

## C SYLLABUS

### **Basics of C**

- History and Features of C
- Importance of C
- About Procedural Language
- Role of Compiler
- Role of Interpreter
- The Structure of a C Program
- Writing C Programs
- Building an Executable Version of a C Program
- Debugging a C Program
- Examining and Running a C Application Program

### **An Overview Of C And Buzzwords**

- Data Type, Variable
- Operators
- Control Statement
- Preprocessor Directives Input and Output Operators
- Reading/Writing Characters
- Formatted input/output Function

### **Control Statement**

- The IF.....ELSE Statement
- IF.....ELSE ladder
- Nesting of IF.....ELSE Statements
- The Switching Statements
- The do-while Statement
- The while statement
- FOR Statements

## **Array in C**

- Array : What and Why?
- One Dimensions Arrays
- Two Dimensions Arrays
- Multi -Dimensions' Arrays
- Dynamic Arrays

## **String Handling**

- Reading String from Terminal
- Writing String to Screen
- String Handling Functions
- Table of String

## **Function in C**

- Function Basics
- Advantage of Function
- Recursion
- Variable Storage Classes
- Variable arguments Function

## **Pointers in C**

- Understanding Pointers
- Pointer expressions
- Pointer and Arrays
- Pointers and Character String
- Pointers to Functions
- Pointers and Structures

## **Structures and Unions**

- Defining a Structure
- Advantage of Structure
- Size of Structure
- Arrays of Structures
- Structures and Functions
- Defining Unions

## **Dynamic Memory allocation**

- Introduction to Dynamic Memory Allocation
- malloc
- calloc
- realloc
- free

## **LinkedList**

- Concepts of Linked Lists
- Creating a Linked Lists
- Inserting/Deleting an item
- Application of Linked Lists

## **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

## Preprocessor

- Macro Substitution
- File Inclusion
- Computer Control Directives

