**Environment:**

IDE: Clion IDE or Vs Code

Compiler: Cygwin 2.10.0

**Syllabus:**

**An Overview of Computers and Programming Languages  
Basic Elements of C++  
Control Structures I (Selection)  
Control Structures II (Repetition)  
User-Defined Functions I  
User-Defined Functions II  
Namespaces, the class string, and User-Defined Simple Data Types.  
Arrays**

**Notes:**

1. **Basics**
   * Console Out
   * Data Types
   * Variables
   * Console In
   * Strings
   * Constants
   * Basics Quiz - 5 soru
2. **Operators**
   * Assignment Operator
   * Arithmetic Operators
   * Compound Assignment Operator
   * Increment & Decrement Operators
   * Relation & Comparison Operators
   * Logical Operators
   * Conditional Ternary Operator
   * Comma Operator
   * Type Casting Operator
   * Bitwise Operators
   * sizeof Operator
   * Operator Precedence
   * Operators Quiz - 5 soru
3. **String Streams**
4. **Statements & Loops**
   * Conditional Statements
   * For Loop
   * While Loop
   * Do While Loop
   * Range-Based For Loop
   * GoTo Statement
   * Switch Statement
   * Statements & Loops Quiz - 5 soru
5. **Functions**
   * Functions
   * Function Article
   * Function Return Statement
   * Function Arguments Passed By Value
   * Function Arguments Passed By Reference
   * Function Parameter Default Values
   * Overloaded Functions
   * Function Templates
   * Namespaces
   * Functions Quiz - 5 soru
6. **Advanced Data Types**
   * Arrays
   * Multidimensional Arrays
   * References
   * Pointers
   * Delete Operator
   * Struct
   * Type Aliasing
   * Unions
   * Enumerators
   * Advanced Data Types Quiz - 5 soru
7. **Classes**
   * 01:Introduction To Classes
   * Class Access
   * Class Constructor
   * Class Pointers
   * Overloading Operators
   * This Keyword
   * Constant Objects
   * Getters and Setters
   * Static Variables
   * Static Functions
   * Template Classes
   * Class Destructor
   * Class Copy Constructor
   * Friend Function
   * Friend Class
   * Class Inheritance
   * Multiple Class Inheritance
   * Virtual Methods
   * Abstract Base Class
   * Classes Quiz - 5 soru
8. **Error Handling**