INTERVIEW QUESTIONS - Core Java (Day- 1)

1. **Tell me about Java as programming language?**

   Java is a high-level, object-oriented, robust, secure, high-performance, Multithreaded programming language. It is also platform-independent. James Gosling and his team at SunMicrosystems created it.

2. **List the Java programming language's features?**

- Object-oriented
- Platform-independent
- Robust
- Secure
- Multithreaded
- Distributed
- Both Compiled and Interpreted

3. **What enables Java to be "write once, run anywhere"?**

   When Java code is compiled , Java compiler converts the Java programs into the class file (Byte Code) which is the intermediate language between source code and machine code. This bytecode can be run on any machine and is not platform-specific.

4. **What exactly do you mean by Java virtual machine?**
   JVM is known as the Java Virtual Machine.The JVM provides the runtime environment in which Java bytecode can be executed. JRE is the name of its implementation. For every platform there are different JVMs (so JVM is platform dependent).

5. **What is the difference between JDK and JVM?**

   The Java Development Kit (JDK) is used for development.
   JDK contains all of the tools, executables, and binaries needed to compile, debug, and run a Java programme.
   JVM is known as the Java Virtual Machine.The JVM provides the runtime environment in which Java bytecode can be executed.

6. **Why isn't Java a pure object-oriented language?**

   Because Java supports primitive data types such as byte, boolean, char, short, int, float, long, and double, it is not pure object oriented language.

7. **What exactly is a ClassLoader?**

   In Java, a classloader is a subsystem of the Java Virtual Machine that is responsible for loading class files when a programme is executed; ClassLoader is the first to load the executable file.
   Java classloaders include Bootstrap, Extension, and Application.

8. **In Java, what is a class?**
   Everything in Java is associated with classes and objects.
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   A class is defined as a blueprint for creating objects as well as defining fields and methods.

9. **What does Object mean in Java?**

The instance of a class is called an object. Every object in Java has property(fields) and behavior(method).
To create an object of a class, specify the class name, followed by the object name, and use the new keyword.

```
class Demo{
     int age;   //field
     void disp()  /// method
     {
     }
}
```

Creation of object : Demo d=new Demo();

10. What are the different types of variables in Java?

Java, there are primarily three types of variables available, they are as follows a) Static variable b) Instance variable c)Local Variable

a) Static Variables: A variable that has the static keyword in its declaration is referred to as a static variable. Local variables cannot be static variables, and memory is only allocated once for them in Heap area.

b) Instance variable: The variable declared inside the class but outside the body of the method or block or loop is called the instance variable. This variable cannot be declared as static and its value is instance-specific(Object specific) for every new object created, new memory will be allocated inside that object in heap area

c) Local variable : A local variable is a variable that is declared inside the method or loop or block body of a class. The static keyword cannot be used to declare a local variable.

11. What if we write public static void as static public void?

Since Java specifier order doesn't, the programmes' compilation and execution are both done successfully.

12. What is the local variables' default value?

The local variables are not initialized to any default value, neither primitives nor object references.

13. What are the data types in Java?

Both rest parameter and spread operator were introduced in the ES6 version of JavaScript.

14. What are primitive data types? Also provide the sizes and default values for primitive data types.

Primitive data type specifies the size and type of variable values, and it has no additional methods. The primitive data types include char, byte, short, int float, double, and boolean.

char	2 bytes	'u0000'
byte	1 byte	0
short	2 bytes	0
int	4 bytes	0
long	8 bytes	0L
float	4 bytes	0.0f
double	8 bytes	0.0d
boolean		false

15. What distinguishes the increment operators ++a and a++?

++a is a pre - increment
a++ is the post - increment.
The prefix increment is used to return the value after incrementing the present value.
In case of postfix increment, the value is returned before incrementing it.

16. What exactly is a ternary operator?

In Java, the ternary operator is used to replace the if-else expression. The ternary operator's representation or syntax is as follows:
variable= (expression) ? expression true : expression false

17. What are Java keywords?

Java has a set of reserved keywords that cannot be used as variables, methods, classes, or other identifiers.

void, if, static, switch, break, continue, new, while, extends, this, super, return……

18. What are Java's selection/conditional statements?

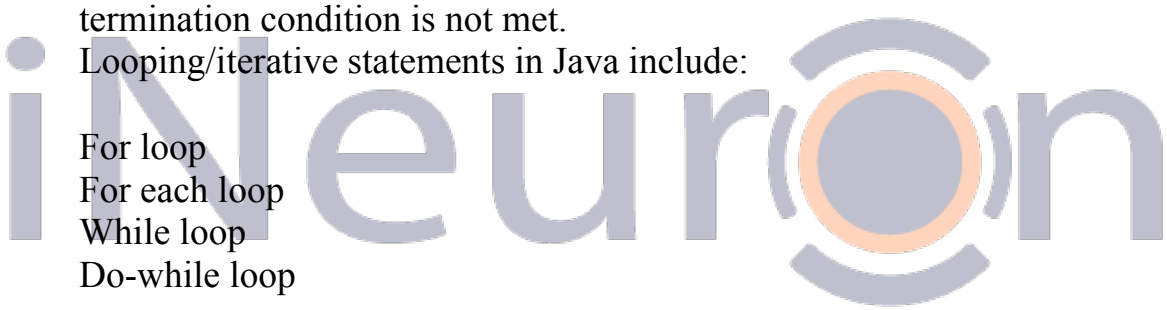
A selection/conditional statement is primarily used to direct programme control to a specific flow based on a true or false condition.

Selection/Conditional statements in Java include:
If statement
If-else statement
Switch statements

19. What are the various kinds of iterative/looping statements?

These are the statements that are repeated continuously until the termination condition is not met.
Looping/iterative statements in Java include:

For loop
For each loop
While loop
Do-while loop



20. In Java, how many different types of operators are there?

Arithmetic operators
Assignment operators
Logical operators
Relational operators
Bitwise operators
Unary operators
Ternary operators
Shift operators

To be continued …….. Day -02