**Experiment 6**

C++ program to implement function overloading

**ALGORITHM**

Step 1: Start

Step 2: create the class of allarea type with private variable ar1, ar2, ar3.

Step 3: Declare and define functions “area” for calculating area of circle, rectangular and triangle.

Step 4: declare and define display function.

Step 5: declare the variables and call the allarea of type of class.

Step 6: take the input from user.

Step 7: stop

**Program**

//exp6

#include<iostream>

using namespace std;

const float pi=3.14;

class allarea{ //declare the class of type allarea

private:float ar1,ar2,ar3; //declare variables to find the area

public:

float area(float n,float b,float h) //function to calculate area triangle

{

ar1=n\*b\*h;

}

float area(float r)//area of circle

{

ar2=pi\*r\*r;

}

float area(float lr,float br)//area of rectangle

{

ar3=lr\*br;

}

void display() //display the output

{

cout<<"\nArea of triangle:"<<ar1<<endl;

cout<<"\nArea of circle:"<<ar2<<endl;

cout<<"\nArea of rectangle:"<<ar3<<endl;

}

};

int main()

{

float b,h,r,lr,br;

allarea a; //define the class and compute area..

cout<<"\nenter the base & height of triangle:\n";

cin>>b>>h;

a.area(0.5,b,h);

cout<<"\nenter radius of circle:\n";

cin>>r;

a.area(r);

cout<<"\nenter the length and breath of rectangle:\n";

cin>>lr>>br;

a.area(lr,br);

a.display();

return 0;

}

**Sample input output :-**

