

## **ADVANCED C**

### **Introduction**

- What is a program?, What is a programming language?, Evolution of C language, Features of C, Structure of a C program, Compilation and execution?
- Keywords in C, constants, variables, data types, Comments in C, Format strings, escape sequences, Basic I/O instructions

### **Operators**

Classification of operators

- ✓ Arithmetic operators
- ✓ Relational operators
- ✓ Logical operators
- ✓ Assignment operators
- ✓ Increment/Decrement operators
- ✓ Bitwise operators
- ✓ Conditional operator
- ✓ Other operators

### **Flow control instructions**

Decision Control Instructions

- If, if-else, if-else-if, nested if-else
- Loop control instructions  
for loop, while loop, do while, use of break and continue
- Selection instructions  
switch

### **Funcnios**

**Arrays**

**Pointers**

**Strings**

**Structures and Unions**

**Storage classes and**

**scoping Files**

**Other**

**Features**

**Preprocessor**

## **OBJECT ORIENTED PROGRAMMING C++**

### **Introduction to C++**

1. Introduction to Object Oriented Programming
2. Procedure Oriented Vs Object Oriented
3. Difference between C and C++
4. C++ Output/ Input
5. Keywords in C++
6. New Style of header files Specification
7. Comments in C++
8. Variables in C++

**Classes and Object**

- a. Structures in C
- b. Structure in C++
- c. Access Specifier
- d. Classes
- e. Objects in C++
- **More on Classes and Objects**
- **Dynamic Memory Management**
- **Constructor and Destructor**
- **Inheritance**
- **Virtual Functions and Inheritance**
- **Operator Overloading**
- **Constructor- Destructor Invocation**
- **Templates**
- **Exception Handling**
- **Working with input and output and files**
- **Basic understanding of standard template library**
- **the string of C++**
- **Miscellaneous concept of C++**

