

COURSE: C PROGRAMMING LANGUAGE

UNIT 1: Concept of Algorithm using Flowchart

- 1.1 Algorithm
- 1.2 Elements of Flowchart
- 1.3 Uses of Flowchart

UNIT 2: Fundamentals of C Language

- 2.1 About C tutorial
- 2.2 Important points about C
- 2.3 Why Use C
- 2.4 Applications of C
- 2.5 Features of C
- 2.6 C, C++ and Java
- 2.7 Overview of C Language
 - 2.8 History of C
 - 2.9 First Program in C Hello World
 - 2.10 Basic Structure of C Programming
 - 2.11 Tokens in C
 - 2.12 Keywords in C
 - 2.13 Identifiers in C
 - 2.14 Format Specifiers
 - 2.15 Format Specifiers Examples

UNIT 3: Data Types in C Language

- 3.1 Introduction to Data Types in C
 - 3.1.1 int Data Type in C
 - 3.1.2 float Data Type in C
 - 3.1.3 double Data Type in C
 - 3.1.4 char Data Type in C
- 3.2 Variable in C Language
 - 3.2.1 Variable Introduction in C
 - 3.2.2 Variable Declaration and Initialization
 - 3.2.3 Variable types and Scope in C
 - 3.2.4 Local Variable in C
 - 3.2.5 static Variable in C
 - 3.2.6 Global variables in C
 - 3.2.7 Storage Class in C

3.3 Constant in C Language

3.3.1 Constants in C

UNIT 4: Operators and Enums in C Language

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4.2 Arithmetic Operators in C

4.3 Relational Operators in C

4.4 Bit-wise Operators in C

4.5 Logical Operators in C

4.6 Assignment Operators in C

4.7 Conditional Operator in C

4.8 sizeof() Operator in C

4.9 Operator Precedance

UNIT 5: Decision Making of C Language

5.1 Decision Making in C Introduction

5.2 if Statement

5.3 if-else Statement

5.4 Nested if Statement

5.5 if else if Ladder

5.6 switch case

UNIT 6: Loop control in C Language

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6.2 while loop in C

6.3 do while Loop In C

6.4 for Loop in C

UNIT 7: Control Flow in C Programming

7.1 break Statement in C

7.2 continue Statement in C

7.3 goto Statement in C

UNIT 8: Array in C Language

8.1 Single Dimensional Array

8.2 Multi-Dimensional Array in C

UNIT 9: String in C Language

9.1 Introduction to String

UNIT 10: Function in C Language

10.1 Function in C

10.2 Function Calling in C

10.3 return type in Function

10.4 Call by Value in C

10.5 User Define Function

10.6 Predefined Functions

UNIT 11: String functions in C

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11.1.1 strcat() function

11.1.2 strncat() function

11.1.3 strcpy() function

11.1.4 strncpy() function

11.1.5 strlen() function

11.1.6 strcmp() function

11.1.7 strcmpi() function

11.1.8 strchr() function

11.1.9 strrchr() function

11.1.10 strstr() function

11.1.11 strrstr() function

11.1.12 strdup() function

11.1.13 strlwr() function

11.1.14strupr() function

- 11.1.15 strrev() function
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UNIT 12: Recursion in C Language

- 12.1 Introduction to Recursion
- 12.2 Direct and Indirect Recursion

UNIT 13: Pointer in C Language

- 13.1 Pointer in C
- 13.2 types of pointer
- 13.3 NULL pointer
- 13.4 Dangling Pointer
- 13.5 Void/Generic Pointers
- 13.6 Wild Pointer
- 13.7 Near, Far and Huge Pointer
- 13.8 Pointer Expressions and Arithmetic
- 13.9 Pointer and Array
- 13.10 Strings as pointers
- 13.11 Pointer to Function
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- 14.1 Structure in C
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- 14.6 typedef in C
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15.1 Union in C

UNIT 16: File Input/Output

16.1 Introduction to File

16.2 File Operation in c

UNIT 17: Dynamic Memory Allocation

17.1 Introduction to DMA

17.2 calloc() and free() function

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