

BCA1317A02 Java Programming Lab

Lab #5 (Due date: 30/09/2020 11:59 PM)

Topics: Classes & Objects, Methods and Constructors

1. What's wrong with the following program?

```
public class SomethingIsWrong {  
    public static void main(String[] args) {  
        Rectangle myRect; //something missing here  
        myRect.width = 40;  
        myRect.height = 50;  
        System.out.println("myRect's area is " + myRect.area());  
    }  
}
```

2. Fix the program called SomethingIsWrong shown in Question 1 by adding appropriate fields and methods to make it function.
3. Complete the program called SomethingIsWrong shown in Question 1 by adding appropriate fields and methods to make it function.
4. Given the following class, called [NumberHolder](#), write some code that creates an instance of the class, initializes its two member variables, and then displays the value of each member variable.

```
public class NumberHolder {  
    public int anInt;  
    public float aFloat;  
}
```

1. Create a Student class, take rollNo and name as fields of this class, and print the values of these fields in main class without assigning values to the fields.
2. Assign the value of id as 'your rollNo' and that of name as "your name" by creating an object of the class Student.
3. Assign the value of id as 'your rollNo' and that of name as "your name" by creating a method (not the constructor) of the class Student.
4. Assign and print the roll number, and name of two students respectively by creating two objects of class 'Student'.
5. Assign and print the roll number, and name of five students respectively by creating five objects of class 'Student'.
6. Add getter and setter methods in the previous program for rollNo and name.
7. Add an empty default constructor in the previous program.
8. Add a parameterised constructor in the previous program and initialize the values of rollNo and name.

9. Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' without any parameter in its constructor.
10. Create a class Rectangle and calculate the area of the rectangle of 3 rectangles.
11. In the previous program, check that an object is the instance of the class Rectangle or not.
12. In the previous program, create the object with var.
13. In the previous program, create an anonymous object.
14. Write a program that would print the information (name, year of joining, salary, address) of three employees by creating a class named 'Employee'. The output should be as follows:

| Name | Year of joining | Address |
|-------------|------------------------|------------------|
| Robert | 1994 | 64C- WallsStreat |
| Sam | 2000 | 68D- WallsStreat |
| John | 1999 | 26B- WallsStreat |

[Hint: use System.out.printf() for formatted output]
