

MODEL PAPER – 1

B.Com (Computer Applications)

Paper: Problem Solving with C & OOPs using C++

Time: 3 Hours | Max Marks: 80

✓ SECTION – A (Short Answer)

Answer any 8 questions ($8 \times 4 = 32$)

1. Explain **History of C language**
2. Define **Algorithm and Flowchart**
3. What are **Data Types in C**
4. Explain **Type Conversion**
5. Define **Operators in C**
6. What is **if-else statement**
7. Explain **for loop**
8. Define **Function Prototype**
9. What is **Array Initialization**
10. Define **String Functions**
11. What is a **Pointer**
12. Define **Structure**

✓ SECTION – B

Answer all questions ($4 \times 12 = 48$)

13. (a) Explain Structure of C Program with example

OR

(b) Explain Operators in C with examples

14. (a) Explain Control Statements with examples

OR

(b) Explain Looping statements in C

15. (a) Explain Functions in C and types

OR

(b) Explain Arrays and Strings in detail

16. (a) Explain Pointers with examples

OR

(b) Explain OOP Concepts in C++

MODEL PAPER – 2

B.Com (Computer Applications)

Paper: Problem Solving with C & OOPs using C++

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SECTION – A

1. Keywords & Identifiers
2. Constants in C
3. Scope of Variables
4. Bitwise Operators
5. Switch Statement
6. While Loop
7. Call by Value vs Reference
8. One Dimensional Array
9. String Handling Functions
10. Pointer Arithmetic
11. Structures vs Unions
12. Encapsulation

✓ SECTION – B

Answer all questions (4 × 12 = 48)

13. (a) Explain **Preprocessors in C**
OR
(b) Explain **Input/Output functions**
14. (a) Explain **If-else ladder & nested if**
OR
(b) Explain **Break & Continue**
15. (a) Explain **User Defined Functions**
OR
(b) Explain **Multidimensional Arrays**
16. (a) Explain **Structures & Unions comparison**
OR
(b) Explain **Inheritance & Polymorphism**

MODEL PAPER – 3

B.Com (Computer Applications)

Paper: Problem Solving Techniques with C & OOP using C++

Time: 3 Hours | Max Marks: 80

✓ SECTION – A (Short Answer Questions)

Answer any EIGHT questions ($8 \times 4 = 32$)

1. Discuss the **features of C language**
2. Differentiate between **compiler and interpreter**
3. Explain **rules for declaring variables**
4. What are **formatted I/O functions**
5. Distinguish between **relational and logical operators**
6. Explain the use of **break and continue statements**
7. What is **function prototype**? Why is it required?
8. Define **recursive function with example**
9. Explain **two-dimensional arrays**
10. What are **string handling functions in C**
11. Define **pointer and its applications**
12. Distinguish between **structure and union**

✓ SECTION – B (Essay Type Questions)

Answer ALL questions ($4 \times 12 = 48$)

13. (a) Describe the basic structure of a C program and explain execution steps

OR

(b) Explain data types and type conversion in C with examples

14. (a) Illustrate the working of conditional statements with suitable examples

OR

(b) Compare different **looping constructs in C** with examples

15. (a) Explain functions in C, including call by value and call by reference

OR

(b) Discuss **arrays and strings** with suitable examples

16. (a) Explain pointers and pointer arithmetic with examples

OR

(b) Describe **object-oriented concepts in C++** such as encapsulation, inheritance, and polymorphism

MODEL PAPER – 4

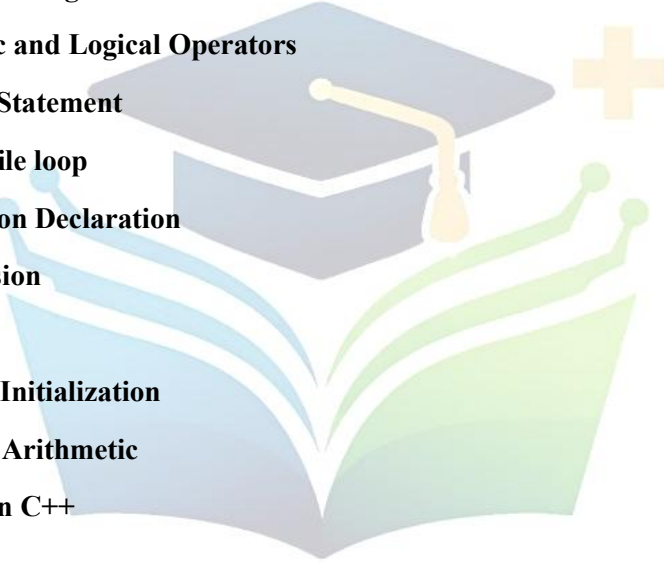
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✓ SECTION – A (Short Answer)

