**Programming Fundamentals**

**Lab 05**

****

**Topic: Functions**

**Faculty of Information Technology**

**UCP Lahore Pakistan**

**\*Do make use of function data type to return output wherever required, by analyzing the output carefully.**

**Q1:** Write a C++ program that calls a function print\_name(). The function is supposed to print your name on console.

# Sample Output:

My name is Ali

**Q2:** Write a C++ program that calls a function print\_table(). The function is supposed to print the table of a user entered number till 5 on console.

# Sample Output:

Enter a number:3

3 \* 1 = 3

3 \* 2 = 6

3 \* 3 = 9

3 \* 4 = 12

3 \* 5 = 15

**Q3:** Create a C++ function find\_div() that accepts two numbers and returns their quotient. Write a main function that calls this function to display the results. Your program should allow the user to enter 2 integer values.

# Sample Output:

Enter Dividend: 10

Enter Divisor: 5

Quotient: 2

Remainder: 0

**Q4:** Write a C++ program which works as a basic calculator. Make a function calculator() that accepts two integer values and a character operand. Your function should perform the operation on the entered integer values depending on the operand entered by the user and return the output to main().

# Sample Output:

Enter operator either + or - or \* or /: +

Enter 1st number: 5

Enter 2nd number: 2

Result: 7

**Q5:** Write a C++ program that calls a function natural\_num(). The function is supposed to find the sum of all natural numbers upto the number entered by user.

**Sample Output:**

Enter number: 5

Sum of all natural numbers: 15

**Q6:** Write a C++ program that calls a function leapyear(). The function is supposed to check whether it is a leap year or not according to the year entered by user.

**Leap Year:**  
If a year is divisible by 4, 100 and 400 then it is a leap year.  
If a year is divisible by 4 but not divisible by 100 then it is a leap year

**Not a Leap Year:**  
If a year is not divisible by 4 then it is not a leap year.  
If a year is divisible by 4 and 100 but not divisible by 400 then it is not a leap year.

**Sample Output:**

Enter year: 2021

Not a leap year

**Q7:** Write a C++ program that calls a function character(). Take an input (character) from user and your function is supposed to check that the input is an alphabet or not.

**Sample Output:**

Enter any character: a

The entered character is an Alphabet