

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 h = new Hamburger();  
    this.poundsOfBeef = new poundsOfBeef();  
    this.withCheese = new withCheese();  
    h.add(poundsOfBeef);  
    h.add(withCheese);  
}
```

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

```
class Duck(){  
    Duck duck = new Duck();  
    this.duck = new Duck();  
    this.setAge = new Age();  
    duck.setName("Bob");  
    duck.setAge(4);  
}
```

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

```
int numOfToes();  
int favSportTeam();  
java.util.Random r = new java.util.Random();  
JFrame frame = new JFrame();  
  
this.numOfToes = new numOfToes();  
this.favSportTeam = new favSportTeam();  
this.r = new java.util.Random();  
this.frame = new JFrame();
```

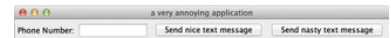
4. Which of these are valid JComponents: (4 points)

JFrame
JButton
JMouseListener
JTextButton
JLabel
JOptionPane
JPane
JPanel
Frame

JFrame
JButton
JLabel
JPanel

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

JFrame
JPanel
JTextField
JLabel
JButton



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.addKeyListener();  
myFrame.addActionListener();
```

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

A setup() method.

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)The return type of this method is checkStock.  
b)productName, productNumber  
c)int checkStock(String productName, int productNumber){  
    checkStock check = new checkStock();  
    check.productName();  
    check.productNumber();  
    return checkStock;  
}
```

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

```
double getAverage(int num1){  
    double.getAverage(int num1*num1*num1*num1);  
    return getAverage;  
}
```

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++;  
    }  
}
```

Public void incrementCounter() shouldn't be a void because a void doesn't return anything and you should call incrementCounter() to work the counter.

```
public class RedRedRed{  
  
    public static void main(String[] args){  
        int counter = 0;  
        incrementCounter();  
    }  
  
    String 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;
    public static void main(String[] args){
        name.bark();
    }
    Dog (String name) {
        this.name = name;
        name.setName("Doggo");
    }
    void 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 }

}

public class EmailSender{
    boolean send(String greeting){
        if(send==true){
            send("Hello my friend.");
        }
        else{
            System.out.println("There is no message to send");
        }
    }
    void setEmailAdress(String email){
        if(setEmailAddress == true){
            System.out.println("Email was successfully sent. ");
            return send();
        }
        else{
            System.out.println("Failed to send.");
        }
    }
}
```