National University of Computer and Emerging Sciences



Lab Manual

for

Programming Fundamentals

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| Section | BDS-1D |
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## Objectives

After performing this lab, students will be able to:

* Write C++ Code for the problems involving ‘Functions’.

## Instructions

## For each problem, your filename should be “q Number”.cpp. e.g For Problem 1, create “q1.cpp”.

## Zip all files in a folder and your submission zip filename must be your rollno. e.g “21L1234.zip”. Note your zip file shall contain all the .cpp files for the problems you solved.

## Submit the zip folder on Google classroom.

## Plagiarism is strictly prohibited.

## Good Luck.

## Problems

**Write C++ Code of the following Problems using For Loop.**

**Task#1**

Write a function that return the factorial of a number.

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| Input | **Output** |
| Enter the number:4 | **Factorial of 4 is 24.** |

**Task#2**

Write a function that swap values of two extern variables without using third variable.

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| --- | --- |
| Input | **Output** |
|  | **Value of 1st variable before swapping:30**  **Value of 2nd variable before swapping:15**  **Value of 1st variable after swapping: 15**  **Value of 2nd variable after swapping: 30** |

**Task#3**

Write a function that checks if number is palindrome or not

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| --- | --- |
| Input | **Output** |
| Enter a string: 12321 | **Yes** |

**Task#4**

Write a function that prints Fibonacci series using static variables.

|  |  |
| --- | --- |
| Input | **Output** |
| **Enter the times you want the series: 7** | **0 1 1 2 3 5 8** |

**Problem#5**

Write a CallingFunction() that calls above function based on user input. Also call only the CallingFunction() in main function**.**

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| --- | --- |
| Input | **Output** |
| Enter a number from 1 to 4: | **……………..Executing Task 4…………….** |