Quiz

1.What is the purpose of filter method of stream in java 8?

Iterate each element of the stream.

Map each element to its corresponding result.

Correct----Eliminate elements based on a criteria

Reduce the size of the stream

filter() method is an intermediate operation of the *Stream* interface that allows us to filter elements of a stream that match a given *Predicate:*

2. Which of the following can be used to create a lambda that accepts an integer and returns nothing?

Predicate

Correct---Consumer

Supplier

Function

Consumer interface represents a function which takes in one argument and produces a result. However these kind of functions don't return any value.

3. Functional Interfaces can have more than one default methods. True or False?

Correct---True

False

Functional Interfaces have a single abstract method, but can have multiple default methods.

4. "this" keyword can be used in a lambda expression. True or False ?

Correct---True

False

5. Which of the following is true for the arguments in lambda expressions?

Type **of** the arguments are mandatory

Correct---Type **of** the arguments can be omitted

At least one argument needs to have the datatype specified

All the above

For example:

```
FunctionTest functionTest = (a,b) -> System.out.println(a + b);
```

No need to specify the parameter types, they will need to match with the signature of the abstract method in FunctionTest interface.

6. What collections are synchronized?

ArrayList

LinkedList

HashSet

Correct---Vector

7. What is the priority of the thread in the following Java Program?

```
1.  class multithreaded_programing
2.  {
3.      public static void main(String args[])
4.      {
5.          Thread t = Thread.currentThread();
6.          System.out.println(t);
7.      }
8.  }
```

10
Correct---5
1
0

Default priority of threads when created is 5.

8. Which of those Collections allow duplicate elements?
Set
Correct---List
All
None of the above

9.Which two answers are valid constructors for Thread?

1. Thread(Runnable r, String name)
2. Thread()
3. Thread(int priority)
4. Thread(Runnable r, ThreadGroup g)
5. Thread(Runnable r, int priority)

1 and 3
1 and 4
Correct---1 and 2
2 and 5

10. Which three are methods of the Object class?

1. notify();
2. notifyAll();
3. isInterrupted();
4. synchronized();
5. interrupt();
6. wait(long msecs);
7. sleep(long msecs);
8. yield();

1, 2, 4
2, 4, 5
Correct---1, 2, 6
2, 3, 4

11. What will be the output of the following code?

```
public class A {
    public static void main(String[] args)
    {
        if (true)
            break;
    }
}
```

Nothing
Correct---Error
break keyword can only be used in loops or switches

12. What will be the output for the following code?

```
public class A {
    public static void main(String[] args)
    {
        System.out.println('j' + 'a' + 'v' + 'a');
    }
}
```

java
j a v a
Java
Correct---Something else

Character literals will not be concatenated, but will make the sum of the ASCII representation for each character.

13. What will be the output for the following code?

```
Integer num1 = 100;
Integer num2 = 100;
Integer num3 = 500;
Integer num4 = 500;

if(num1==num2){
    System.out.println("num1 == num2");
}
else{
    System.out.println("num1 != num2");
}
if(num3 == num4){
    System.out.println("num3 == num4");
}
else{
    System.out.println("num3 != num4");
}
```

num1 == num2 and num3 == num4
Correct---num1 == num2 and num3 != num4

num1 != num2 and num3 == num4
num1 != num2 and num3 != num4

Java caches integer objects that fall into -128 to 127 range.
So when comparing integers between these ranges , they will be compared by value, not by reference.

14. What will be the output for the following code?

```
public class Demo{
    public static void main(String[] arr){

    }
    public static void main(String arr){

    }
}
```

Correct---Nothing
Error
Overloading concept is used.

15. What will be the output of the following Java code snippet?

```
1. Object[] names = new String[3];
2. names[0] = new Integer(0);
```

ArrayIndexOutOfBoundsException
Correct---ArrayStoreException
Compilation Error
Code runs successfully
Even if is an array of Objects, you cannot assign elements of different types. Only if the two elements are subclasses of the same “parent” class.

16. How to sort an array?

Array.sort()

Correct---Arrays.sort()

Collection.sort()

System.sort()

17. What will the following program print?

Object impl

Correct---String impl

18. What is the result of the following code fragment?

```
public static void main() {
    int odd = 1;
    if (odd) {
        System.out.println("odd");
    } else {
        System.out.println("even");
    }
}
```

