

Level 5 Practice Exam

Name: _____

GitHub username: _____



1. Write a segment of Java code that takes a message from the user and appends that message to a file that already exists.
2. What does the `readLine()` method in Java's `BufferedReader` class return when it has reached the end of the file?
3. Create a Java Thread that makes a robot draw a square and start the thread.
4. Create an object of the `FileReader` class that will open a file named "dictionary.txt"

5. Use the following Stack to create a Stream object.

```
Stack<Integer> nums = new Stack<Integer>();
```

6. Create a Stream object out of the following array and sort it.

```
double[] list = new double[1000];  
// numbers are added to list here
```

7. Add an ActionListener to the following button using a lambda. Make it so the button exits the program when clicked.

8. Create an example of a functional interface.

9. What is the value of zed after the following code executes?

```
int zed = 4 << 2;
```

10. Convert the following binary numbers to decimal:

- a) $101 = \underline{\hspace{2cm}}$
- b) $1001 = \underline{\hspace{2cm}}$
- c) $1011101 = \underline{\hspace{2cm}}$
- d) $110110 = \underline{\hspace{2cm}}$

11. Convert the following decimal numbers to binary:

- a) $4 = \underline{\hspace{2cm}}$
- b) $15 = \underline{\hspace{2cm}}$
- c) $100 = \underline{\hspace{2cm}}$
- d) $132 = \underline{\hspace{2cm}}$

12. Answer the following:

- a) $2 \mid 3 = \underline{\hspace{2cm}}$
- b) $3 \& 7 = \underline{\hspace{2cm}}$
- c) $6 \mid 5 = \underline{\hspace{2cm}}$
- d) $9 \& 9 = \underline{\hspace{2cm}}$
- e) $13 \wedge 10 = \underline{\hspace{2cm}}$

13. Create a ServerSocket object that will open at port 8080.

14. Consider the following interface and method.

```
interface Module {  
    void modulate(int amt, float val);  
}  
  
public void organize(Module m){  
    //code  
}
```

Call the organize method using a lambda to define the Module parameter.

15. Use the forEach method in the following Stream object to print the square root of each double in the stream.

```
Stream<Double> dubStream = //initialized here;
```