1. Create a inheritance class. (Super class as Vehicle and 2 subclasses Car and Bike and inherit the Vehicle class methods)

**package** com.ust.assessment3;

//Create a inheritance class. (Super class as Vehicle

//and 2 subclasses Car and Bike and inherit the Vehicle class methods)

**class** Vehicle {

**public** String engine;

**public** **int** wheels;

**public** **int** seats;

**void** horn()

{

System.***out***.println("have horn");

}

}

**class** Bike **extends** Vehicle {

**public** String handle;

}

**class** Car **extends** Vehicle {

**public** String steering;

**void** ac() {

System.***out***.println("car has AC");

}

}

**public** **class** Question1 {

**public** **static** **void** main(String[] args) {

Bike bike = **new** Bike();

Car car = **new** Car();

bike.handle = "short";

bike.engine = "Petrol";

bike.horn();

System.***out***.println(bike.engine);

car.ac();

}

}



1. Depict programmatically the Method overloading and Method overriding concepts.

**package** com.ust.assessment3;

//Depict programmatically the Method overloading and Method overriding concepts.

**class** MethodOverloading

{

**void** add(**int** a,**int** b)

{

System.***out***.println("sum is(1st method):" +(a+b));

}

**void** add(**int** a,**int** b,**int** c){

System.***out***.println("sum is(2nd method):" +(a+b+c));

}

}

//overriding

**class** Animal{

**void** eat(){

System.***out***.println("eating...");

}

}

**class** Dog **extends** Animal{

**void** eat(){

System.***out***.println("dog eating bread...");

}

}

**public** **class** Question2 {

**public** **static** **void** main(String[] args) {

MethodOverloading obj1 = **new** MethodOverloading();

Dog obj2= **new** Dog();

obj1.add(10, 20);//overloading

obj1.add(10, 20,30); //overloading

obj2.eat();//overriding

}

}



1. Create an abstract class and extend that class and try to create the object of the abstract class in a program and execute.

**package** com.ust.assessment3;

//Create an abstract class and extend that class and try to create the

//object of the abstract class in a program and execute.

**abstract** **class** Animal1{

//abstract method

**public** **abstract** **void** sound();

}

**class** Dog1 **extends** Animal1{

**public** **void** sound(){

System.***out***.println("Bark");

}

}

**public** **class** Question3 {

**public** **static** **void** main(String args[]){

Animal1 obj = **new** Dog1();

obj.sound();

}

}

