**Test II covers Chapters 9-16, but earlier C/C++ material will show up in the code in test questions**

**Classes**

Constructors and Destructors – when are they used and how they are written

Data members – Public and Private

Friend functions, const and static class members

Use of the “this” pointer in classes

**Operator overloading for a new class**

**Using C++ and C strings and string functions**

**Dynamic Memory management**

C and C++ memory management features

Using dynamic memory management in a new class

**Inheritance**

Using a base class and a derived class

Constructors, Destructors, and member functions

**Polymorphism**

Virtual and Pure Virtual Functions

Runtime vs. Compile time binding

Polymorphic processing and Downcasting

**Templates**

Function and class templates

Vector template in STL

**Stream I/O**

Formatting options, using get and put

**Exception Handling**

Use of try, catch, and throw