- **Taking inputs**

Q1. Write a C++ program that takes two integers as input from the user and prints their sum.

Q2. Write a C++ program that takes the input from user as a character and prints that character ASCII value as output.

Q3. **(Chocolate question to explain need of array)** Write a C++ program that takes 6 integers as input from the user and calculates the sum of all 6 integers.

- **Data types and their variations (long, double etc)**

Q1. Write a C++ program that declares a double variable and assigns it a value of 3.14. Print the value of the variable to the console.

Q2. Write a C++ program that declares a long integer variable and assigns it the value of the largest possible integer. Print the value of the variable to the console.

Q3. **(Chocolate question)** Write a C++ program that declares a short integer variable and assigns it a value of 32767. Increment the variable by 1 and print the value of the variable to the console. Explain why the output is different than what was expected?

- **Loops**

Q1. Write a C++ program that uses a while loop to print the numbers from 1 to 10 to the console.

Q2. Write a C++ program that uses a do-while loop to ask the user to enter a number between 1 and 10 until they enter a valid number.

Q3. **(Chocolate question)** Write a C++ program that uses nested for loops to print a pyramid of asterisks to the console. The pyramid should have a height of 5.

- **Functions, user defined and inbuilt**

Q1. Write a C++ program that defines a function called "greet" that takes a string parameter and prints a greeting message to the console.

Q2. Write a C++ program that defines a function called "discriminant" that takes the value of a, b and c as parameters and calculate the discriminant of equation as per given formula. (here a,b,c are values as per equation ax+by+c = 0)

$$\text{Discriminant (D)} = b^2 - 4ac$$