odd

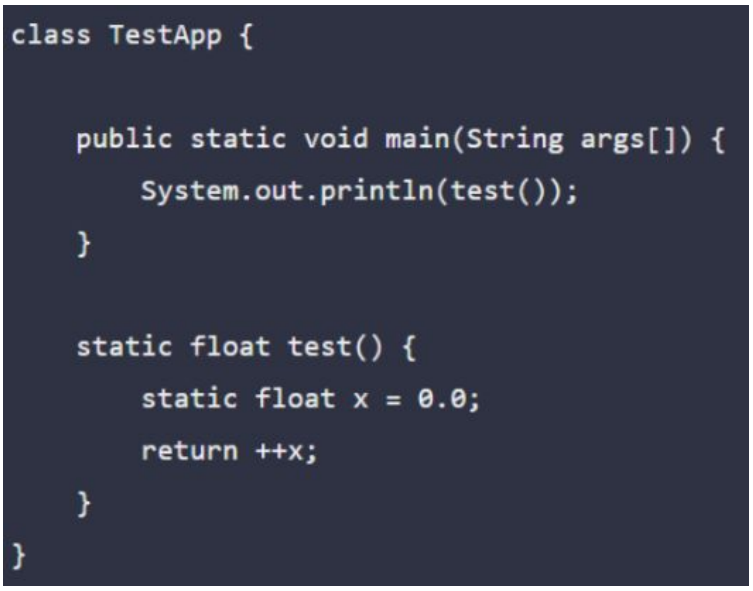
even

Runtime Exception

Correct---Compile Error

If must contain a true/false value, or a condition that returns a boolean value.

19. What is the outcome of the following Java code?



```
class TestApp {

    public static void main(String args[]) {
        System.out.println(test());
    }

    static float test() {
        static float x = 0.0;
        return ++x;
    }
}
```

0.0
1
1.0
Correct---Compile time error
Cannot use static for local variables in methods.

20. Can interfaces can be instantiated?
True
Correct---False

21. A *.class* file contains bytecode?
Correct---True
False

22. Objects of a super class can always be assigned to a subclass reference?
True
Correct---False
Can only assign a subclass object to a super class (parent)object.

23. The == operator can be used to compare two *String* objects. The result is always true if the two strings are identical.
True

Correct--False
To compare values of string objects, must use .equal()

24. What will be output of this following java program?

```
1  package com.topjavatutorial.java8examples;
2
3  public class ExampleLambdaExpression {
4
5      public static void main(String[] args) {
6
7          String name = "TopJavaTutorial";
8          Runnable r1 = () -> System.out.print(name);
9
10         String name1 = "";
11         name1 = name.toUpperCase();
12         Runnable r2 = () -> System.out.print(name1);
13
14         r1.run();
15
16     }
17
18 }
```

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Others
Correct---Compile error
Variables used in lambda expression should be declared final, or should be instantiated one time to be effectively final.

25. Functional interfaces in Java can be annotated with which of the following annotations?
@Function
@FunctionInterface
@Functional
Correct---@FunctionalInterface

26. What are the two types of Streams offered by java 8?
Correct---sequential and parallel
sequential and random
parallel and random

random and synchronized

27. In Java 8, interface methods can be:

default

abstract

Correct---all

none of the above

28. What will the following java code display?

```
class Test extends Exception { }

class Main {
    public static void main(String args[]) {
        try {
            throw new Test();
        }
        catch(Test t) {
            System.out.println("Got the Test Exception");
        }
        finally {
            System.out.println("Inside finally block ");
        }
    }
}
```

Correct---Got the Test Exception

Inside finally block

Got the Test Exception

Got the Test Exception

Compiler Error

29 . Which of these is a super class of all errors and exceptions in the Java language?

RunTimeException

Correct---Throwable

Catchable

None of the above

30. What will the following java code display?

```
public static void main(String[] args)
{
    try
    {
        int a[]= {1, 2, 3, 4};
        for (int i = 1; i <= 4; i++)
        {
            System.out.println ("a[" + i + "]=" + a[i] + "n");
        }
    }

    catch (Exception e)
    {
        System.out.println ("error = " + e);
    }

    catch (ArrayIndexOutOfBoundsException e)
    {
        System.out.println ("ArrayIndexOutOfBoundsException");
    }
}
```

Correct---Compile Error

Runtime Error

ArrayIndexOutOfBoundsException

Error code is printed from first catch

The order of Exceptions , should be from the most specific to the most generic.

31. What will the following java code display?

```
public static void main(String[] args)
{
    HashSet<String> hashSet = new HashSet<>();
    hashSet.add("Geeks");
    hashSet.add("for");
    hashSet.add("Geeks");
    hashSet.add("GeeksforGeeks");

    System.out.println(hashSet);

}
```

[Geeks, for, Geeks, GeeksForGeeks]

Correct---[Geeks, for, GeeksForGeeks]
[GeeksForGeeks, for, Geeks, Geeks]
Memory address for HashSet
Set does not allow duplicated

32. Which of these is static variable defined in Collections?
EMPTY_SET
EMPTY_LIST
EMPTY_MAP
Correct---All of the mentioned

33. Which of these is Basic Collection interface that all other interfaces inherit?
Collections
Correct---Collection
Collector
List

34. Which of these classes is not part of Java collection framework?
Correct---Map
Array
Stack
Queue
The answer is Map, because is does not implement the Collection interface.

35. Which of the following collection is not of Iterable type?
ArrayList
Vector
TreeSet
Correct---HashMap
Same answer from previous question applies.