OBJECT ORIENTED PROGRAMMING
LAB ASSIGNMENT -2

(Topics – Basics of C++, Classes and Objects)

Programming Questions

1. Create a structure in C++ containing the details of Students as details below and a main function to execute the structure.

   Data Members(properties):

   > *Name*
   > *Roll No*
   > *Degree*
   > *Hostel*
   > *CurrentCGPA*

   Member Function(behavior):

   > *addDetails();*
   > *updateDetails();*
   > *updateCGPA();*
   > *updateHostel();*
   > *displaydetails();*

2. Differentiate between private and public access/scope. Perform the question no. 1 with class instead of structure with having the data members private and some member functions in private scope and some in public scope.

3. Create a code snippet that illustrates the following: Calling of private member functions inside public member function

4. Define a class Rectangle with variables width and height of integer typwe along with following:

   (a) void getdata() to initialize object values
   (b) void calculatearea() to calculate and display the area.

5. Define a class Complex with variables real and imaginary along with following:

   (a) void setComplex (float, float) to initialize object values.
   (b) void displayComplex() to show the complex number
   (c) Pass and return objects to calculate sum of two complex numbers. Display the sum.

6. Implement *scope resolution operator* : : for the following uses:

(a)Class functions defined outside the class

(b) Access a global variable with same name as a local variable

(c)Access a static variables

(d) Use inbuilt libraries (cin cout with scope resolution operator)

7. Create a code to implement the *namespace* and use similar variables and functions defined in different code sections.