

MODEL PAPER – 1
B.Sc Computer Science
Paper: Programming in C
Time: 3 Hours | Max Marks:

✓ SECTION – A (Short Answer Questions)

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

1. Explain generation of programming languages
 2. Describe compilation and interpretation process
 3. Define C tokens with examples
 4. Explain formatted and unformatted I/O functions
 5. What are escape sequences? Give examples
 6. Differentiate between if-else and switch
 7. Define function and its types
 8. Explain recursion with example
 9. What is a pointer? Explain & operator
 10. Define dynamic memory allocation
 11. What is a structure? Give example
 12. Explain file handling in C
-

◆ SECTION – B (Essay Type Questions)

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

13. (a) Explain structure of C program, data types, variables, constants, and operators
OR
(b) Write an algorithm and flowchart for finding factorial of a number and explain expression evaluation
14. (a) Explain control statements (if, switch, loops) with examples
OR
(b) Write a C program to perform matrix addition and explain arrays and strings
15. (a) Explain functions, call by value, call by reference, and storage classes
OR
(b) Explain pointers, pointer arithmetic, and dynamic memory allocation with examples
16. (a) Explain structures, unions, and enumeration with examples
OR
(b) Explain file handling in C and write a program to copy contents from one file to another

MODEL PAPER – 2
B.Sc Computer Science
Paper: Programming in C
Time: 3 Hours | Max Marks:

◆ **SECTION – A (Short Answer Questions)**

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

1. Explain structure of a C program
 2. Define algorithm and flowchart
 3. What are operators in C?
 4. Explain formatted input/output functions
 5. Differentiate between while and do-while
 6. What are arrays? Explain types
 7. Define recursion with example
 8. What are storage classes in C?
 9. Explain pointer and its types
 10. What is dynamic memory allocation?
 11. Differentiate between structure and union
 12. What is file handling?
-

◆ **SECTION – B (Essay Type Questions)**

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

13. (a) Explain C tokens, data types, variables, constants, and expression evaluation
OR
(b) Explain compilation, interpretation, loading, and linking process
14. (a) Explain control statements (if, switch, loops) with suitable examples
OR
(b) Write a C program for matrix addition and explain multidimensional arrays
15. (a) Explain functions, recursion, and passing arrays to functions
OR
(b) Explain pointers, pointer to pointer, and pointers with arrays
16. (a) Explain structures, arrays of structures, and enumeration
OR
(b) Explain file handling and write a program to read and write data into a file

MODEL PAPER – 3

B.Sc Computer Science
Paper: Programming in C
Time: 3 Hours | Max Marks:

◆ **SECTION – A (Short Answer Questions)**

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

1. Define programming languages and their generations
 2. Explain structure of a C program
 3. Define constants and variables in C
 4. Explain escape sequences with examples
 5. Describe for loop with syntax
 6. What are strings? Explain string functions
 7. Define function and its advantages
 8. Explain call by value and call by reference
 9. What is a pointer? Explain pointer to pointer
 10. Define malloc() and calloc()
 11. What is a union?
 12. Explain text and binary files
-

◆ **SECTION – B (Essay Type Questions)**

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

13. (a) Explain compilation, interpretation, and structure of C program in detail
OR
(b) Explain operators in C and expression evaluation with examples
14. (a) Explain control statements and write a program to check palindrome number
OR(b) Explain arrays and strings. Write a program to perform string concatenation
15. (a) Explain functions, recursion, and storage classes with examples
OR
(b) Explain pointers, pointer arithmetic, and pointers with strings
16. (a) Explain structures, unions, and enumeration types with examples
OR
(b) Explain file handling and write a program to copy contents from one file to another

MODEL PAPER – 4
B.Sc Computer Science
Paper: Programming in C
Time: 3 Hours | Max Marks:

◆ **SECTION – A (Short Answer Questions)**

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

1. Explain classification of programming languages
 2. Define flowchart and its symbols
 3. What are data types in C? Explain briefly
 4. Explain formatted output functions with examples
 5. Differentiate between if and switch
 6. What are multidimensional arrays?
 7. Define recursion and its advantages
 8. Explain scope and lifetime of variables
 9. What is pointer arithmetic?
 10. Define dynamic memory allocation functions
 11. What is an enumeration (enum)?
 12. Explain file operations in C
-

