

Level 5 Practice Exam

Name: _____

GitHub username: _____



1. Create an object of the `FileWriter` class that will append to a file that already exists.
2. Create and initialize an object of the `BufferedReader` class.
3. Create a Java Thread that prints the current day of the week 1000 times and start the thread.
4. When using an object of either the `FileReader`, `BufferedReader`, and `FileWriter` classes; what method should be called at the end of all file operations?

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

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

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

```
String[] list = new String[1000];  
// strings are added to list here
```

7. Add an ActionListener to the following button using a lambda. Make it so the button Prints a message in a pop-up window.

```
JButton button = new JButton();
```

8. Add code to the interface to make it a functional interface.

```
public interface Closable{
```

```
}
```

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

```
int zed = 1 << 4;
```

10. Convert the following binary numbers to decimal:

a) $10 = \underline{\hspace{2cm}}$

b) $10101 = \underline{\hspace{2cm}}$

c) $1011 = \underline{\hspace{2cm}}$

d) $110111 = \underline{\hspace{2cm}}$

11. Convert the following decimal numbers to binary:

a) $6 = \underline{\hspace{2cm}}$

b) $17 = \underline{\hspace{2cm}}$

c) $90 = \underline{\hspace{2cm}}$

d) $122 = \underline{\hspace{2cm}}$

12. Answer the following:

a) $1 \mid 3 = \underline{\hspace{2cm}}$

b) $3 \& 3 = \underline{\hspace{2cm}}$

c) $5 \mid 4 = \underline{\hspace{2cm}}$

d) $3 \& 4 = \underline{\hspace{2cm}}$

e) $10 \wedge 16 = \underline{\hspace{2cm}}$

13. How many bits are in an IP address?

14. Consider the following interface and method.

```
interface Roller {  
    void roll(float angle);  
}  
  
public void rotate(Roller r){  
    //code  
}
```

Call the rotate method using a lambda to define the Roller parameter.

15. Use the forEach method in the following Stream object to print the first character of each string in the stream.

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