Midterm Study Guide

This is simply a guide of topics that I consider important for the midterm. I don't promise to ask you about them all, or about any of these in particular; but I may very well ask you about any of these, as well as anything we discussed in class, in the discussion section, or that is in the text.

1. Basics of programming
   a. Programming languages: high-level, low-level
   b. Syntax errors, semantic errors
   c. Debugging
   d. Programming in Python
       i. IDLE
       ii. Comments
2. Basics of Python
   a. Variable names
   b. Keywords
   c. Data types (integer, float, string, boolean)
3. Assignments (including simultaneous assignments)
4. Statements
5. Expressions
   a. Arithmetic operators; precedence
   b. Logical operators
   c. Relational operators and Boolean values
   d. Type conversion functions (`int`, `float`, `str`, `bool`)
6. Input and output
   a. `input` built-in function
   b. `print` built-in function
7. Loops
   a. `for` loop
   b. `range()`
   c. `while` loop
8. Conditional statements
   a. `if`
   b. `if ... else`
   c. `if ... elif ... else`
   d. Nested ifs
9. Functions
   a. Defining them
   b. Parameter lists and how values are passed from a calling function
   c. Returning a value: `return` statement
10. Interpreting error messages
11. Exceptions
    a. Catching them (`try ... except ... else ... finally`)
    b. Common exceptions