

**Question 1: Write a Program to find the Area of a Rectangle.**

**Question 2: Write a Program to find Perimeter of a Rectangle**

**Question 3: Write a Program to find Area of a Circle**

**Question 4: Write a Program to find Circumference of a Circle**

**Question 5: Write a Program to find Area of a Triangle**

**Question 6: Write a Program to find Simple Interest**

**Question 7: Write a Program to find Celsius to Fahrenheit Conversion**

**Question 8: Write a Program to find Fahrenheit to Celsius Conversion**

**Question 9: Write a Program to find Volume of a Cube**

**Question 10: Write a Program to find Volume of a Sphere**

**Question 11: Write a Program to find Average of Three Numbers**

**Question 12: Write a Program to find Speed, Distance, Time**

**Question 13: Write a Program to find Kinetic Energy**

**Question 14: Write a Program to find Potential Energy**

**Question 15: Write a Program to find Volume of a Cylinder**

**Question 16: Write a Program to find Total Surface Area of a Cube**

**Question 17: Write a Program to find Area of a Trapezoid**

**Question 18: Write a Program to find Pythagorean Theorem (Hypotenuse)**

**Question 19: Write a Program to find Electrical Power** (`power = voltage * current;`)

**Question 20: Write a C program to find the greater between three nos without using any conditional operator and conditional statement.**

**Question 21: Write a C program to accept two integers and check whether they are equal or not.**

**Question 22: Write a C program to find the eligibility of admission for a professional course based on the following criteria**

**Question 23 Write a program to print the Electricity bill of a given customer**

**Question 24 .program to check whether a triangle can be formed by the given value for the angles.**

**Question 25 Program in C to read any Month Number in integer and display the number of days for this month**

**Question 26. Program in C to read any Month Number in integer and display the number of days for this month**

**Question 27. Write a C program to check whether a given number is positive or negative**

**Question 28 Write a C program to find whether a given year is a leap year or not**

**Question 29. Write a C program to read the age of a candidate and determine whether it is eligible for casting his or her own vote.**

**Question 30. Write a C program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0.**

**Question 31. Write a C program to accept the height of a person in centimeter and categorize the person according to their height.**

**Question 32. Write a C program to find the largest of three numbers**

**Question 33. Write a C program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies**

**Question 34. Write a program to find the Roots of quadratic equation .**

**Question 35. Write Program Simple calculator using switch case**

**Question 36. Problem: Simulate a very basic ATM. Assume a fixed initial balance of 1000.00. Ask the user if they want to 'D' (Deposit) or 'W' (Withdraw).**

- If 'D', ask for the deposit amount and add it to the balance.
- If 'W', ask for the withdrawal amount. Check if the withdrawal amount is less than or equal to the balance. If yes, proceed with withdrawal; otherwise, print "Insufficient balance."
- For any other input, print "Invalid choice."
- After the transaction (or error), always print the current balance.

**Question 37 : Create a simple menu for a program that calculates the area of different shapes. The menu should offer:**

1. Calculate Area of Circle
  2. Calculate Area of Rectangle
  3. Exit
- Ask the user for their choice. Based on the choice, prompt for necessary dimensions and calculate the area. Use a switch statement for menu handling. Assume  $\pi=3.14159$ .

**Question 38 : A store offers discounts based on the total purchase amount and whether the customer is a premium member.**

- Premium Member:
  - Purchase  $\geq 1000$ : 15% discount

- Purchase  $\leq 1000$ : 10% discount
- Regular Customer:
  - Purchase  $\geq 1000$ : 5% discount .
- Purchase  $\leq 1000$ : No discount

Write a C program that takes the purchase amount and a character indicating membership status ('P' for Premium, 'R' for Regular) as input. Calculate and print the final payable amount after applying the discount.

**Question 39 :Write a program Check a Loan Eligibility in c .**

**Question 40 :Write a program Triangle is isosceles, scalene, or equilateral .**

**Question 41. Write a program Print factorial of a number.**

**Question 42. Write a program Reverse a given number.**

**Question 43 Write a Program Find the sum of digits of a number.**

**Question 44 Write a program Print Fibonacci series up to N terms.**

**Question 45 Write a program Find GCD (HCF) of two numbers using loop.**

**Question 46 Write a Program Find GCD (HCF) of two numbers using loop.**

**Question 47. Write a program Print a right-angled triangle of stars.**

**Question 48 .Write a Program Print a right-angled triangle of numbers.**

**Question 49. Write a Program Print an inverted triangle of stars.**

**Question 50. Write a Program Print a pyramid pattern of stars.**

**Question 51 Write a Program Print a diamond pattern using stars.**

**Question 52. Write a Program Print Floyd's triangle.**

**Question 53 Write A program Print Pascal's triangle.**

**Question 54 Write a Program Print a square pattern of stars.**

**Question 55. Write a Program Print a hollow square of stars.**

**Question 56. Display all Armstrong numbers between 1 and 1000.**

**Question 57. Check if a number is an Armstrong number.**

**Question 58 Count the number of vowels in a string using a loop.**

**Question 59. Convert lowercase characters to uppercase in a string using loop.**

**Question 60. Find the largest digit in a number.**

**Question 61. Find the smallest digit in a number.**

**Question 62 Count the frequency of each digit in a number.**

**Question 63 Find the power of a number using loop (like  $x^y$ ).**

**Question 64. Check if a number is a strong number.**

**Question 65. Print all strong numbers between 1 and 1000.**

**Question 66. Generate a pattern like 1, 12, 123, ... up to N lines.**

**Question 67. Generate a pattern like 1, 22, 333, ... up to N lines.**

**Question 68. Generate a binary triangle pattern.**

**Question 69. Generate a checkerboard pattern (1 0 1 0...).**

**Question 70. Print butterfly pattern.**

**Question 71. Print zigzag pattern of stars.**

**Question 72. Print hollow pyramid pattern.**

**Question 73 .Print concentric square number pattern.**

**Question 74. Create a simple digital clock (HH:MM:SS) that runs using loops for 10 seconds.**

**Question 75. Write a program to find the maximum and minimum element in an array.**

**Question 76 Write a program to search for an element in an array (linear search).**

**Question 77. Write a program to reverse an array.**

**Question 78. Write a program to copy one array to another.**

**Question 79. Write a program to count even and odd elements in an array.**

**Question 80. Write a program to count positive, negative, and zero values in an array.**

**Question 81. Write a program to insert an element at a specific position in an array.**

**Question 82. Write a program to sort an array using bubble sort.**

**Question 83. Write a program to sort an array using selection sort.**

**Question 84. Write a program to sort an array using insertion sort.**

**Question 85. Write a program to perform binary search on a sorted array.**

**Question 86. Write a program to merge two sorted arrays into a single sorted array.**

**Question 87. Write a program to delete an element from an array.**

**Question 88. Write a program to remove duplicates from an array.**

**Question 89. Write a program to count frequency of each element in the array.**

**Question 90. Write a program to find the second largest element in an array.**

**Question 91. Write a program to find the second smallest element in an array.**