**Practical: 18 Create a base class called 'SHAPE' having**

**- Two data members of type double**

**- Member function *get-data* ( ) to initialize base class data members- pure virtual member function *display-area*( ) to compute and display the area of the geometrical object.**

**Derive two specific classes 'TRIANGLE' and 'RECTANGLE' from the base class. Using these three classes design a program that will accept dimension of a triangle / rectangle interactively and display the area.**

**#include<iostream>**

**using namespace std;**

**class shape**

**{**

**protected:**

**double x, y;**

**public:**

**void getdata(double a, double b)**

**{ x=a;**

**y=b;**

**}**

**virtual void display\_area()=0;**

**};**

**class triangle:public shape**

**{ double triangle\_area; void display\_area()**

**{ triangle\_area=(1\*x\*y)/2;**

**cout<<"area of triangle is:"<<triangle\_area<<endl;**

**}**

**};**

**class rectangle:public shape**

**{ double rectangle\_area; void display\_area()**

**{ rectangle\_area=x\*y;**

**cout<<"area of rectangle is:"<<rectangle\_area;**

**}**

**};**

**int main()**

**{ shape \*p; triangle t; rectangle r; p=&t;**

**p->getdata(10,30);**

**p->display\_area();**

**p=&r;**

**p->getdata(20,30);**

**p->display\_area();**

**return 0;**

**}**

**Output 18**

