NATIONAL TEXTILE UNIVERSITY
Department of Computer Science
Lab # 6: Programming Fundamentals (COC-1071)

Basic Information			
Registration#		**Name**	
Total Marks		**Marks Obtained**	
Tools:	Dev-C++ 5.4.1		
Objectives	1. Functions with arguments 2. Functions with return value	3. Call by Value and Call by Reference 4.	
Note	Solve the following problems using the concepts we have covered so far		

Function without arguments:

1. Write a function which input a character and tells whether it is a small letter of large letter and not a letter

Function with arguments and return type:

2. Write two functions add and Multiply which has 5 float arguments and print their addition and multiplication on console
    Call this function in main passing constants and variables
3. Write a function, which takes an integer value as argument and print asterisks in a line according to the argument. Use this function in main with **constant and variable**
4. Write a function, which takes two arguments, **first char** and **second int**; prints a rectangle of char of size int. Call this function in main two times with variable and constants
5. Write a function, which takes 5 arguments and print their average. Use this function in main.
6. Write a function, which takes two arguments and print largest. Use ternary operator
7. Input five number between 1-20 using a loop and print # by passing these number to a function
8. Write a function with the name of **fact**, which calculate factorial of a value that is sent as an argument
9. Modify question 2 in such way that addition and multiplication is returned and display in main function
10. Write a function which calculate average of 5 integers and return average. Use add function to add integers.
11. Write a function which take the radius of circle and return the area of circle
12. Write a function which take the radius of circle as first argument and a char (**a** or **c**) as second argument. If second argument is **a** then return the area of circle. If the second argument is **c** then return the circumference of circle
13. Modify the two-number calculator problem and solve it using functions for add, sub etc. Return the results from these functions and display them in main.
14. Write a function that take two values as argument and then swap the values. Call this function from main by input two variables and pass these variables to this function. Display the values of variables after the function call
15. Write a function multiple with two integer arguments and bool return type. The functions check whether first integer is multiple of second if yes return 1 else return 0. Use this function in main in the if condition
16. GCD(Greatest common devisor): Write a function which takes two integers as argument and find gcd of these integers and return it. You can pass integers at any order. Hint: write a loop which executes from 1 to largest digit and find the integer which divides both integers.
17. **Modification of encrypt** function from previous lab in such a way that add 3 to every digit and modulate (%) with 10. Then modify decrypt function accordingly.

Call by Value and Call by Reference:

18. Create reference variables of int, float and character. Input through reference and display using variable
19. Define reference variable of 2-character variables. Input their values and display them through references
20. Implement swap function as call by reference
21. Write a function which take five arguments and input their value. Display the value in main.