Question No-1

**package** com.assignment;

**public** **class** BankAccount {

**protected** **double** balance;

**public** **void** deposit(**int** amount) {

**if** (amount > 0) {

**this**.balance = balance + amount;

System.***out***.println("Available Balance : "+balance);

}

}

**public** **void** withdraw(**int** amount) {

**if**(amount<balance) {

**this**.balance=balance-amount;

System.***out***.println("Your current available balance after withdrawl :"+balance);

}

}

}

**package** com.assignment;

**public** **class** SavingAccount **extends** BankAccount{

@Override

**public** **void** withdraw(**int** amount) {

**if**(amount<balance) {

System.***out***.println("Withdrawl Amount : "+amount);

balance=balance-amount;

System.***out***.println("Available Balance After Withdrawl : "+balance);

}**else** **if**(amount>balance) {

System.***out***.println("Insufficient balance in your Account!!");

}

}

}

**package** com.assignment;

**public** **class** TestMain {

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

SavingAccount savingaccount=**new** SavingAccount();

savingaccount.deposit(5000);

savingaccount.withdraw(6000);

}

}

Question No-2

**package** com.assignment;

**public** **class** Vehicle {

String make;

**int** year;

**public** Vehicle() {

}

**public** Vehicle(String make, **int** year) {

**this**.make = make;

**this**.year = year;

}

}

**package** com.assignment;

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

**private** String model;

**public** Car() {

}

**public** Car(String make,**int** year,String model) {

**super**(make, year);

**this**.model = model;

}

**public** **void** dispalyDetails() {

System.***out***.println("Make : "+**this**.make);

System.***out***.println("Year : "+**this**.year);

System.***out***.println("Model : "+**this**.model);

}

}

**package** com.assignment;

**public** **class** TestMain {

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

Car car=**new** Car("BMW", 2024, "X1");

Car car1=**new** Car("VERNA", 2022, "X6");

car.dispalyDetails();

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

car1.dispalyDetails();

}

}

Question No-3

**package** com.assignment;

**public** **class** Animal {

String name="Tommy";

**public** **void** eat() {

System.***out***.println("This is a animal class eat() method");

}

**public** **void** sleep() {

System.***out***.println("This is a animal class sleep() method");

}

}

package com.assignment;

public class Dog extends Animal{

public void bark() {

System.out.println("This is a Dog class bark() method");

}

public static void main(String[] args) {

System.out.println("Creating object of Animal Class :");

Animal animal=new Animal();

System.out.println("Name :"+animal.name);

animal.eat();

animal.sleep();

System.out.println("Creating object of Dog Class :");

Dog dog=new Dog();

System.out.println("Name : "+dog.name);

dog.eat();

dog.sleep();

dog.bark();

}

}

Question No-4

**package** com.assignment;

**public** **class** Student {

**private** **int** studentId;

**private** String studentName;

**private** String studentCity;

**private** **int** studentAge;

**public** Student() {

}

**public** Student(**int** studentId,String studentName,String studentCity,**int** studentAge) {

**this**.studentId=studentId;

**this**.studentName=studentName;

**this**.studentCity=studentCity;

**this**.studentAge=studentAge;

}

**public** **int** setstudentId() {

**return** studentId;

}

**public** String setstudentName() {

**return** studentName;

}

**public** String setstudentCity() {

**return** studentCity;

}

**public** **int** setstudentAge() {

**return** studentAge;

}

**public** **int** getStudentId() {

**return** studentId;

}

**public** String getStudentName() {

**return** studentName;

}

**public** String getStudentCity() {

**return** studentCity;

}

**public** **int** getStudentAge() {

**return** studentAge;

}

@Override

**public** String toString() {

**return** "Student [studentId=" + studentId + ", studentName=" + studentName + ", studentCity=" + studentCity

+ ", studentAge=" + studentAge + "]";

}

}**package** com.assignment;

**public** **class** TestStudent {

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

Student student1=**new** Student(101, "RUSHIKESH", "PUNE", 28);

Student student2=**new** Student(102, "SUMANT", "LATUR", 24);

Student student3=**new** Student(103, "SEJAL", "NANDED", 23);

Student student4=**new** Student(104, "VAISHALI", "DHULE", 24);

Student student5=**new** Student(105, "RISHABH", "UP", 25);

System.***out***.println(student1);

System.***out***.println(student2);

System.***out***.println(student3);

System.***out***.println(student4);

System.***out***.println(student5);

}

}

Question No-5

**package** com.vehicle;

**public** **class** Vehicle {

**public** **void** startEngine() {

System.***out***.println("This is Vehicle class startEngine() method");

}

**public** **void** stopEngine() {

System.***out***.println("This is Vehicle class stopEngine() method");

}

}

**package** com.vehicle;

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

@Override

**public** **void** startEngine() {

System.***out***.println("This is Car class startEngine() method");

}

@Override

**public** **void** stopEngine() {

System.***out***.println("This is Car class stopEngine() method");

}

}

**package** com.vehicle;

**public** **class** Motorcycle **extends** Car {

@Override

**public** **void** startEngine() {

System.***out***.println("This is Motorcycle class startEngine() method");

}

@Override

**public** **void** stopEngine() {

System.***out***.println("This is Motorcycle class startEngine() method");

}

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

System.***out***.println("Vehicle class :");

Vehicle v=**new** Vehicle();

v.startEngine();

v.stopEngine();

System.***out***.println("Car class :");

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

car.startEngine();

car.stopEngine();

System.***out***.println("Motorcycle class :");

Motorcycle mc=**new** Motorcycle();

mc.startEngine();

mc.stopEngine();

}

}