

FUNDAMENTALS OF C

Week - 1 Module

Lec -1 = Basics Unveiled:
Computers, Programming, and a Dive
into Computer History

Lec - 2 = Evolution of Portability:
History of Laptops, Laptops vs.
Computers, and Understanding
Machine Language

Week - 3 Module

Lec -4 = Introduction to C
Language: System Programming,
Embedded Systems, and the
Structure of a C Program

Lec - 5 = Demystifying C: A Detailed
Look at the Structure of a C Program

Week - 5 Module

Lec -7 = Continuing First Programs:
Delimiters, Keywords, Identifiers,
Constants, and Variables in C.

Lec - 8 = Variables and Datatypes in
C: Examples and Implementation

Week - 7 Module

Lec -10 = Programming Basics:
Essential Methods for Writing C
Programs

Lec - 11 = Visualizing Programs:
Flowcharts and the Addition of Two
Numbers

Week - 2 Module

Lec -3 = Decoding Languages:
Differences Between Machine
Language, Assembly Language, High-
Level, and Low-Level Languages

Practical - 1 = Explaining basic
Computer & its functions

Week - 4 Module

Lec -6 = Program Execution, Input-
Output Operations, and Initiating the
First C Program

Practical - 2 = Learn to use Compiler,
First C Program

Week - 6 Module

Lec -9 = Exploring Datatypes and
Operators in C: Practical Examples

Practical - 3 = Practising with
different datatypes, making
identifiers, creating variables

Week - 8 Module

Lec -12 = Calculating Area,
Circumference, and Perimeter:
Flowcharts and C Programming
Implementation.

Practical - 4 = Practising programs
of finding sum, area & perimeter

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Week - 9 Module

Lec - 13 = Navigating Decision Making in C: Flowcharts, Conditional Statements, and Statement Types
Lec - 14 = The Theory and Practice of If Statements in C

Week - 10 Module

Lec - 15 = Determining Odd or Even Numbers Using If Statements
Practical - 5 = Practising Odd or Even Number program

Week - 11 Module

Lec - 16 = Exploring If-Else Statements: Theory and Practical Examples
Lec - 17 = Finding Results: Implementation of If-Else Statements in C

Week - 12 Module

Lec - 18 = Nested If-Else Statements: Understanding the Theory
Practical - 6 = Practising if-else programs and result finder program.

Week - 13 Module

Lec - 19 = Nested If-Else Statements in Action: Examples and Switch Statement Introduction
Lec - 20 = Unveiling the World of Loops: An Introduction to Iterative Structures

Week - 14 Module

Lec - 21 = For Loop Demystified: Introduction, Syntax, and Basics
Practical - 7 = Practising different questions of nested if-else and Switch statement.

Week - 15 Module

Lec - 22 = Mastering For Loops: Basic Examples for Better Understanding
Lec - 23 = Entering the Loop: An Introduction to While Loops

Week - 16 Module

Lec - 24 = Getting Started with While Loops: Solving Fundamental Problems
Practical - 8 = Practising programs of for loop and while loop.

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Week - 17 Module

Lec - 25 = The Do-While Loop:
Introduction to a Unique Iterative
Approach

Lec - 26 = Problems Solved with Do-
While Loops: A Comprehensive
Exploration

Week - 19 Module

Lec - 28 = Mastering Break:
Practical Implementation and Control

Lec - 29 = Continuing the Flow: An
Introduction to the Continue
Statement

Week - 21 Module

Lec - 31 = Multiplication Tables:
Printing Tables for Mastery

Lec - 32 = Introduction to
Functions: Building Blocks of Modular
Code

Week - 23 Module

Lec - 34 = Creating a Sum Function:
A Step Toward Modular Coding

Lec - 35 = Calculating Cubes and
Squares: A Function's Power

Week - 18 Module

Lec - 27 = Breaking Free:
Understanding the Break Statement

Practical - 9 = Practising Do while
loop programs

Week - 20 Module

Lec - 30 = Control in Action:
Implementation and Dealing with
Infinite Loops

Practical - 10 = Practising break &
continue statements and Infinite loop
programs

Week - 22 Module

Lec - 33 = Function Fundamentals:
Continuing the Journey

Practical - 11 = Practising Multiplication
table program and basic functions.

Week - 24 Module

Lec -36 = Functionality at Its
Best: Area and Circumference
Calculator

Practical - 12 = Practising
different functions program

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Week - 25 Module

Lec - 37 = Unveiling Arrays in Programming
Lec - 38 = Array Structure: Accessing, Declaring, and Memory Sizes

Week - 26 Module

Lec - 39 = Arrays Continued: Memory Size Variations for Different Data Types
Practical - 13 = Practising Array basic programs

Week - 27 Module

Lec - 40 = Solving Basic Array Problems: A Foundation for Understanding
Lec - 41 = Array Operations: Finding Sum and Average of Elements

Week - 28 Module

Lec - 42 = Identifying Negative Elements and Counting Negatives in an Array
Practical - 14 = Practising Array advanced programs

Week - 29 Module

Lec - 43 = Exploring Max and Min Elements, along with Counting Repeated Numbers in an Array
Lec - 44 = Merging Two Arrays: A Fundamental Operation

Week - 30 Module

Lec - 45 = Concluding the Series: Recursion in Programming
Practical - 15 = Practising Array and Recursion programs