



## **Skillsfuture@PA C Programming**

### **Objective:**

This course will introduce the concept of structured programming for "C". It will help participants to understand and develop working programs using "C". Participants will be given intensive hands-on practices to design, write, debug, test and implement programs.

### **Who should Attend?**

This course is targeted at an individual who has a keen interest in C programming. Participants must be PC literate and has some basic knowledge and usage of Windows Operating System and Word Editor.

### **Equipment:**

Require 01 x Windows-based desktop/notebook Computer with a C compiler and Editor installed.

### **Course Outline**

#### **Overview of C Language**

- The Origin of C Language
- Features of C
- Understanding of the programming cycle
- Files of C Language

#### **Data types in C**

- Data types
- Variables
- Declaration of Variables
- Assigning values to variables
- Constants
- Declaration of Constants
- Arithmetic, Relational & Logical Operators
- Backslash codes
- Increment and Decrement
- Spacing and Parentheses

#### **Writing Simple C program**

- Fundamental of C
- Basic C Program structure
- Semicolons in C

#### **Programming Styles**

- Lowercase vs Uppercase
- Placement of Braces and Indentation
- Using C shorthand
- Making Comments

#### **I/O Functions of C**

- Reading and Writing Data
- Use of scanf( ), printf( ), getch( ) etc,
- Formatting the output on Screen

#### **Program Control Statement**

- Conditional Statement
- The if Selection Structure
- Nested ifs
- The if/else Selection Structure
- The switch Statement
- Looping Statements
- The while Loop
- The for Loop
- The do-while Loop

#### **Functions**

- Rules of functions
- Function Arguments
- The return statement
- Calling functions
- Call by reference/value
- Recursive function

#### **Arrays (One dimensional arrays) & String**

- Introduction to Array
- Declaration of One-dimensional Array
- Array initialization
- Some String Library Functions

#### **Arrays (Two dimensional arrays) –**

- Declaration of Two-dimensional Array
- Array initialization

#### **C Programming Assignment**

- Bubble Sort