1. Modifiers are used to restrict the access instance variables. Name any three

modifiers and their purpose.

2)  List any three differences between an instance variable and a class variable.

3)  What is a class constructor? Can constructors be overloaded?

4) What is the difference between procedural programming and Object oriented

programming.

5) What is meant by *overloading* the constructor? Give an example to

illustrate how this is done.

6) Briefly explain what is object oriented, and give any two advantages of using it.

7) Briefly explain the relationship between a class and instance.

8) How do we differentiate a Constructor and Method in a class?

9) What is the difference between a *class* and an *object*?

10) What is meant by *information hiding*, in the context of objectorientation?

11) What is *polymorphism*?

(12) What is *method overloading*? Give an example to illustrate this concept.

13) Consider the following Java program.

import java.io.\*;

public class Fruits {

String name;

int weight;

float cost;

public Fruits(String name, float cost)

{

this.name = name;

this.cost = cost;

}

public Fruits(String name, int weight, float cost)

{

tbis.name = name;

this.weight = weight;

this.cost = cost;

}

public Fruits( ) { }

public void getDetails( ) {

try {

BufferedReader br = new BufferedReader(new

InputStreamReader(System.in));

System.out.println(“enter the name :”);

name = br.readLine( );

System.out.println(“enter the weight :”);

weight = Integer.parseInt(br.readLine( ));

System.out.println(“enter the cost :”);

weight = Float.parseFloat(br.readLine( ));

} catch (IOException e) { }

}

public void displayDetails( ) {

System.out.println(“The name of the fruit is :”+name);

System.out.println(“The weight of the fruit is :”+weight);

System.out.println(“The cost of the fruit is :”+cost);

}

public static void main(String args[ ]) {

Fruits f1 = new Fruits(“mango”, 2.50f);

f1.weight = 250;

f1.displayDetails( );

Fruits f2 = new Fruits(“orange”, 150, 1.20f);

f2.displayDetails( );

Fruits f3=new Fruits( );

f3.getDetails( );

f3.displayDetails( );

}

}

From the above program,

(i) Identify the constructors used

(ii) Identify the methods used

(iii) List the names of different objects created.

14)

(i) Declare a class Email which contains data members password, userid

of string type, and size of integer type.

(ii) Implement a constructor to initialize all the attributes of Email object.

(iii) Implement a method ValidateSuperUser which will return true if the password

is “supervisor”, and the userid is “9999”, otherwise return false.

(iv) Create an object hacker of Email type, and activate the ValidateSuperUser.

1. What is the result when you compile and run the following code? Justify your answer.

class Overload {

public static void main( String args[] ) {

Overload overload = new Overload();

Overload.methodOne();

Overload.methodOne( 8 );

}

void methodOne() {

System.out.println(“no arguments”);

}

void methodOne( int x) {

System.out.println(“ integer value=” + x );

}

}

16)

(i) Declare a class Card which contains data members id of string type, and

balance of double type.

(ii) Implement a constructor to initialize all the attributes of Card object.

(iii) Implement a method checkMore which will return 1 for transaction with

balance above 56000, otherwise return 0.

(iv) Write java codes to activate method checkMore using object pay of Card

category.

17) Write a method **average** with two parameters of double types. It returns the average

value of both values.

18) Write a method **iteration** which receives a parameter **no** of integer type. It will

display the square values for numbers from 1 to no. [5]

(19) Create a class Taxi that includes

(i) two private attributes of type double : duration ( the current journey done by

the taxi ) and maxDuration ( the taxi’s maximum journey).

(ii) one public constructor to set the maxDuration attribute to 8000 kg

(iii) one accessor method for duration member

(iv) checkReliable method. This method will calculate the difference between

current duration, and maximum duration taken by the taxi. If the difference is

above 100, it will return 2, otherwise it will return 1.

(v) Write a main program to create object comfort of Taxi type. It will make

activate all the methods define in the class.