

DANIELLEAGUE

Level 1 Exam (70 points)
(Copy)

1. Write a line of code that makes a Hamburger given the code below: (3 points)

```
public Hamburger (double poundsOfBeef, boolean withCheese) {  
    // some code  
}
```

```
    public Hamburger (double poundsOfBeef, boolean withCheese) {  
  
        Hamburger hamburger = new Hamburger( '17' , true)  
  
    }
```

2. Write a constructor for a Duck object that has a name and an age. (6 points)

```
Public Duck(string name, int age);
```

3. Write code to create and initialize 4 variables: one for each of the following values: (4 points)

The number of toes you have
The name of a favorite sports team
An instance of `java.util.Random`
A `JFrame`

```
JFrame frame = new JFrame();  
  
java.util.Random random = new java.util.Random();  
  
FavoriteTeam team = FavoriteTeam();  
  
numeroftoes 17 = numeroftoes();
```

4. Which of these are valid `JComponents`: (4 points)

`JFrame`
`JButton`
`JMouseListener`
`JTextButton`
`JLabel`
`JOptionPane`
`JPane`
`JPanel`
`Frame`

`JPanel`
`JLabel`
`JFrame`
`JButton`

5. List all the JComponents used to create the application shown here. (6 points)

JTextField
JFrame
JPanel
JButton
JButton
JLabel



6. Write 2 lines of code that will add listeners to these two Components: (6 points)

```
JButton myButton = new JButton();
```

```
JFrame myFrame = new JFrame();
```

```
myButton.addmouselistener
```

```
myFrame.addactionlistener
```

7. What method do you use to organize the layout of components in a JFrame? (3 points)

```
.setSize(int length, int height);
```

8. `int checkStock(String productName, int productNumber) { //code here }`

a) What is the return type of this method? (3 points)

b) What parameters does it take? (3 points)

c) What code would you need to put between the mustaches to get it to compile? (4 points)

a) int

b) productName and productNumber

c) return int checkStock

9. Write a method that quadruples a number (multiplies it by 4) and returns the result. (6 points)

```
int num = JOptionPane.showInputDialog(null, "Choose a number to be multiplied by four");
```

```
set num = num + num + num + num;
```

```
JOptionPane.showMessageDialog(null, "num");
```

10. What is the problem with this code (2 points) and how would you fix it (4 points)?

```
public class RedRedRed {  
  
    public static void main (String[] args) {  
        int counter = 0;  
    }  
  
    public void incrementCounter() {  
        counter++;  
    }  
}
```

The issue with the code is both return types are void.

To fix the code is below

```
public class RedRedRed {  
  
    public static int main (String[] args) {  
        int counter = 0;  
    }  
  
    public int incrementCounter() {  
        counter++;  
    }  
}
```

11. Write code to make the Dog bark given the code below. (6 points)

```
public class Dog {  
    String name;  
  
    Dog (String name) {  
        this.name = name;  
    }  
  
    void bark() {  
        System.out.println ("woof woof");  
    }  
}
```

```
public class Dog {  
    String name;  
  
    Dog (String name) {  
        this.name = name;  
    }  
    public bark() {  
  
        System.out.println ("woof woof");  
    }  
}
```

12. Write code to use the EmailSender class below to send an email and print a warning if the email did not send correctly. (10 points)

```
public class EmailSender {  
  
    /* returns true if email was sent successfully, or false if it failed to send. */  
    boolean send (String greeting) { //code here }  
    void setEmailAddress (String email) { //code here }  
}  
  
    boolean send (String greeting) {  
  
        if (send=true){  
            JOptionPane.showmesagedialouge(null," Your email was succesful");  
        }  
        if (send=false){  
            JOptionPane.showmesagedialouge(null," Your email was unsuccesful");  
        }  
        void setEmailAddress (String email) {  
  
            String e = JOptionPane.showmesagedialouge(null,"Choose your email");  
  
            setEmailAddress= e;  
  
        }  
    }  
}
```