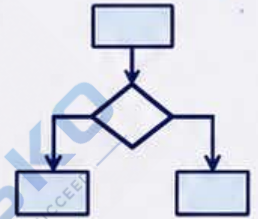
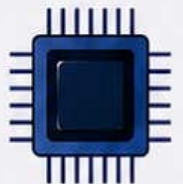


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Most Important Topics

INSTRUCTIONS



These questions are selected based on previous year university exams.



Practice these questions to understand important concepts deeply.



Focus on frequently asked topics and their variations.



Solve these questions within the given time for better exam preparation.



Revise regularly and test yourself to improve your score.

Practice Smart • Stay Consistent • Score High!

DATA STRUCTURES

ALGORITHMS

COMPUTER NETWORKS

DATABASE SYSTEMS

Practice More ✓
Revise Well ✓
Score Better ✓
Succeed

Programming with C

Most Important Topics

Unit I: Introduction to C

Most Important Topics

1. Algorithm and Flowchart

- Definition
- Symbols used in flowcharts
- Advantages
- Drawing algorithms and flowcharts for simple problems

2. Structure of a C Program

- Documentation section
- Link section
- Definition section
- Global declaration
- `main()` function
- User-defined functions

3. Types of Programming Languages

4. Tokens / Basic Elements of C

- Character Set
- Identifiers
- Keywords
- Constants
- Variables

5. Operators and Expressions

- Arithmetic
- Relational
- Logical
- Assignment
- Increment/Decrement

Also Important

- History of C Language
 - Advantages of C
 - Qualifiers
-

Unit II: Input/Output and Control Structures

Most Important

VERY IMPORTANT UNIT

1. Formatted and Unformatted I/O

Know the difference between:

Formatted I/O

- `scanf()`
- `printf()`

Unformatted I/O

- `getchar()`
- `getch()`
- `gets()`
- `putchar()`
- `puts()`

Important Question

Differentiate between formatted and unformatted I/O functions.

2. Branching / Decision Making

- `if`
- `if-else`
- Nested `if`
- Conditional Operator `?:`
- `switch`

🔥 Practice Programs

- Largest of 2 or 3 numbers
- Even or Odd
- Positive/Negative
- Grade calculation
- Menu-driven calculator using `switch`

3. Looping

Must Prepare

- `while`
- `do-while`
- `for`

Also:

- Nested loops
- `break`
- `continue`
- `goto`
- Comma operator

🔥 Important Programs

- Factorial
 - Prime number
 - Fibonacci series
 - Palindrome
 - Reverse a number
 - Sum of digits
 - Pattern programs
-

Unit III: Arrays, Structures and Pointers

1. Arrays

Very important.

- Declaration
- Initialization
- One Dimensional Array
- Two Dimensional Array

Practice Programs

- Sum and average of array elements
- Largest and smallest element
- Sorting
- Matrix addition
- Matrix multiplication
- Transpose of matrix

2. Structure and Union

Prepare:

- Definition
- Declaration
- Initialization
- Array of Structures
- Nested Structures
- **Structure vs Union**

Important Question

Differentiate between Structure and Union.

3. Pointers

One of the **most important topics**.

- Declaration of pointers
- Initialization
- Pointer variables
- Pointer Arithmetic

Practice

- Swap two numbers using pointers
 - Access variables using pointers
 - Array using pointers
-



Overall Top 15 Most Important Topics

Rank

Topic



Control Structures: if-else and switch



Loops: for, while, do-while



Arrays: 1D and 2D

4

Functions in C

5

Pointers and Pointer Arithmetic

6

Call by Value vs Call by Reference

7

Recursion

8

Structure and Union

9

String Functions

10

Formatted vs Unformatted I/O

11

Algorithm and Flowchart

12

Structure of C Program

13

Operators and Expressions

14

Nested Loops

15

Local and Global Variables

Best Priority Order

First Priority 🔥

Control Structures → Loops → Arrays → Functions → Pointers

Second Priority ★

Call by Value/Reference → Recursion → Structures & Union → Strings

Third Priority

I/O Functions → Algorithm & Flowchart → Structure of C Program → Operators

If you prepare these topics along with their **definitions, differences, syntax, and important C programs**, you will cover the strongest part of this syllabus.

Unit IV: Functions and Strings

1. Functions in C

This is a **very high-priority topic**.

Prepare:

- Definition of Function
- Function Prototype
- Categories of Functions
- Actual Arguments
- Formal Arguments
- Function Calling

Most Important

- **Call by Value**
- **Call by Reference**

Also Prepare

- Function Parameters
- Local Variables
- Global Variables
- Functions with Arrays
- **Recursion**

Important Programs

- Factorial using recursion
- Fibonacci using recursion
- Function to find largest number

- Swap using call by reference

2. String Functions

Must remember the use of:

strlen()

strcpy()

strcmp()

strcat()

Practice Programs

- Find string length
 - Copy a string
 - Compare two strings
 - Concatenate strings
-