

C Language Practice Questions

Basics & Control Flow

1. Write a program to print **Hello, World!**
2. Write a program to take two numbers as input and print their **sum, difference, product, and quotient**.
3. Write a program to check whether a given number is **even or odd**.
4. Write a program to check whether a given year is a **leap year or not**.
5. Write a program to find the **largest of three numbers**.
6. Write a program to print the **multiplication table** of a given number.
7. Write a program to calculate the **sum of the first N natural numbers**.
8. Write a program to calculate the **sum of all even numbers between 1 and N**.
9. Write a program to calculate the **factorial** of a number using loops.
10. Write a program to generate the **Fibonacci series up to N terms**.

Number-Based Problems

11. Write a program to check whether a number is **prime or not**.
12. Write a program to print all **prime numbers between 1 and 100**.
13. Write a program to find the **GCD and LCM** of two numbers.
14. Write a program to **reverse a number** (e.g., 123 → 321).
15. Write a program to check whether a number is a **palindrome** (e.g., 121, 1331).
16. Write a program to check whether a number is an **Armstrong number** (e.g., $153 = 1^3 + 5^3 + 3^3$).
17. Write a program to count the **number of digits** in a given number.
18. Write a program to calculate the **sum of digits** of a number.
19. Write a program to print the **factorial of a number using recursion**.
20. Write a program to print the **Fibonacci series using recursion**.

Arrays & Strings

21. Write a program to **find the largest element in an array**.
22. Write a program to **sort an array** in ascending order.
23. Write a program to **search an element** in an array (Linear Search).
24. Write a program to implement **Binary Search** on an array.
25. Write a program to calculate the **average and percentage of 5 subjects**.
26. Write a program to count the **number of vowels and consonants in a string**.
27. Write a program to check whether a string is a **palindrome or not**.
28. Write a program to find the **length of a string without using strlen()**.
29. Write a program to **reverse a string without using strrev()**.
30. Write a program to **sort names in alphabetical order**.

Some Extra Questions

31. Write a program to swap two numbers without using a third variable.
32. Write a program to find the second largest element in an array.
33. Write a program to merge two arrays into a single array.
34. Write a program to copy one string to another without using strcpy().
35. Write a program to convert a string to uppercase without usingstrupr().
36. Write a program to find the frequency of each element in an array.
37. Write a program to remove duplicate elements from an array.
38. Write a program to find the sum of the main diagonal elements of a matrix.
39. Write a program to transpose a matrix.
40. Write a program to multiply two matrices.