Labsheet 7

01)

Result – 100

Why? - x variable value can't change in the class Undergraduate

02)

```java
package com.mycompany.shapeobj;
abstract class Shape
{
   abstract double calculateArea();
   public void display()
   {
       System.out.println("Shape: ");
   }
}

public class Circle extends Shape
{
   private double radius;
   public Circle(double r)
   {
       radius=r;
   }

   @Override
   double calculateArea()
   {
       return 3.1459f*radius*radius;
   }
}

public class Rectangle extends Shape
{
   private double length,width;
   public Rectangle(double l,double w)
   {
       length=l;
       width=w;
   }
```

```java
    @Override
    double calculateArea()
    {
        return length*width;
    }
}

public class ShapeObj
{

    public static void main(String[] args)
    {
        Circle c1=new Circle(10);
        c1.calculateArea();
        Rectangle r1=new Rectangle(10,5);
        r1.calculateArea();

        System.out.println("Area of circle is "+c1.calculateArea());
        System.out.println("Area of rectangle is "+r1.calculateArea());
    }
}
```