1. Files

(a) Reading and writing binary files The material we covered is spread throughout chapter 12. Another resource is the summaries of binary and text files found on http://menehune.opt.wfu.edu/CSC112
   i. Member functions (methods): open, close, read, write, fail, eof
(b) Reading and writing text files
   i. Member functions (methods): open, close, get, getline
   ii. Using the stream operators >> and <<

2. Arrays Fixed length arrays are covered in Chapter 5. Dynamically allocated arrays are covered in Chapter 10.1 and 10.2. The material from Chapter 10.3 (classes and dynamic arrays) is not included on the exam. C-style strings are covered in Chapter 9.1, and 9.2. The material from Chapter 9.3 (C++ string class is not included on the exam.

(a) Null-terminated character strings
(b) Dynamically allocated arrays
   i. Using new
   ii. Using pointers
   iii. Two dimensional arrays


   (a) Declarations
   (b) Accessing data members

4. Lists Lists (implemented using arrays) are discussed in Chapter 5.3, in the example handouts, and in Labs 7 and 8. Iterative binary search is discussed in Chapter 15 on p. 599.

   (a) Implementation using a structure
   (b) Ordered lists and un-ordered lists
   (c) Operations on lists
      i. Insert (ordered vs. unordered lists)
      ii. Delete (ordered vs. unordered lists)
      iii. Linear search (unordered lists)
      iv. Binary search (ordered lists)

5. Pointers Pointers are covered in Chapter 10.1 and 10.2.

   (a) Initializing
   (b) De-referencing
   (c) Pointer arithmetic

6. Problem solving skills