(4). Develop a Java program to create an abstract class named shape that contains two integers and an empty method named print area (). Provide three classes named Rectangle, Triangle and Circle such that each one of the class extends the class shape. Each one of the classes contain only the method print Area () that print the area of the given shape.

=>

```
import java.util.*;
abstract class a {
        double x,y;
    a (double i, double j) {
        x=i ; y=j;
    }
    abstract double area ();
}
class rect extends a {
    rect (double i, double j) {
        super (i,j);
    }
    double area () {
        return x*y ;
    }
}
class tri extends a {
    tri (double i, double j) {
        super (i,j);
    }
    double area () {
        return 0.5*x*y
```

```java
class cir extends a {
    cir (double i) {
        super (i, i);
    }
    double area() {
        return 3.14*x*y;
    }
}

class execute {
    public static void main (String args[]) {
        Scanner sc = new Scanner (System.in);

        System.out.println(" Enter the length and breadth
                            of rectangle:");
        double l = sc.nextInt();
        double b = sc.nextInt();

        System.out.println("Enter the height and base of the
                            triangle:");
        double h = sc.nextInt();
        double ba = sc.nextInt();

        System.out.println("Enter the radius of circle:");
        double ra = sc.nextInt();

        rect r = new rect (l,b);
        tri t = new tri (h, ba);
        cir c = new cir (ra);

        System.out.println("Area of rectangle is "+r.area());
        System.out.println("Area of triangle is "+t.area());
        System.out.println("Area of circle is "+c.area());
    }
}
```

```
1. Area of rectangle
2. Area of triangle
3.Area of circle
Enter your choice
1
Enter length and breadth:
20 30
Area of rectangle= 600.0

C:\Users\bmsce\Desktop\1BM21CS064>java abstarea
1. Area of rectangle
2. Area of triangle
3.Area of circle
Enter your choice
2
Enter base and height:
20 30
Area of triangle= 300.0

C:\Users\bmsce\Desktop\1BM21CS064>java abstarea
1. Area of rectangle
2. Area of triangle
3.Area of circle
Enter your choice
3
Enter radius:
20
Area of circle= 1256.8

C:\Users\bmsce\Desktop\1BM21CS064>javac account.java
```