1. What's the difference between final, finally? What is finalize()? 2. What's the difference between throw and throws?

final is the keyword and access modifier which is used to apply restrictions on a class, method or variable.Once declared, final variable becomes constant and cannot be modified. Final method cannot be overridden by subclass. final class cannot be inherited.

finally is the block in Java Exception Handling to execute the important code whether the exception occurs or not.finally block runs the important code even if exception occurs or not.

finalize is the method in Java which is used to perform clean up processing just before an object is garbage collected.

The **throw** keyword is used inside a function. It is used when it is required to throw an Exception logically.The throw keyword is used to throw an exception explicitly. It can throw only one exception at a time.

The **throws** keyword is used in the function signature. It is used when the function has some statements that can lead to exceptions. The throws keyword can be used to declare multiple exceptions, separated by a comma. Whichever exception occurs, if matched with the declared ones, is thrown automatically then.

3. What are the two types of exceptions?

Checked exceptions are also known as compile-time exceptions as these exceptions are checked by the compiler during the compilation process to confirm whether the exception is handled by the programmer or not.

The unchecked exceptions are those exceptions that occur during the execution of the program. Hence they are also referred to as Runtime exceptions. These exceptions are generally ignored during the compilation process. They are not checked while compiling the program. For example, programming bugs like logical errors, and using incorrect APIs.

4. What is error in java?

In Java, an error is a subclass of Throwable that tells that something serious problem is existing and a reasonable Java application should not try to catch that error.

5. Exception is object, true or false?

True

In Java, exceptions are objects. When you throw an exception, you throw an object. You can't throw just any object as an exception, however, only objects whose class descends from Throwable .

6. Can a finally block exist with a try block but without a catch?

Yes, It is possible to have a finally block without a catch block.Finally block will always execute even if there is an exception occurred in a try block

7. From java 1.7, give an example of the try-resource feature.

8. What will happen to the Exception object after exception handling?

The Exception object will be garbage collected in the next garbage collection.

9. Can we use String as a condition in switch(str){} clause?

Yes, we can use a switch statement with Strings in Java

10. What's the difference between ArrayList, LinkedList and vector?

ArrayList in java, uses dynamic arrays to store its elements and maintains insertion order. ArrayList can store duplicate elements. It is a non synchronized collection type.ArrayList provides the mechanism of random access because of it's index based nature.

LinkedList in java, uses linked list data structure as it's internal implementation to store elements. It can store duplicate elements.LinkedList is also not synchronized. LinkedList does not provides any facility like random access. Its performance is better than Arraylist on add and remove operations, but worse on get and set operations.

Vector class in java, implements a growable or dynamic array of objects. Similar to an array, Vector contains components which can be accessed using an integer index. It is synchronized.It increases its size by doubling the array size. Vector is slow as compared ArrayList because it is synchronized

11. What's the difference between hashTable and hashMap?

Hashtable is synchronized, whereas HashMap is not. This makes HashMap better for non-threaded applications

Hashtable does not allow null keys or values. HashMap allows one null key and any number of null values.

HashMap does not guarantee that the order of the map will remain constant over time

12. What is static import?

static import allows to access the static members of a class without class qualifications. To access the static methods you need to call the using class name: Math.sqrt(169);

But, using static import you can access the static methods directly. Like sqrt(169);

13. What is static block?

Static block is a set of instructions that is run only once when a class is loaded into memory. A static block is also called a static initialization block. This is because it is an option for initializing or setting up the class at run-time. It can be thought of as a "class constructor".

14. Explain the keywords:

default(java 1.8)

Default methods are those methods which have some default implementation and help in evolving the interfaces without breaking the existing code.

Break

break statement is used to break loop or switch statement. It breaks the current flow of the program at specified condition.

Continue

continue statement stops one iteration in a loop and continues to the next iteration

Synchronized

Synchronization in java is the capability to control the access of multiple threads to any shared resource

Strictfp

Strictfp ensures that you get exactly the same results from your floating point calculations on every platform.

Transient

transient is a variables modifier used in serialization. At the time of serialization, if we don't want to save value of a particular variable in a file, then we use transient keyword. When JVM comes across transient keyword, it ignores original value of the variable and save default value of that variable data type.

Volatile

Volatile keyword is used to modify the value of a variable by different threads. It is also used to make classes thread safe. It means that multiple threads can use a method and instance of the classes at the same time without any problem.

instanceOf

instanceof is a binary operator used to test if an object is of a given type. The result of the operation is either true or false. It's also known as type comparison operator because it compares the instance with type.