

## **C++ Programming Syllabus**

- Procedure v/s Object Oriented Programming
- Benefits of OOP's
- Different OOP's Features
- Data types, Variables
- Constants, Expressions
- Operators (Arithmetic, Logical, Relational)
- Operators (Conditional, Assignments)
- Type Conversion & Casting
- Control Structure (If, If-Else, Nested If-Else)
- Control Structure (Switch, While loop)
- Control Structure (For loop)
- Control Structure (Do While loop)
- Control Structure (Break, Continue)
- Control Structure (Nested Loops)
- Functions (Pass by value, Pass by reference)
- Functions Overloading
- Functions (Inline Functions, Friend Function)
- Classes & Objects (Class Definition, Public)
- Classes & Objects (Private)
- Classes & Objects (Protected Members)
- Constructor & Destructor (Characteristics)
- Default Constructor
- Constructor Overloading
- Parameterized Constructor, Destructor
- Copy Constructor, Operator Overloading
- Inheritance (Base & Derived Class)
- Single & Multilevel Inheritance
- Multiple, Hierarchical
- Hybrid, Multiple Inheritance
- Abstract Class, Virtual Base Class
- Virtual Function
- Pointer, Polymorphism, Pointer to Array
- Run Time & Compile Time Polymorphism
- Files and Console I/O
- Template (Function Templates)
- Template (Template Class)