

C++ PROGRAMMING

Duration: - 18 Weeks

SUBJECT OFFERED

1. Introduction to OOPS

- Concept of OOPS.
- Difference Between OOPS and PDF Concept.
- Advantages of using OOPS Concept.

2. C++ Fundamentals

- Features of OOPS Programming.
- Editing, Compiling and Executing.
- C++ Program.
- Constants / Data Types / Expressions.

3. Operators and Expression

- Arithmetic Operator.
- Relational Operator.
- Logical Operator.
- Ternary Operator.
- Arithmetic and Logical Expression.

4. Control Constructs

- Branching / Condition Checking if condition / if-else / if elseif-else / switch case.
- Integration / Looping for loop / while loop do while loop.

5. Arrays / Array Declaration

- Single Dimensional Array.
- Double Dimensional Array.

6. Functions

- Function Arguments.
- Returning value from Function.
- Call by Value.
- Call by Reference.

7. Object Oriented Programming

- Class and Objects.
- Access Specifier.
- Inline Function

8. Constructors

- Features of Constructors.
- Overloading Constructors.

- Destructors Features of Destructors.

9. Function Overloading

10. Pointers in C++

- Declaring and Initializing Pointers.
- Pointer Referencing / Arithmetic / Comparison.
- Pointers VS Arrays.

11. Inheritance

- Single Inheritance.
- Multilevel Inheritance.
- Direct and Indirect Inheritance.
- Multiple Inheritance.
- Behavior of Constructors and Destructors in Inheritance.

12. Templates

- Introduction to Templates.
- Function Templates.
- Class Templates.

13. Polymorphism

- Definition of Polymorphism.
- Early or Static Binding.
- Late or Dynamic Binding.
- Abstract Class.
- Pure Virtual Function.

14. File Handling in C++

- Files and Streams.