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.