**LAB REPORT NO 5**



**Spring 2020**

**CSE102L Computer Programming Lab**

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“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Submitted to:

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**C++ Code:-**

#include<iostream>

using namespace std;

class point {

protected:

int x,y;

public:

point();

point(int a,int n);

void set\_point(int x,int y);

void show();

};

point::point(){

x=0;

y=0;

}

point::point(int a,int n)

{

this->x=a;

this->y=n;

}

void point::set\_point(int x,int y){

this->x=x;

this->y=y;

}

void point::show(){

cout<<"point is ("<<x<<","<<y<<")"<<endl;

}

class circle:point{

protected:

int radius;

public:

circle(int x,point p);

circle(float x,float y,float p);

float get\_circum();

};

circle::circle(int x,point p)

{

this->radius=x;

}

circle::circle(float r,float x,float y):point(x,y)

{

this->radius=x;

}

float circle::get\_circum(){

return(2\*3.14\*radius);

}

class cylinder:point{

protected:

int radius;

float height;

public:

cylinder();

cylinder(int r,float h);

float get\_area();

float get\_vol();

};

cylinder::cylinder(int r,float x):point(x,y)

{

this->radius=r;

this->height=x;

}

float cylinder::get\_area(){

float add;

add=radius+height;

return (2\*add\*3.14\*radius);

}

float cylinder::get\_vol(){

return (2\*3.14\*radius\*radius\*height);

}

main(){

point p(2,4);

p.show();

circle c(2,5.6,3);

cylinder c1(4,6.6);

cout<<"\n\ncircumferences of the circle "<<c.get\_circum();

cout<<"\n\narea of the cylinder "<<c1.get\_area();

cout<<"\n\nvolume of the cylinder "<<c1.get\_vol();

return 0;

}