**4) Write a program in Java that creates an abstract class called Shape. Create subclasses that calculate and displays area of rectangle and triangle..**

**Program :-**

abstract class Shape

{

int I,b,h,ba;

abstract int area();

}

class rectangle extends Shape

{

rectangle(int x,int y)

{

I=x;

b=y;

}

int area()

{

return 1\*b;

}

}

class triangle extends Shape

{

triangle (int a,int b)

{

ba=a;

h=b;

}

int area()

{

return(ba\*h)/2;

}

}

class Shape\_demo

{public static void main(String args[])

{

Shape s1;

rectangle R=new rectangle(10,20);

triangle T=new triangle(20,40);

int z;

s1=R;

z=s1.area();

System.out.println("\n\n Area of rectangle: "+z);

s1=T;

z=s1.area();

System.out.println("\n\n Area of Triangle: "+z);

}

}

**Output :-**

Area of rectangle: 200

Area of Triangle: 400

Press any key to continue . . .