**18CSC202J – OODP – C++ Lab 3 Exercises**

**Topic: Class and Object**

1. Create a class named 'Student' with a string variable 'name' and an integer variable 'roll\_no'. Assign the value of roll\_no as '2' and that of name as "John" by creating an object of the class Student.

2. Write a C++ program to illustrate the concept of class and object creation. (Ask students to create a class, methods and invoke them inside main method).

3. Write a C++ program to define a class Date that holds day, month and year as data members. Also write necessary member methods to

a) Read a date

b) Print a date in different formats

c) Find the date exactly one week after the given date. e.g. If the given date is 30-10-

2013, then the resultant date is 6-11-2013.

4. Define a class named Circle which can be constructed by a radius. The Circle class has two methods for computing perimeter and area, respectively.

5. Write a C++ class which has two functions get\_Str and print\_Str. get\_Str accept a string

from the user and print\_Str print the string in upper case and lower case.

6. Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' with a function to print the area and perimeter.

7. Print the average of three numbers entered by the user by creating a class named 'Average' having a function to calculate and print the average without creating any object of the Average class.

8. Develop a program of class Room with attributes length, breadth and height and its object room1 and room2 to calculate the area and volume of a room using function.

9. Design a program of class Car with some attributes and its object to print its attributes.

10. Find whether the student is eligible for the current year placement from the inputs student

name, CGPA, gender (M/F), number of backlogs. Implement the above by using object oriented programming concept.

11.Employee payroll system

Employee name.

Employee ID

Basic pay

HRA

TA

DA

Grade pay

Deduction 5% from Basic pay

Find the Gross pay, Net pay (Grade pay + deductions) and print all the details given

above, using class and object of get () method and call ( ) method.

12. Write a program that would print the information (name, year of joining, salary, address) of three employees by creating a class named 'Employee'. The output should be as follows:  
Name        Year of joining        Address  
Robert        1994        64C- Walls Street  
Sam        2000        68D- Walls Street  
John        1999        26B- Walls Street

13. Add two distances in inch-feet by creating a class named 'AddDistance'.

14. Perform addition operation on complex data using class and object. The program should ask for real and imaginary part of two complex numbers, and display the real and imaginary parts of their sum.

15. C++ Program to find Factorial by defining Function outside of the class.