

C, C++ Syllabus:

C Language:

Topics	
1.	Fundamental <ul style="list-style-type: none"> • Introduction to programming languages • History of C • Compiler Vs Interpreter • Setting up the development environment (compiler, IDE, etc.) with plugin • Install code block in Windows • Writing and running your first C program. • Hello World Program in C
2.	C variables & Datatype <ul style="list-style-type: none"> • Identifiers in C • Variables and Datatypes • Constants • C comments • Type Casting
3.	Console IO Operations <ul style="list-style-type: none"> • Printf and Scanf • Unformatted IO Functions
4.	Operators And Expressions <ul style="list-style-type: none"> • Expressions and Arithmetic Operators • Relational and Logical Operators • Bitwise Operators
5.	Control Flow Statements <ul style="list-style-type: none"> • If Statement • Switch Statement • Unconditional Branching • While Loop • Do While Loop • For Loop • Nested Loop • Break and Continue • Goto Statement
6.	Arrays <ul style="list-style-type: none"> • Arrays Declaration and Initialization • Types of Arrays • Sample Programs using Arrays • Arrays as Function Parameters
7.	Strings <ul style="list-style-type: none"> • Introduction to Strings • Standard String Library Functions • Array of String • String Function Gets and puts
8.	Functions <ul style="list-style-type: none"> • Introduction and Writing Functions • Scope of Variables, Storage Classes, Pass by Value and reference • Recursion • Math Function

9.	Pointers <ul style="list-style-type: none">• Introduction to Pointers• Pointers as Function Parameter• Pointer Arithmetic• Pointers and Arrays Function Pointers
10.	File Handling <ul style="list-style-type: none">• Reading from and writing to files in C.• Working with file streams (fopen, fclose, etc.).
11.	Structures & Union <ul style="list-style-type: none">• Declaring and Instantiating Structures• Structure as Parameter and Pointer to Structure• Enumerated Data Type Union

C++:

Topics	
1.	Fundamental <ul style="list-style-type: none"> • C++ Introduction • Difference between C and C++ • C++ Feature • Variable, Data type • Keyword, Identifier • C++ Program syntax • Input & output in C++
2.	C++ Control Statement <ul style="list-style-type: none"> • If Else • Switch • Loop (for, do while, while) • Break Statement • Continue
3.	Array <ul style="list-style-type: none"> • Array in C++ • Array to function
4.	C++ Functions <ul style="list-style-type: none"> • C++ Function Parameters • Function Overloading • Recursion • Storage Classes
5.	C++ Object Oriented <ul style="list-style-type: none"> • Oops Concept • Object Class • Access Specifiers • Constructor • Copy constructor • Destructor • This pointer • Enumeration • Friend function • Math Function
6.	C++ Inheritance <ul style="list-style-type: none"> • Inheritance • Aggregation
7.	Polymorphism <ul style="list-style-type: none"> • Polymorphism • Overloading • Overriding • Virtual function
8.	Abstraction <ul style="list-style-type: none"> • Interface (Abstract Classes) • Data abstraction
9.	Exception Handling <ul style="list-style-type: none"> • Exception Handling • Try, Catch, final