LAB PROGRAM 4

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

CODE:

```
abstract class Shape
{
int a=3;
int b=4;
abstract public void print_area();
}
class rectangle extends Shape
{
public int area_rect;

public void print_area()
{
area_rect=a*b;
System.out.println("\n The area of rectangle is: "+area_rect);
}
}
class triangle extends Shape
{
int area_tri;

public void print_area()
{
area_tri=(int) (0.5*a*b);
System.out.println("\n The area of triangle is: "+area_tri);
}
}
class circle extends Shape
```
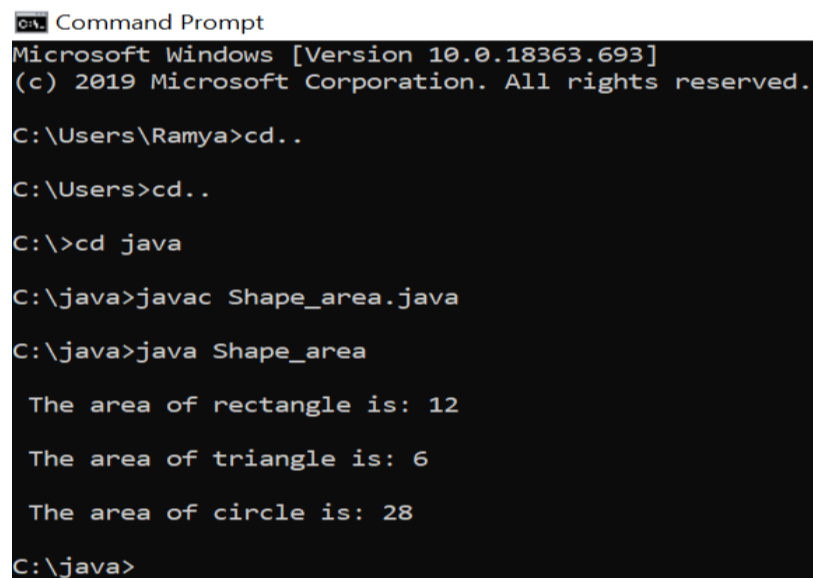
```java
{
int area_circle;

public void print_area()
{
area_circle=(int) (3.14*a*a);
System.out.println("\n The area of circle is: "+area_circle);
}
}
class Shape_area{
public static void main(String[] args){
rectangle rec = new rectangle();
rec.print_area();
triangle tri = new triangle();
tri.print_area();
circle cir = new circle();
cir.print_area();
}
}
```

OUTPUT: