SR NO	Question 1	Question 2
1	Write a program in C to calculate fibonacci series of n numbers. Take number n from the user.	
2	Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees.	
3	Write a program in C that takes an integer input n (1 ≤ n ≤ 10,000) and performs the following operations: If n is divisible by both 3 and 5, print "RadhaKrushna". If n is divisible by 3 but not by 5, print "Radha". If n is divisible by 5 but not by 3, print "Krushna". Otherwise, check if n is a prime number: If it is, print "Prime". If not, print the sum of all digits in n that are odd. If there are no odd digits, print "No Odd Digits". Constraints: Use only nested if-else and avoid using external libraries for prime number calculation.	Implement a menu-driven program using a switch-case structure to manage the following options: Calculate the factorial of a number using a while loop. Print the Fibonacci series up to a given number using a for loop. Check if a number is a perfect number (a number equal to the sum of its proper divisors) using a do-while loop. Exit the program.
4	Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees	Write a program to print all prime numbers from 1 to 300. (Hint: Use nested loops
5	Write a program to simulate an ATM system. The program should: Display a menu for the user with options: -Check Balance -Deposit Money -Withdraw Money -Exit Use a switch-case statement to handle the selected option. Maintain a balance variable and update it for deposits and withdrawals. Use if-else statements to ensure withdrawals do not exceed the balance and display an error message if it does. Allow multiple transactions using a do-while loop until the user selects the exit option.	Write a program to simulate a shopping cart. The program should: Display a menu of items with their prices. Allow the user to add items to the cart by entering the item number. Use a while loop to allow multiple items to be added. Calculate the total price of items in the cart and Display it.
6	Write a program to check whether a number is a Krishnamurty number or not. A Krishnamurty number is one whose sum of factorial of digits equals the number.	Get the lengths of three sides of a triangle. Check whether the tri angle can be formed or not. If possible then classify the triangle as equilateral, isosceles or scalene. Otherwise, if the triangle cannot be formed give the user a chance to re-enter the lengths of the sides or terminate the program.
7	Write a program to simulate a simplified vending machine using a switch-case statement. The vending machine should: Allow the user to select a product by entering a number (1-5). Accept payment in multiples of 5 using a while loop until the total equals or exceeds the product price. Use an if-else structure to provide change if the payment exceeds the price. Use a goto statement to restart the transaction if the user provides invalid input (e.g., negative payment or invalid product number). Products and their prices: 1: Chips ($25) 2: Soda ($20) 3: Candy ($15) 4: Juice ($30) 5: Exit	Write a program in C to accept a positive integer from the user and check whether it is a Perfect Number. A number is perfect if the sum of its proper divisors (excluding the number itself) is equal to the number.
8	Write a C program that accepts a year from the user and checks if it is a leap year or not using a nested if-else control structure. A year is a leap year if: It is divisible by 4 and not divisible by 100, or It is divisible by 400.	Write a C program that takes a number N and prints a pyramid pattern of numbers 1 1 2 1 2 3 1 2 3 4 1 2 3 4 5

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9	In a company, worker efficiency is determined on the basis of the time required for a worker to complete a particular job. If the time taken by the worker is between 2 – 3 hours, then the worker is said to be highly efficient. If the time required by the worker is between 3 – 4 hours, then the worker is ordered to improve speed. If the time taken is between 4 – 5 hours, the worker is given training to improve his speed, and if the time taken by the worker is more than 5 hours, then the worker has to leave the company. If the time taken by the worker is input through the keyboard, find the efficiency of the worker.	rite a C program to print the following character number pyramid as: 1 B B 2 3 4 D D D D 5 6 7 8 9
10	Write a program to print a pyramid of stars (*) using nested loops.	Create a program to calculate the simple interest based on principal, rate, and tim
11	Write a program in C to accept the marks of a student (out of 100) and assign a grade based on the following criteria: Marks >= 90: Grade A Marks >= 75 and < 90: Grade B Marks >= 50 and < 75: Grade C Marks < 50: Fail	Write a program in C to calculate the electricity bill based on the number of units c Units <= 100: ₹1.50 per unit Units > 100 and <= 300: ₹2.00 per unit Units > 300: ₹3.00 per unit Display the total bill amount based on the entered units.
12	Write a program to determine whether an entered character is a vowel or not.	
13	Write a C program that accepts a sequence of different values and calculates the sum of the values before and after the maximum value. The sum of the values before the maximum value is 0, if there are no values before the maximum. Similarly, the sum of the values after the maximum value is 0, if there are no values after the maximum. Sample Date: 1 2 3 -> 3 0 1 2 9 4 5 -> 3 9 2 2 2 2 -> 0 6	
14	Write a C program to check whether a number is negative, positive or zero.	
15	Develop a C program for a simple number guessing game using a switch statement." Game Rules: The program randomly generates a secret number between 1 and 100. The user is prompted to guess the secret number. The program provides feedback to the user: "Too high!" if the guess is higher than the secret number. "Too low!" if the guess is lower than the secret number. "Congratulations! You guessed the number." if the guess is correct. The user gets a limited number of attempts (e.g., 7 attempts).	
16	A five-digit number is entered through the keyboard. Write a program to obtain the reversed number and to determine whether the original and reversed numbers are equal or not.	
17	Write a C program to calculate factorial of a number using a for loop.	Write a C program to check if a number is prime or not
18	A number is enetered through the keyboard. The number may contain 1, 2, 3, 4, 5 digits. Write a program to find the number of digits in the numbar	
19	Write a C program that asks the user to enter a password. If the entered password is incorrect, the program should use the goto statement to allow the user to try again up to 3 times before displaying an error message.	
20	Write a C program to read temperature in centigrade and display a suitable message according to the temperature state below: Temp < 0 then Freezi Temp 0-10 then Very Cold weather Temp 10-20 then Cold weather Temp 20-30 then Normal in Temp Temp 30-40 then Its Hot Temp >=40 then Its Very Hot	

