# C AND C++ SYLLABUS



### ✤ Introduction

- Overview of C Language
- Where is it used
- Role of Interpreter
- Your First Program
- Role of Compiler
- Data Type
- How to declare Variables
- ASCII Code Table
- Type Casting
- Operators in C/C++
- Life Cycle of Integer
- Conditional Statement
- If else
- Ternary operator
- Switch case

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### ✤ Loops

- Loop Types
- for, while, do while

#### Array

- Array Types
- Single Dimensional array
- Double Dimensional array
- Single Character Array
- String
- Function

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#### Pointer

- Understanding Pointers
- Pointer expressions
- Pointer and Arrays
- Pointers and Character String
- Pointers to Functions
- Pointers and Structures Call By Reference Function

### Structure

- How to declare structure
- How to declare array in structure
- Structure pointer
- Union
- 🗲 Enum

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- ➢ File Management In C
- Introduction to File Management
- Opening/Closing a File
- Input/output operations on Files
- Error Handling During I/O Operations
- Command Line Arguments
- Structures And Unions
- Defining a Structure
- Advantage of Structure
- Dynamic Memory Allocation
- Introduction to Dynamic Memory Allocation
- ➤ Malloc
- Calloc
- ➢ Realloc
- ➢ Free
- Preprocessor
- 39.Macro Substitution
- File Inclusion
  - Computer Control Directives

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## C++ Syllabus

#### Introduction

- Difference Between C and C++
- Overview of C++ Language
- Where is it used
- Your First Program of C/C++
- Data Type
- How to declare Variables
- > ASCII Table
- Type Casting
- Operators in C/C++
- Life Cycle of Integer
- Conditional Statement
- Life Cycle of Integer
- Conditional Statement

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- ➢ If else
- Ternary operator
- Switch case
- > Loop
- for, while, do while
- > Array
- Single Dimensional array
- Double Dimensional array
- Single Character Array
- > String
- Function
- Pointer
- Pointer and Arrays
- Pointers and Character String
- Pointers to Functions
- Pointers and Structures Call By Reference Function
- Structure
- Input/output operations on Files
- Error Handling During I/O Operations
- Command Line Arguments

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### Object Oriented Programing

- Oops Concepts
- Class
- > Object
- Inheritance
- Method Overloading
- Method Overriding
- Static

### Constructor

- Type of Constructor
- Operator Overloading
- Polymorphism
- Friend's Function

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- ➤ Templates
- ➤ File Handling
- Exception Handling
- ➤ Graphics
- # and ## Operators in c
- String zing Operator (#)
- Automatic Storage Class
- Register Storage Class
- External Storage Class
- Restrict Keyword in C
- The mutable storage class specifier in C++ (or use of mutable keyword in C++)
- Understanding "volatile" qualifier in C/ set 2
- C++ program to illustrate use of "new" keyword

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