**Experiment: 8**

PART A

(PART A: TO BE REFFERED BY STUDENTS)

**Aim:** **To study functions in C++**

**Learning Outcomes: Learner would be able to**

1. Interpret the scenario to decide on creating modules called as function.
2. Explain using algorithm and flowchart working of functions as per scenario.

**Task1:**

**Write a program to check whether given number an Armstrong number using functions.**

A positive integer is called an Armstrong number of order n if

abcd... = an + bn + cn + dn + ...

In case of an Armstrong number of 3 digits, the sum of cubes of each digits is equal to the number itself. For example:

153 = 1\*1\*1 + 5\*5\*5 + 3\*3\*3 // 153 is an Armstrong number.

**Task 2:** Write a program in C++ to find the sum of the series 1!/1+2!/2+3!/3+4!/4+5!/5 using the function

**Task 3:** Write a program to find minimum element in an array using functions

PART B

(PART B: TO BE COMPLETED BY STUDENTS)

Students must submit the soft copy as per following segments within two hours of the practical. The soft copy must be uploaded on the portal at the end of the practical. The filename should be **PPS\_batch\_rollno\_experimentno Example: PPS\_B2\_B001\_Exp1**

|  |  |
| --- | --- |
| **Roll No.:** | **Name:** |
| **Prog/Yr/Sem:** | **Batch:** |
| **Date of Experiment:** | **Date of Submission:** |

**Task 1:**

**Task 2:**

**Task 3:**

**Task 4:**

**Conclusion (Learning Outcomes):** Reflect on the questions answered by you jot down your learnings about the Topic: Functions.

**Home Work Questions:**

1. Write a function to find sum and average of upper diagonal elements in 2-dimensional matrix. Write a main program () to take number of rows, cols and values of matrix from the user.
2. Explain function declaration, function calling and function definition with an example.
3. Describe various categories of function with an example.