DEPARTMENT OF CSE

OBJECT ORIENTED PROGRAMMING

WEEK – I

WEEK-1: JAVA BASICS

a. Write a java program that prints all real solutions to the quadratic equation $ax^2+bx+c=0$. Read in a, b, c and use the quadratic formula.

b. The Fibonacci sequence is defined by the following rule. The first two values in the sequence are 1 and 1. Every subsequent value is the sum of the two values preceding it. Write a java program that uses both recursive and non recursive functions.

S.No	Problem Statement
1	Write a Java program that prints all real solutions to the quadratic equation $ax^2+bx+c=0$. Read in a, b, c and use the quadratic formula.
2	Write a Java program to find largest of the three given number.
3	Write a Java program to find smallest of the three given number.
4	Write a Java program to find the given two numbers are equal or less than the other or greater than the other.
5	An electricity board charges the following rates for the use of electricity: For the first 200 units: 80 per unit For the next 100 units: 90per unit Beyond 300 units: Rs.1.00 per unit All users are charged a minimum of Rs. 100 as meter charge. If the total amount is more than Rs.400, then an additional surcharge of 15% of total amount is charged. Write a Java program to read the name of user and number of units consumed and print out the charges with names.
6	Admission to a professional course is subjects to the following conditions: (a) Marks in Mathematics>=60 (b) Marks in Physics>=50 (c) Marks in Chemistry>=40 (d) Total in all three subjects>=200 or Total in Mathematics and Physics>=150 Given the marks in the three subjects, write a Java program to process the applications to list the eligible candidates.

7	Write a Java program to find whether given triangle is scalene or isosceles or equilateral.
8	Write a Java program to grades of a student if the marks are given between 0 and 100.
9	The Fibonacci sequence is defined by the following rule. The first two values in the sequence are 1 and 1. Every subsequent value is the sum of the two values preceding it. Write a java program that uses non - recursive function.
10	The Fibonacci sequence is defined by the following rule. The first two values in the sequence are 1 and 1. Every subsequent value is the sum of the two values preceding it. Write a java program that uses recursive function.