

## Computer Programming (E) - Quiz 4

Roll Number: \_\_\_\_\_

Total Time: 10 Minutes

Total Marks: 10

**Important Note: Negative marks will be awarded for any suspicious activity found during/in the quiz.**

**Question:** Write the output/Errors for the program given below

```
#include<iostream>
using namespace std;

class Rectangle{
private:
    int* lenght;
    int* width;
public:
    Rectangle(int l = 0, int w = 0);
    Rectangle(const Rectangle&);
    ~Rectangle();
    void Print();
    const Rectangle& operator=(const
Rectangle&);

    Rectangle UpdateSize()
    {
        cout << "-----"
<< endl;
        Rectangle temp;
        *temp.lenght = *lenght +
10;
        *temp.width = *width + 10;
        cout << "#####"
<< endl;
        return temp;
    }
};
Rectangle::Rectangle(int l, int w)
{
    cout << "Constructor Called for "
<< l << " X " << w << ".\n\n";
    lenght = new int(l);
    width = new int(w);
}
Rectangle::Rectangle(const Rectangle&
rhs)
{
    cout << "Copy Constructor Called
to create a copy of Rectangle " <<
*rhs.lenght << " X " << *rhs.width <<
endl;
    lenght = new int(*rhs.lenght);
    width = new int(*rhs.width);
}

Rectangle::~Rectangle()
{
    cout << "Destructor Called for
rectangle " << *lenght << " X " <<
*width << "\n\n";
    delete lenght;
    delete width;
}
const Rectangle&
Rectangle::operator=(const Rectangle&
rhs)
{
    cout << "Overloaded Assignment
Operator Called for LHS " <<
*rhs.lenght << " X " << *rhs.width <<
endl;

    if (&rhs != this)
    {
        *lenght = *rhs.lenght;
        *width = *rhs.width;
    }
    return *this;
}

void Rectangle::Print()
{
    cout << *lenght << " X " <<
*width << endl << endl;
}

void main()
{
    Rectangle r1(2, 3);
    Rectangle r2 = r1.UpdateSize();
    cout << "r2:\t";
    r2.Print();
}
```

**Output/Errors:**

--