**Program1:**

**/\*Assignment for basic OOP concepts \*/**

Import java.io.\*;

import java.lang.\*;

import java.util.\*;

abstract class Demo

{

public int cnt=0;

abstract void display();

abstract int count();

}

class Derived extends Demo

{

void display()

{

System.out.println("This is ABSTRACT Feature of Java Language");

}

int count()

{

//cnt++;

return ++cnt;

}

public static void main(String[] args) {

Derived d=new Derived();

d.display();

System.out.println("COUNT of Method Calling:"+d.count());

}

}

**/\***

**OUTPUT:**

**D:\VIT EDUCATION\POPL>javac Derived.java**

**D:\VIT EDUCATION\POPL>java Derived**

**This is ABSTRACT Feature of Java Language**

**COUNT of Method Calling:1**

**D:\VIT EDUCATION\POPL>**

**\*/**

**Program 2-**

import java.io.\*;

import java.lang.\*;

import java.util.\*;

class Shape

{

int area(int l,int b)

{

return(l\*b);

}

int area(int l,int b,int h)

{

return(l\*b\*h);

}

double area(int radius)

{

return(3.14\*radius\*radius);

}

public static void main(String args[])throws Exception

{

Shape rect=new Shape();

Shape box=new Shape();

Shape circle=new Shape();

DataInputStream ds=new DataInputStream(System.in);

System.out.println("Enter Length and Breadth:");

int l=Integer.parseInt(ds.readLine());

int b=Integer.parseInt(ds.readLine());

System.out.println("Area of rectangle:"+rect.area(l,b));

System.out.println("Area of box:"+box.area(10,20,30));

System.out.println("Area of Circle with Radius 10 m:"+circle.area(10));

}

**}**

**/\*OUTPUT:**

**D:\VIT EDUCATION\POPL>javac Shape.java**

**Note: Shape.java uses or overrides a deprecated API.**

**Note: Recompile with -Xlint:deprecation for details.**

**D:\VIT EDUCATION\POPL>java Shape**

**Enter Length and Breadth:**

**120**

**28**

**Area of rectangle:3360**

**Area of box:6000**

**Area of Circle with Radius 10 m: 314.0**

**\*/**