

## CPS 171 REVIEW SHEET Test 4 (Final Exam)

**NOTE: Chapter 17 and Chapter 13 Part 2 (strings) have been dropped for Fall 2000 term**

### Chapter 12

#### Arrays

declarations, size, the values of the subscripts  
assign values, input data, output array contents--particularly with the use of a for loop  
initialize --during compile time and run time  
parallel arrays – concept, declaration, use in a program  
arrays of structs or objects  
passing arrays as parameters during function calls--automatic by reference  
out of bounds range of subscripts or identifying the valid range  
const used in parameter list during function call

#### Multi-dimension arrays

Process by row or by column  
Declare, initialize, print out

**Exercises** Page 726 Quick Check nos 1-12, Page 729 Exam Preparation Exercises - any of these

### Chapter 13

#### Array based lists

Searching – sequential and binary  
Sorting  
- understand how the algorithms work, do not memorize the code!  
Insertion and deletion in a sorted list

**Exercises** Page 793 Quick Check nos 2-6, Page 795 Exam Preparation nos 1,4,5,6,7

Be able to write a program that deals with arrays and includes the following types of tasks  
inputs values, uses arrays, outputs values, reads from a data file, processes the array to perform a certain task

### Review topics from previous tests/chapters

- simple output, constants, precedence of operators e.g. +,-,\*,/,%
- if, if else statements and nesting of them
- while statements
- for statements
- functions and parameters
- structs and classes
- ethics of computer use