**UNIT -2 – Lab Questions**

1. Create a C++ program that uses multiple constructors for a class representing a geometric

point in 2D space. Include a default constructor, a constructor with x and y coordinates,

and a copy constructor.

1. Store Keeper of Super market is finding it difficult to keep track of the stocks in the

shop.So he wants a automated script which pick the total number of consumed

items from each category and calculatethe remaining stock and print those details so

that store keeper can order for those items.Can you help them by developing the

programming logic for satisfying their needs? Use the concept of Functional Overloading to implement the task.

Constraints:

2000<side<7000

1≤ totalavi< 1500

1≤ consumed ≤1000

1. Write a C++ program to demonstrate constructor overloading for a class called

Person with attributes name, age, and city. Implement constructors to initialize the object

with different sets of parameters.

1. Write a C++ program that demonstrates the use of a copy constructor and

destructor in a class called StringWrapper. The class should manage a dynamic character

array and provide proper memory management.

1. Design a C++ program that demonstrates the copy constructor which initializes the value and the displays the values by creating objects.
2. Write a C++ program that uses constructor overloading to dynamically allocate memory for an array of integers in a class called DynamicArray, and use a destructor to release the allocated memory.
3. Design a matrix class with necessary member function to create matrices of arbitrary

size. Overload the ‘+’ and ‘- ‘ operators to perform addition and subtractions of matrix

objects.

1. Write a C++ program to accept to two times in the format of (hh:mm:ss) and find sum by perform addition of two Time class objects.
2. Create an interaction diagram that can be used to model the interactions among the various elements of a basic web app. You can modify this template to visualize the control flow of a system and describe the interactions amongst objects within it.