CSC 306 WEEK 8 STUDY GUIDE

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All tests are comprehensive: so be sure to review all previous study guides, particulary concepts of lexical analysis and parsing.

Constructors: copy constructors, default constructors, convert constructors.

Destructors.

Pointers. Dynamic memory allocation; use of `new` and `delete`, memory leaks and dangling pointers.

Use of vectors and maps in C++.

Enumeration types.

Polymorphism and virtual member functions, pure virtual functions; dynamic binding and static binding.

Principles of type checking and internal representation of programming language in interpeter implementation. Use of the concepts of an identifier table, variable table, string table, and statement table in interpreter implementation. The concepts of a location counter and program counter.

Use of object oriented concepts, inheritance and polymorphism in the internal representation of expressions and statements of programming language.

Understand the internal representation of primitive statements like input, output, and assignment, and composite statements like while loop, if statement, and switch statement. Understand the concept of jump table in the implementation of switch statements, and understand how to implement break and continue statements.