

Question 1

Correct

Marked out of 5.00

Create a class Student with two private attributes, name and roll number. Create three objects by invoking different constructors available in the class Student.

Student()

Student(String name)

Student(String name, int rollno)

Input:

No input

Output:

No-arg constructor is invoked

1 arg constructor is invoked

2 arg constructor is invoked

Name =null , Roll no = 0

Name =Rajalakshmi , Roll no = 0

Name =Lakshmi , Roll no = 101

For example:

Test	Result
1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101

Answer: (penalty regime: 0 %)

```
1 public class Student{
2     private String name;
3     private int rollno;
4     public Student(){
5         System.out.println("No-arg constructor is invoked");
6         this.name=null;
7         this.rollno=0;
8     }
9     public Student(String name){
10        System.out.println("1 arg constructor is invoked");
11        this.name=name;
12        this.rollno=0;
13    }
14    public Student(String name,int rollno){
15        System.out.println("2 arg constructor is invoked");
16        this.name=name;
17        this.rollno=rollno;
18    }
19    public void display(){
20        System.out.println("Name =" + name + " , Roll no = " + rollno);
21    }
22    public static void main(String[] args){
23        Student s1=new Student();
24        Student s2=new Student("Rajalakshmi");
25        Student s3=new Student("Lakshmi",101);
26        s1.display();
27        s2.display();
28        s3.display();
29    }
30 }
```

	Test	Expected	Got	
✓	1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101	✓

Passed all tests! ✓

//

Question 2

Correct

Marked out of 5.00

Create a Class Mobile with the attributes listed below,

```
private String manufacturer;  
private String operating_system;  
public String color;  
private int cost;
```

Define a Parameterized constructor to initialize the above instance variables.

Define getter and setter methods for the attributes above.

for example : setter method for manufacturer is

```
void setManufacturer(String manufacturer){  
    this.manufacturer= manufacturer;  
}
```

```
String getManufacturer(){  
    return manufacturer;}  

```

Display the object details by overriding the toString() method.

For example:

Test	Result
1	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000

Answer: (penalty regime: 0 %)

```
1 public class Mobile{  
2     private String manufacturer;  
3     private String operating_system;  
4     public String color;  
5     private int cost;  
6     public Mobile(String manufacturer,String operating_system,String color,int cost){  
7         this.manufacturer=manufacturer;  
8         this.operating_system=operating_system;  
9         this.color=color;  
10        this.cost=cost;  
11    }  
12    public void setMan(String Manufacturer){  
13        this.manufacturer=manufacturer;  
14    }  
15    public String getMan(){  
16        return manufacturer;  
17    }  
18    public void setOs(String operating_system){  
19        this.operating_system=operating_system;  
20    }  
21    public String getOs(){  
22        return operating_system;  
23    }  
24    public void setCol(String color){  
25        this.color=color;  
26    }  
27    public String getCol(){  
28        return color;  
29    }  
30    public void setCost(int cost){  
31        this.cost=cost;  
32    }  
}
```

```

33     public int getCost(){
34         return cost;
35     }
36     public String toString(){
37         return "manufacturer = " + manufacturer + "\n"+
38             "operating_system = " + operating_system + "\n"+
39             "color = " + color + "\n"+
40             "cost = " + cost;
41     }
42     public static void main(String[] args){
43         Mobile m1=new Mobile("Redmi","Andriod","Blue",34000);
44         System.out.println(m1);
45     }
46 }

```

	Test	Expected	Got	
✓	1	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000	✓

Passed all tests! ✓

Question 3

Correct

Marked out of 5.00

Create a class called "Circle" with a radius attribute. You can access and modify this attribute using getter and setter methods. Calculate the area and circumference of the circle.

Area of Circle = πr^2

Circumference = $2\pi r$

Input:

2

Output:

Area = 12.57

Circumference = 12.57

For example:

Test	Input	Result
1	4	Area = 50.27 Circumference = 25.13

Answer: (penalty regime: 0 %)

Reset answer

```

1 import java.util.Scanner;
2 public class Circle {
3     private double radius;
4     public Circle(double radius){
5         this.radius=radius;
6     }
7     public double getRad(){
8         return radius;
9     }
10    public void setRad(double radius){
11        this.radius=radius;
12    }
13    public double calculateArea(){
14        return Math.PI*radius*radius;
15    }
16    public double calculateCircum(){
17        return 2*Math.PI*radius;
18    }
19    public static void main(String[] args){
20        Scanner obj=new Scanner(System.in);
21        double radius=obj.nextDouble();
22        Circle circle=new Circle(radius);
23        double area=circle.calculateArea();
24        double circumference=circle.calculateCircum();
25        System.out.printf("Area = %.2f\n",area);
26        System.out.printf("Circumference = %.2f\n",circumference);
27    }
28 }
```

	Test	Input	Expected	Got	
✓	1	4	Area = 50.27 Circumference = 25.13	Area = 50.27 Circumference = 25.13	✓

	Test	Input	Expected	Got	
✓	2	6	Area = 113.10 Circumference = 37.70	Area = 113.10 Circumference = 37.70	✓
✓	3	2	Area = 12.57 Circumference = 12.57	Area = 12.57 Circumference = 12.57	✓

Passed all tests! ✓

◀ Lab-04-MCQ

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