



MODEL PAPER
End Semester Examination Spring- 2025

Program: Diploma CSE
Subject: Programming in C
Subject Code: 3DPCC103
Semester: II

UNIT-I

Section A (5 Marks)

1. Define C Programming Language with syntax?
2. Differentiate between High Level Language and Low Level Language with example?
3. What is the role of a compiler in programming? Explain with a simple diagram?
4. Explain Algorithm, Pseudocode and Program in C Programming?
5. What is Data types in C Programming? Explain the types of Data types?

Section B (10 Marks)

6. Explain Flowchart in C Programming with all the element in Flowchart?
7. Write the difference between Compiler and interpreter with example?
8. Write the algorithm to check whether a given number is odd or even. Also draw the flowchart?

Section C (20 Marks)

9. Define an operator in programming. Describe various types of operators with appropriate examples?
10. Explain Operator Precedence? Write a Program in C to show the use of Arithmetic operator?

UNIT-II

Section A (5 Marks)

11. Define conditional branching in programming with a simple example.
12. Write the difference between while loop and do-while loop?
13. What is a one-dimensional (1-D) array? Write the syntax to declare and initialize a 1-D array?
14. Explain unconditional branching statements with types?
15. List the types of loops commonly used in programming. Briefly explain each type?

Section B (10 Marks)

16. Write a program in C to take age as input from user and display the output whether he/she is eligible to vote or not. (Condition form voting: $\text{age} \geq 18$)?
17. Write a program to input 5 numbers in a 1-D array and display the sum of all elements?
18. Explain if else statement with syntax and flowchart?

Section C (20 Marks)

19. Define Array in C. Describe the Advantages and Disadvantages in Array? Explain types of Array with Example?
20. What do you mean by loop in C? Write a Program in C to find the factorial of a given number?

UNIT-III

Section A (5 Marks)

21. Define searching. List two types of searching techniques with examples?
22. What is the difference between Bubble Sort and Selection Sort?
23. Explain the concept of finding the root of an equation?
24. Define time complexity. Write Different types of time complexity?
25. What do you mean by function declaration, function definition and function call?

Section B (10 Marks)

26. Write a program in C to find the root of a quadratic equation?
27. Explain Pass by value and Pass by reference with example?
28. Write a program in C to display the week day using the concept of switch case and function?

Section C (20 Marks)

29. Discuss Recursive function in C? Explain the application, advantages and disadvantages of recursion? Write a program in C to find the Fibonacci number?
30. Create a program in C to swap two numbers using functions and arguments by:
 - a. Pass by value
 - b. Pass by reference

UNIT-IV

Section A (5 Marks)

31. Write the uses of structure in C?
32. Differentiate between pointer and structure?
33. Give an example of defining and initializing a structure?
34. What is a self-referential structure? Provide an example?
35. Define a linked list. What makes it different from an array?

Section B (10 Marks)

36. What are the limitations of C structure?
37. Write a program to demonstrate the use of pointers to swap two integers?
38. How we use pointer in C?

Section C (20 Marks)

39. Define structure in C. Write the two method of structure variable? Write a program in C to illustrate the self-referential structure?
40. Discuss Pointer in C. Write the syntax and types of pointer? Describe the uses, advantages and disadvantages in pointer?

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Disclaimer: - This is a Model Paper. The Question in End term examination will differ from the Model Paper. This Model paper is meant for practice only.