**18CSC202J – OODP – C++ Lab 5 Exercises**

**Topic: Constructor Overloading & Method Overloading**

1. Write a program to print the names of students by creating a Student class. If no name is passed while creating an object of the Student class, then the name should be "Unknown", otherwise the name should be equal to the String value passed while creating the object of the Student class.
2. Suppose you have a Piggie Bank with an initial amount of $50 and you have to add some more amount to it. Create a class 'AddAmount' with a data member named 'amount' with an initial value of $50. Now make two constructors of this class as follows:  
   1 - without any parameter - no amount will be added to the Piggie Bank  
   2 - having a parameter which is the amount that will be added to the Piggie Bank  
   Create an object of the 'AddAmount' class and display the final amount in the Piggie Bank.
3. Create a class to print the area of a square and a rectangle. The class has two functions with the same name but different number of parameters. The function for printing the area of rectangle has two parameters which are its length and breadth respectively while the other function for printing the area of square has one parameter which is the side of the square.
4. A boy has his money deposited $1000, $1500 and $2000 in banks-Bank A, Bank B and Bank C respectively. We have to print the money deposited by him in a particular bank.  
   Create a class 'Bank' with a function 'getBalance' which returns 0. Make its three subclasses named 'BankA', 'BankB' and 'BankC' with a function with the same name 'getBalance' which returns the amount deposited in that particular bank. Call the function 'getBalance' by the object of each of the three banks.
5. Create a class 'Degree' having a function 'getDegree' that prints "I got a degree". It has two subclasses namely 'Undergraduate' and 'Postgraduate' each having a function with the same name that prints "I am an Undergraduate" and "I am a Postgraduate" respectively. Call the function by creating an object of each of the three classes.
6. Write a C++ program to Swap variables using Function Overloading.
7. Write a C++ Program to check Palindrome using function overloading.
8. Write a C++ program to find Volume of Cube, Cylinder, Sphere using Function Overloading.
9. Write a C++ Program to Compare Two Strings using Overloading.
10. Write a C++ Program with three different functions with same name to find the sum of digits using function overloading.