

KING SAUD UNIVERSITY
COLLEGE OF COMPUTER AND INFORMATION SCIENCES
INFORMATION TECHNOLOGY DEPARTMENT

**CSC111:Introduction to
Programming -1**

**Tutorial week 16, more in
object**

1st Semester 1435-1436

Assignment Policy:

1. **Late** assignments will **NOT** be accepted.
 2. Students are encouraged to collaborate and work into **groups** of two.
 3. **Cheating is forbidden** in this course, and will be considered a **zero** mark.
 4. Your submitted work has to be **neat** and **clean**.
 5. Please clearly write your **name**, **section number**, and **student number**.
- Substantial departures from the above guidelines will NOT be graded.

Q1 . What is the output of the following Java program? 2 marks

```
public class myClass {

    private int num;
    private String str;
    private static int id;

    public myClass(int x, String s){
        num=x;
        str=s;
    }

    public void setStr(String st){
        str=st;
    }

    public static void setId(int i){
        id=i;
    }

    public void print(){
        System.out.println(num+"-"+str+"-"+id);}}}
```

```
public class testmyClass {

    public static void main(String[] args) {

        myClass ob1= new myClass(5,"hi");

        ob1.setId(12);

        myClass ob2= new myClass(6,"bye");

        ob2.print();

        ob2.setId(100);
        ob1.print();

        ob1=ob2;

        ob2.setStr("Hello");
        myClass.setId(25);
        ob1.print();

    }

}
```

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Q2. Find Error in the following code segments then rewrite it to produce the output (4 marks)

```
public class AA {
    private int x;
    public double y;
    //constructor with no parameter
    public AA(){
        x=0;
        y=0;
    }
    //constructor with two parameter
    public void AA(int x1, double y1 ){
        x=x1;
        y=y1;
    }
    //constructor with one parameter
    public AA(int x1){
        x=x1;
        y=x*1.0;
    }
    // set method
    //Postcondition: x = x1, y=y1
    public void set( int x1, double y1 ){
        x1=x;
        y1=y;
    }
    public void print(){
        System.out.println(x+"-"+y);}}
}
```

```
public class testAA {

    public static void main(String[] args) {
        AA a1, a2;
        class AA a3,a4,a5;
        a1=new AA ();
        a1.print();
        AA.y=10; //1

        a5=new AA(3, 5.5 ); //2
        a2=new AA (2.5); //3
        a3= new AA (2*10);
        a3.print ();
        a4.print();

    }
}
```

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Q3. Consider the following definition of the class MyClass: 4 marks

1. Complete the method definition 0.5

<pre> class MyClass{ private int x; //count the number of objects private static int count =0; //default constructor //Postcondition: x = 0 public MyClass() { } //constructor with a parameter //Postcondition: x = a public MyClass(int a) { } } </pre>	<pre> //Postcondition: x = a public void setX(int a) { } public void printX() { } public static void printCount() { } //Method to increment count //Postcondition: count++ public void incrementCount() { } } </pre>
--	--

2. Write a Java statement that declares myObject1 to be a MyClass object and initializes its instance variable x to 5. 0.25

3. Write a Java statement that declares myObject2 to be a MyClass object and initializes its instance variable x to 7. 0.25

4. Write Java statements the declare **objectList** an array of 3 objects of MyClass and initialize the instance variable x with 0. 0.5

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5. Which of the following statements are valid? (Assume that myObject1 and myObject2 are as declared in 2 and 3 --> 1)

myObject1.printCount();		
myObject1.printX();		
MyClass.printCount();		
MyClass.printX();		
MyClass.count++;		
myObject1.x;		
objectList.printX();		

6. What is the output (Assume that myObject1 and myObject2 and objectList are as declared in 2 ,3 and 4).--> 1

```

myObject1.printX();
myObject1.printCount();
myObject2.printCount();
MyClass. printCount();
myObject2.printX();
myObject1.setX(14);
myObject1.incrementCount();
myObject1.printX();
myObject1.printCount();
myObject2.printCount();
int x=10;
for (int i=0;i<3;i++)
    objectList[i].setX(++x*2);

objectList[2].printX();

```

Output: