
int main() {  
    int x = 3;  
    int y = 7;  
  
    if (x > 2)  
        x = x - 2;  
    else  
        x = x + 2;  
  
    if ((y % 2) == 1)  
    {  
        y = -x;  
        if ((x != 0) && (y != -1))  
            y = 0;  
    }  
    printf("x = %d, y = %d\n", x, y);  
    return 0;  
}
```

6. Discuss how to use `if` statements to check that a value falls within a desired range.