Answer any 8 questions ($8 \times 4 = 32$)

1. Define **Keywords and Identifiers**
 2. Explain **Constants in C**
 3. What is **Type Casting**
 4. List **Arithmetic and Logical Operators**
 5. Define **Switch Statement**
 6. What is **Do-while loop**
 7. Explain **Function Declaration**
 8. What is **Recursion**
 9. Define **Array**
 10. What is **String Initialization**
 11. Define **Pointer Arithmetic**
 12. What is **Class in C++**
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✓ SECTION – B (Essay Type)

Answer ALL questions ($4 \times 12 = 48$)

13. (a) Explain Variables, Data Types and Scope of Variables

OR

(b) Explain Operators in C with examples

14. (a) Explain Conditional Statements (if, if-else, nested if)

OR

(b) Explain Looping Statements with examples

15. (a) Explain Functions and their types in C

OR

(b) Explain Arrays and Strings with examples

16. (a) Explain Structures and Unions with differences

OR

(b) Explain OOP Concepts in C++

MODEL PAPER – 5

B.Com (Computer Applications)

Paper: Problem Solving Techniques with C & C++

Time: 3 Hours | Max Marks: 80

✓ SECTION – A (Short Answer)

Answer any 8 questions ($8 \times 4 = 32$)

1. Explain **History of C language**
 2. Define **Flowchart**
 3. What are **Data Types**
 4. Explain **Relational Operators**
 5. What is **If-else ladder**
 6. Define **For loop**
 7. What is **Call by Value**
 8. Define **Two Dimensional Array**
 9. Explain **String Functions**
 10. Define **Pointer**
 11. What is **Structure**
 12. Define **Polymorphism**
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✓ SECTION – B (Essay Type)

Answer ALL questions ($4 \times 12 = 48$)

13. (a) Explain Basic Structure of C Program with diagram

OR

(b) Explain Preprocessors and I/O functions

14. (a) Explain Switch statement with example

OR

(b) Explain While and Do-while loops with differences

15. (a) Explain Call by Value and Call by Reference with examples

OR

(b) Explain String handling and array operations

16. (a) Explain Pointers and Structures in detail

OR

(b) Explain Class, Object and Inheritance in C++

UNIT WISE IMPORTANT QUESTIONS

✓ UNIT-I (C Basics) – ★ ★ ★ Very Important

- Explain **Structure of C Program** ★ ★ ★
- Define **Algorithm & Flowchart** with examples ★ ★ ★
- Explain **Data Types in C** ★ ★
- Discuss **Operators in C** (all types) ★ ★ ★
- Explain **Type Conversion** ★ ★
- Write about **Preprocessors in C** ★ ★
- Define **Variables, Scope & Lifetime** ★ ★
- Explain **Formatted I/O functions** (printf, scanf) ★ ★ ★

✓ UNIT-II (Control Statements & Loops) – ★ ★ ★

- Explain **if, if-else, nested if** ★ ★ ★
- Write about **switch statement** ★ ★
- Explain **for, while, do-while loops** ★ ★ ★
- Differentiate **while vs do-while** ★ ★
- Explain **break and continue statements** ★ ★ ★
- Write short note on **goto statement** ★

✓ UNIT-III (Functions, Arrays, Strings) – ★ ★ ★

- Explain **Functions in C** ★ ★ ★
- Call by **Value vs Reference** ★ ★ ★
- Explain **Recursive Functions** ★ ★
- Write about **1D and 2D Arrays** ★ ★ ★
- Explain **String functions** (strlen, strcpy, etc.) ★ ★ ★
- Difference between **arrays and strings** ★ ★

✓ **UNIT-IV (Pointers, Structures) – ★ ★ ★**

- Explain **Pointers with examples** ★ ★ ★
- Pointer Arithmetic ★ ★
- Explain **Structures in C** ★ ★ ★
- Difference between **Structure and Union** ★ ★ ★
- Array of Structures ★ ★
- Features of pointers ★ ★

✓ **UNIT-V (OOP with C++) – ★ ★ ★**

- Explain **OOP Concepts (Encapsulation, Inheritance, Polymorphism)** ★ ★ ★
- Difference between **C and C++** ★ ★ ★
- Explain **Class and Object** ★ ★ ★
- Write short note on **Data Members & Member Functions** ★ ★
- Advantages of OOP ★ ★



Smart Study
— PLUS —