CS2400 Midterm Topics

Chapter 1

Terms, information questions
Von Neumann architecture
About C, C++ etc.

Chapter 2

Identifiers
C++ data types
Input and output
Escape sequences
Computations
Operators

+ , -, *, /, %, +=, -=, *=, /=, %=, ==, !=, <, <=, >, >=, 
&&, ||, !

3 control structures.
Selection control structure (if, if else, compound statements etc)
Loops – while and do while
Constant declarations

Chapter 3

Multiway if else statements
Switch statement (controlling expression and case labels, default etc)
Increment and decrement operators
for loops (including nested loops)
scope of a variable
Chapter 4

Predefined math functions

Write a single value returning function definition and a declaration.

Local variables and scope in functions.

How to call a function - (write a driver)

Write a single value returning function definition and a declaration.

Type casting

How to call a function - (write a driver)

Write a complete program with a function.

Black-Box analogy

Scope rule and local variables (call-by value parameters are local variables)

Procedural Abstraction

Function overloading (polymorphism)

Chapter 5

Write a void function definitions and declarations

Difference between call-by-value and call-by reference parameters

Write a SVR function as a void function

Types of values that can be passed as value and reference parameters

Write the output of a program with mixed parameters

Stubs and drivers

Chapter 6

File I/O

Do all the Self-Test Exercises
Types of questions:

- T/F, Multiple choice
- Short answers
- Evaluate expressions.
- Write expressions in C++ syntax.
- Write a loop.
- Predict the output of a loop and other statements
- Write SVR function to perform a specific task.
- Write a short program (with or without a SVR function)
- Show output generated by a program.