Q What is interface in java?

Interface is a reference type similar to class. Interface cannot be instantiated. It is mainly used to achieve abstraction. Variables in an interface are by default public, static and final. In addition to abstract methods, interface can contain default and static methods.

Q What is the difference between method overloading and method overriding?

* In method overloading binding takes place at compile time whereas in method overriding binding takes place at run time.
* In method overloading methods can have different return type, whereas in method overriding return type should not differ.

Q Is it possible to override static methods? Why?

No. In method overriding, binding is done using the object reference. Static methods belong to class and its binding takes place during compilation.

Q List down methods present in the Object class?  
  
Below are the important methods present in the Object class:

* clone(): this method is used to create a clone of the object
* equals(): this method is used to check whether objects are equal.
* hashCode(): this method returns the hash value of the object.
* toString(): this method returns the String representation of the given object.
* wait():  causes the current method to release the monitor lock and wait until another thread calls notify() or notifyAll() method.
* notify(): wakes up the single thread waiting for the monitor lock.
* notifyAll(): wakes up all the threads, waiting for monitor lock.
* finalize(): this method is invoked by garbage collector just before the object is garbage collected.

Q What is Dynamic dispatch ?

Dinamic dispatch is another word for run time polymorphism.

Q What is the difference between checked exception and unchecked exception?

Checked exceptions are the exceptions that the compiler is aware of. Checked exceptions must be handled using try-catch or throws declaration otherwise the code will not be compiled.

Unchecked exceptions are the exceptions which the compiler is not aware of. Hence the programmer has to take special care. ArrayIndexOutOfBoundExcetion, NullPointerException etc. are examples.

Q What is the difference between throw and thows?

throw keyword is used to throw an exception explicitly inside the function or the block of code. Only one exception can be thrown at a time.

throws keyword is used in the method signature to declare an exception which might be thrown by the function during the execution of the code. Any number of exceptions can be declared.

Q What is try-with resources in java?

Q What is the difference between fail-safe iterators and fail-fast iterators?

Q What is a marker interface?

An interface having no methods or variables is called a marker interface. JVM will provide the required efficiency of these interfaces. Serializable, Cloneable, Annotations etc. are examples.

Q What is Annotation in java?

Annotations are marker interfaces in java used with @ symbol and the required ability is provided by JVM.

Q What is autoboxing and unboxing in Java?  
  
Autoboxing can be defined as converting primitive data type (int, float, double, etc.) into their corresponding wrapper classes objects.  
for example: int to Integer, float to Float  
  
Unboxing is the reverse of autoboxing. It converts wrapper class objects into primitive data types.

Q  What is a transient keyword in Java?  
  
Transient keyword in Java is used to avoid Serialization.  If a variable is marked as transient then it will not be serialized.

Q What are the different ways to call Garbage Collector?

System.gc()

Runtime.getRuntime.gc()

Q Q23 How many objects will be created in the below statement?

String strObj1 = "JavaBean";

String strObj2 = "JavaBean";

Q Why strings are immutable in java?

Strings are immutable mainly because of security reasons. For example, database credentials are passed as string to get database connection. While making http requests host and port details are passes as string. Since String is immutable, its value can’t be changed, otherwise any hacker could change the referenced value to cause security issues in the application.