LAB PROGRAM-4

1BM19CS143
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```
abstract class Shape {
 int dim1;
 int dim2;
 Shape (int a, int b){
  dim1 = a;
  dim2 = b;
 }
 abstract int printArea() ;
}
class Rectangle extends Shape {
 Rectangle(int a, int b) {
  super(a, b);
 }
  int printArea(){
  System.out.println("Inside Area for Rectangle.");
  return dim1*dim2;
 }
}
class Triangle extends Shape{
 Triangle (int a, int b) {
 super (a,b);
 }
  int printArea(){
  System.out.println("Inside Area for Triangle.");
  return dim1*dim2/2;
 }
}
class Circle extends Shape {
 Circle ( int a, int b) {
  super(a,b);
```

```
}
int printArea(){
System.out.println("Inside Area for Circle.");
return 22/7 * dim1 * dim1;
}
}
class AbstractAreas {
 public static void main(String args[]){
Rectangle r = new Rectangle(10,10);
Triangle t = new Triangle(4,5);
Circle c = new Circle(4,0);
 Shape s;
 s = r;
 System.out.println("Area is " + s.printArea());
 s = t;
 System.out.println("Area is "+s.printArea());
 s = c;
 System.out.println("Area is " + s.printArea());
 }
}
```

Output :

```
Inside Area for Rectangle
Area is 100
Inside Area for Triangle
Area is 10
Inside Area for Circle.
Area is 48.
```