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21	Write a C program to evaluate the following mathematical expression: z =(a^2+b^2−2abcos(θ))/(a+b+c) where a, b, and c are integers and θ is a floating-point angle in degrees (input from the user). Use #include<math.h> for trigonometric calculations. Demonstrate operator precedence and associativity in the evaluation of the expression by breaking it into multiple sub-expressions. Display all intermediate and final results using formatted output.	

22	Create a program with the following functionalities implemented via a switch-case statement:
	
	Option 1: Generate a multiplication table for a given number m using nested for loops, where the table goes up to m x 10.
	
	Use break to exit the table early if a product exceeds 100.
	Option 2: Check if a given number x is an Armstrong number (e.g., 153 =
	1^3+5^3+3^3) using a do-while loop.
	
	Use continue to skip checking numbers with more than 3 digits.
	Option 3: Exit the program.
		Write a program to generate a diamond pattern based on user input n (1 ≤ n ≤ 50).
		
		The program should use a for loop to print the upper half and a while loop to print
		Use a continue statement to skip printing a row if the row index is divisible by 3.
		Add a goto statement to restart the pattern generation if the user provides an inva
		The pattern should look like this for n = 5:
		  *
		 ***
		*****
		 ***
		  *

23	Write a C program to check whether a triangle is Equilateral, Isosceles or Scalene.	Write a C program to check whether an alphabet is a vowel or a consonant.
24	Write a C program to check if a given number is even or odd using a bitwise AND (&) operator.	
25	Write a C program that finds and prints the first 10 prime numbers using a for loop. Use the break statement when 10 prime numbers have been found.	Write a C program that asks the user for an integer and an operation type: 1: Reverse the digits (e.g., 1234 → 4321) 2: Find the sum of its digits 3: Check if it's a palindrome Use switch-case to perform the selected operation.
26	write a program to calculate parking charges of a vehicle.Enter the types of vehicle as a character(like c for car,b for bus,etc)and number of hours then calculate charges as given below:1)truck/bus-20 Rs per hour. 2)Car-10 Rs per hour 3)Scooter/cycle/motor cycle-5 Rs per hour	Write a program using switch-case to display suggested activities for each day of Monday: "Plan for the week." Wednesday: "Mid-week review." Saturday: "Relax and enjoy." Sunday: "Prepare for the week ahead." Prompt the user to enter a number (1-7) to get the activity..
27	Write a C program that accepts a series of positive integers from the user. The program should follow these rules: 1. Skipping Even Numbers: If the user enters an even number, the program should skip processing it. 2. Processing Odd Numbers: If the number is odd, add it to a cumulative sum and display the running total. 3. The program should run indefinitely until the user enters -1.	
28	write a switch case for a traffic light system where the user can input a color (Red, Yellow, Green) and the program provides a corresponding action: Red: Stop Yellow: Slow down Green: Go	Wrte a switch case for a smaart washing machine which can select a mode of washing 1. Quick wash -> 25 minutes 2. Deep clean -> 45 minutes 3. spin dry 15 minutes 4. rinse -> 10 minutes 5. invalid input please sleect a proper input