◆ **SECTION – B (Essay Type Questions)**

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

13. (a) Explain structure of C program and tokens with examples
OR
(b) Explain operators in C and type conversions with examples
14. (a) Explain control statements and write a program to find factorial using loop
OR
(b) Explain arrays and write a program for matrix multiplication
15. (a) Explain functions, recursion, and storage classes with examples
OR
(b) Explain pointers, pointers with arrays, and pointer arithmetic
16. (a) Explain structures and unions with differences and examples
OR
(b) Explain file handling and write a program to count number of words in a file

MODEL PAPER – 5
B.Sc Computer Science
Paper: Programming in C
Time: 3 Hours | Max Marks:

◆ **SECTION – A (Short Answer Questions)**

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

1. Define algorithm and explain its characteristics
 2. Explain structure of a C program
 3. What are constants and symbolic constants?
 4. Define formatted and unformatted input functions
 5. Explain while loop with example
 6. What are strings? List any four string functions
 7. Define storage classes in C
 8. What is recursion? Give example
 9. Explain pointers and address-of operator
 10. What is malloc() and free()?
 11. Define structures and their uses
 12. What is file handling? Explain file modes
-

◆ **SECTION – B (Essay Type Questions)**

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

13. (a) Explain C tokens, data types, variables, and operators with examples
OR
(b) Explain compilation, interpretation, loading, and linking process
14. (a) Explain control statements and write a program to check whether a number is Armstrong or not
OR
(b) Explain arrays and strings. Write a program to find largest element in an array
15. (a) Explain functions, types of functions, and recursion with examples
OR
(b) Explain pointers, pointer to pointer, and dynamic memory allocation

16. (a) Explain structures, arrays of structures, and enumeration types
OR
(b) Explain file handling and write a program to append data into a file

UNIT WISE IMPORTANT QUESTIONS

UNIT-I (Programming Basics)

- ✓ Generation and classification of programming languages ★★ ★
- ✓ Compilation, interpretation, loading, linking ★★ ★★
- ✓ Flowcharts and Algorithms ★★ ★★
- ✓ Structure of a C program ★★ ★★ ★
- ✓ C tokens ★★ ★★ ★
- ✓ Data types, variables, constants ★★ ★★
- ✓ Operators in C ★★ ★★ ★
- ✓ Expression evaluation (precedence & associativity) ★★ ★★ ★
- ✓ Type conversions in C ★★ ★★

UNIT-II (I/O, Control Statements, Arrays)

- ✓ Formatted and unformatted I/O functions ★★ ★★ ★
- ✓ Escape sequences ★★ ★★
- ✓ if, if-else, nested if ★★ ★★ ★
- ✓ switch statement ★★ ★★ ★
- ✓ Loops (for, while, do-while) ★★ ★★ ★
- ✓ break, continue, goto, return, exit ★★ ★★
- ✓ One-dimensional arrays ★★ ★★ ★
- ✓ Multidimensional arrays ★★ ★★
- ✓ Strings and string functions ★★ ★★ ★

UNIT-III (Functions & Pointers)

- ✓ Function definition, declaration, calling ★★ ★★ ★
- ✓ Types of functions ★★ ★★
- ✓ Call by value vs call by reference ★★ ★★ ★
- ✓ Recursion ★★ ★★ ★
- ✓ Scope and lifetime of variables ★★ ★★
- ✓ Storage classes ★★ ★★
- ✓ Pointers (basics & types) ★★ ★★ ★
- ✓ Pointers with arrays and strings ★★ ★★ ★

✓ Pointer to pointer ★ ★ ★ ★

✓ Dynamic memory allocation (malloc, calloc, free) ★ ★ ★ ★ ★

UNIT–IV (Structures & File Handling)

✓ Structures (definition & access) ★ ★ ★ ★ ★

✓ Arrays of structures ★ ★ ★ ★

✓ Structures vs unions ★ ★ ★ ★ ★

✓ Enumeration (enum) ★ ★ ★ ★

✓ File handling basics ★ ★ ★ ★ ★

✓ File operations (open, close, read, write) ★ ★ ★ ★ ★

✓ Text and binary files ★ ★ ★ ★



Smart Study
PLUS