```java
import java.util.Scanner;
abstract class shape
{
    double dim1, dim2, radius;
    shape (double a, double b)
    {
        dim1 = a;
        dim2 = b;
    }
    shape (double a)
    {
        radius = a;
    }
    abstract void area();
}

class Rectangle extends shape
{
    Rectangle (double a, double b)
    {
        super (a, b);
    }
    void area()
    {
        system.out.println ("Area of Rectangle " +
        (dim1 * dim2));
    }
}

class triangle extends shape
{
    triangle (double a, double b)
    {
        super (a, b);
    }
    void area()
    {
```

```java
        System.out.println ("area of triangle: "+ (.5cm * dim..

    }

}

class Circle extends shape
{

    Circle (double a)
    {
        super (a);
    }

    void area ()
    {
        System.out.println ("area of circle " +
        (3.14 * (radius) * (radius) );
    }

}

class AbstractAreamain
{

    public static void main (string args[])
    {

        scanner s = newScanner (system.in);
        System.out.println (" Rushila. Y ");
        system.out.println (" 1BMA2CS226 ");
        system.out.println ("Enter the length & breadth
        of a rectangle");
        double l = s.nextInt ();
        double b = s.nextInt ();
        system.out.println ("Enter the base and height")
        double n1 = s.nextInt ();
        double h2 = s.nextInt ();
        system.out.println ("Enter the circle ");
        double r = s.nextInt ();
        shape sh;
        Rectangle rect = new Rectangle (l, b);
        Triangle tri = new Triangle (h1, h2);
        Circle ar = new Circle (r);
```

```
sh = rect ;
sh.area();
sh = tri ;
sh.area();
sh = cir ;
sh.area();
}
}
```

Output:

Rushila.V
1BM22CS226
enter the length and breadth of rectangle
9
5
enter the base and height
3
4
enter the circle
9
area of rectangle: 45.0
area of triangle: 6.0
area of circle: 254.34

2/01/24