Study Topics for Midterm I, CMSC204

1. Five kinds of questions:
   a. T/F
   b. Multiple Choice
   c. Fill-in
   d. Given code, what is the result
   e. Given a specification, write the code
2. Exceptions
   a. three ways to deal with an exception:
      i. ignore it
      ii. handle it where it occurs
      iii. handle it an another place in the program
   b. what happens in each of these three ways
   c. when you create your own exception class, what is created
   d. what are checked and unchecked exceptions
3. Generic Classes
   a. What is a generic class
   b. What is legal syntax for using a generic class
   c. What happens when a client calls a generic method
4. Big-O
   a. Rank-order various orders of magnitude
   b. Find the Big-O of a polynomial
   c. Find the Big-O of an algorithm
5. Recursion
   a. Write a recursive method
   b. Identify the components of a recursive method
6. Linked Lists
   a. What are the types
   b. What data elements should be in the nodes
7. Restricted Structures
   a. Stack is a LIFO structure
   b. Queue is a FIFO structure
   c. What is meant by "restricted"