C QUESTIONS ON FUNCTIONS

1. Write a program in C to find the square of any number using the function.
2. Write a program in C to swap two numbers using a function.
3. Write a program in C to check if a given number is even or odd using the function.
4. Write a program in C to find the sum of the series $1!/1+2!/2+3!/3+4!/4+5!/5$ using the function.
5. Write a program in C to convert a decimal number to a binary number using the function.
6. Write a program in C to check whether a number is a prime number or not using the function.
7. Write a program in C to get the largest element of an array using the function.
8. Write a program in C to check Armstrong and Perfect numbers using the function.
9. Write a program in C to print all perfect numbers in a given range using the function.
10. Write a program in C to print all perfect numbers in a given range using the function.
11. Write a C program to find the maximum and minimum of some values using a function that returns an array.
12. Write a C program to find the maximum and minimum of some values using a function that returns an array.
13. Write a C program to calculate the power of a number using a function. The function should take the base and exponent as parameters.
14. Create a C program to find the GCD of two numbers using a function. Use the Euclidean algorithm for GCD calculation.
15. Implement a C program that reverses a given integer using a function.
16. Develop a C program to calculate the factorial of a given number using an iterative function instead of recursion.
17. Create a C program that swaps the values of two variables using a function.
18. Create a C program to convert a binary number to its decimal equivalent using a function.
19. Develop a menu-driven calculator program in C that performs addition, subtraction, multiplication, and division using separate functions for each operation.
20. Write a C program to check if a given year is a leap year. Use a function to perform the leap year check.

21. Create a C program that calculates and returns the sum of all elements in an array using a function.

22. Develop a C program to find and print the prime factorization of a given number using a function.

23. Write a C program that reverses a given string using a function.

24. Implement a C program to print the first n rows of Pascal's Triangle using a function.

25. Create a C program that adds two matrices and prints the result using a function.

26. Develop a C program to solve a quadratic equation ($ax^2 + bx + c = 0$) using a function. Handle cases for real and complex roots.

27. Write a C program that takes a string as input and counts the frequency of each character. Use a function to perform the character counting.

28. Implement a C program to print Floyd's Triangle up to a specified number of rows using a function.

29. Write a C program that multiplies two matrices and prints the result using a function.

30. Develop a C program to find and print all Armstrong numbers within a specified range using a function.

31. Implement a C program that rotates the elements of an array to the left by a given number of positions using a function.

32. Implement a C program to merge two sorted arrays into a single sorted array using function.

33. Write a C program to find cube of any number using function.

34. Write a C program to find diameter, circumference and area of circle using functions.

35. Write a C program to find maximum and minimum between two numbers using functions.

36. Write a C program to check whether a number is even or odd using functions.

37. Write a C program to check whether a number is prime, Armstrong or perfect number using functions.

38. Write a C program to find all prime numbers between given interval using functions.

39. Write a C program to print all strong numbers between given interval using functions.

40. Write a C program to print all Armstrong numbers between given interval using functions.

41. Write a C program to print all perfect numbers between given interval using functions.

42. Write a C program to find power of any number using recursion.

43. Write a C program to print all natural numbers between 1 to n using recursion.

44. Write a C program to print all even or odd numbers in given range using recursion.
45. Write a C program to find sum of all natural numbers between 1 to n using recursion.
46. Write a C program to find sum of all even or odd numbers in given range using recursion.
47. Write a C program to find reverse of any number using recursion.
48. Write a C program to check whether a number is palindrome or not using recursion.
49. Write a C program to find sum of digits of a given number using recursion.
50. Write a C program to find factorial of any number using recursion.
51. Write a C program to generate nth Fibonacci term using recursion.
52. Write a C program to find GCD (HCF) of two numbers using recursion.
53. Write a C program to find LCM of two numbers using recursion.
54. Write a C program to display all array elements using recursion.
55. Write a C program to find sum of elements of array using recursion.
56. Write a C program to find maximum and minimum elements in array using recursion.