

## **CPP SYLLABUS**

- Introduction to C++
- Creating a project Writing, compiling and running a program
- Variables and data types
- Expressions Constants Operators Type conversions
- Looping constructs: while, do...while for loops
- If...else statements Switch/case construct
- Functions
- Passing arguments Function prototyping Default argument initializers Inline functions
- Arrays
- Array initialization Multi-dimensional arrays Character arrays Working with character strings
- Storage Classes
- Global variables
- Pointers
- Pointer and arrays Pointers to character strings Arrays of pointers Memory slicing Pointers to functions
- C++ classes
- Data members and member functions Creating objects The new and delete operators Friends to a class Class initialization
- Reference types

- Reference type arguments
- Function overloading
- Operator overloading
- Copy constructor
- Assignment operator
- Template classes
- Static class members File streams
- Inheritance
- Base classes and derived classes Inherited member access Base class initialization Protected members of a class
- Virtual functions
- Virtual destructors
- Virtual base classes
- Virtual base class member access Constructor and destructor ordering
- Exception handling
- try...throw...catch block Nested catch handlers