**PSG COLLEGE OF TECHNOLOGY, COIMBATORE.**

**Department of Applied Mathematics and Computational Sciences**

**M.Sc. SS (2nd Semester)**

**18XW27 Object Computing Lab**

**Problem Sheet – 2 (Functions)**

1. Write a C++ program that prompts the user for the radius of a circle then calls inline function funCircleArea to calculate the area of that circle.
2. Write a complete C++ program with the two alternate functions specified below, of which each simply triples the variable count defined in main. Then compare and contrast the two approaches. These two functions are: (a) Function tripleByValue that passes a copy of count by value, triples the copy and returns the new value and (b) Function tripleByReference that passes count by reference via a reference parameter and triples the original value of count through its alias (i.e., the reference parameter).
3. Templatize the **fibonacci( )** function on the type of value that it produces (so it can produce **long**, **float**, etc. instead of just **int**).
4. Write down the overloaded functions to perform the addition between two integers, floats, chars and two arrays, name the class as **MERGE**.
5. Write a class ‘**Maximum’** to find the biggest of at most three numbers from any data type using function template.
6. Create a class ‘**Power’** to find the value of xy. Here ‘x’ may be of any data type, but ‘y’ should be an integer and by default 0.