Basics of C Programming

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**CEO** 

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#### **Course Details:**

Name	Basics of C Programming
Course Duration	30 hours

C is one of the most popular programming language. You can start learning coding in C. It is being widely used in embedded programming, The C Language is developed for creating system applications that directly interact with the hardware devices such as drivers, kernels, etc.C programming is considered as the base for other programming languages, that is why it is known as mother language.

It is essential for the graduates and professionals to learn basics of C as it is the mother of programming languages.

#### **Objectives of Training**

- Provide minds-on and hands-on training
- Understand C and its usages
- Understand basics of programming
- Learn how to write algorithms and convert them into program
- Enhance logical thinking

#### **Outcome of Training**

- Trainees should be able to independently write programs for a given problem
- Training on C enable trainees to solve objective and programming type questions.
- Extensive training would help them to prepare for placements/switch career.

#### **Syllabus**

Module	Topics
Module 1 –	✓ Introduction to C
Introduction to C	✓ Features of C
	✓ Usages of C
	✓ History of C
	✓ Getting started with C
	✓ Flow of C program
	✓ Datatypes in C
	✓ Printf scanf
	✓ Keywords
	✓ Operators
	✓ Comments

	✓ Writing simple programs
Modules 2 –C	✓ If-else
Control Statements	✓ switch
	✓ Loops – do-while,while,for
	✓ Break,continue
	✓ goto
	<ul><li>✓ Type Casting</li><li>✓ Sample programs</li></ul>
	• Sample programs
Module 3 –	✓ What is a function
Functions	✓ Writing sample functions
	✓ Recursion
	✓ Storage class
	✓ Sample programs
Module 4 – Arrays	✓ 1-D Array
	✓ 2-D Array
	✓ Array to function
Module 5 –Pointers	✓ Sample programs
Widdule 5 -Pointers	<ul><li>✓ Introduction to pointers</li><li>✓ Pointer to pointer</li></ul>
	✓ Pointer to pointer ✓ Pointer Arithmetic
	✓ Dynamic memory allocation
	✓ Sample programs
Module 6 –String and Math	✓ Strings in C
and wath	<ul><li>✓ String functions</li><li>✓ Math functions</li></ul>
	✓ Sample programs
Module 7 –Structure	✓ Structures in C
and Union	✓ Array of Structures
	✓ Nested Structures
	✓ Union
	✓ Sample programs
Module 8 –File	✓ File handling in C
Handling	✓ fprintf(),fscanf()
	✓ fputc(),fgetc(),
	✓ fputs(),fgets(),ftell()
	✓ Sample programs

Module 9 – Preprocessor	<ul> <li>✓ C preprocessor</li> <li>✓ Macros</li> <li>✓ #include,#define,#undef,#ifdef,#ifndef</li> <li>✓ #if,#else,#error,#pragma</li> <li>✓ Sample programs</li> </ul>
Module 10 – Mock test and Assessments	<ul><li>✓ Mock test</li><li>✓ Assessment</li></ul>