Java Interview Questions - Based on Guru99 Java PDF

1. Core Java Concepts

Q1: What is Java? How is it different from other programming languages like C or C++?

Q2: What does it mean that Java is platform-independent?

Q3: Explain the steps from writing a Java program to its execution.

Q4: What is bytecode in Java?

Q5: How is Java both compiled and interpreted?

2. Java Virtual Machine (JVM)

Q6: What is JVM, and what are its main responsibilities?

Q7: Describe the architecture of the JVM. What is the role of the ClassLoader, Heap, and Method Area?

Q8: What is the Execution Engine in JVM?

Q9: What is Just-In-Time (JIT) compilation in Java? Why is it important?

3. Object-Oriented Programming (OOP)

Q10: What is data abstraction in Java?

Q11: How is encapsulation implemented in Java?

Q12: Explain inheritance with an example in Java.

Q13: What is polymorphism? How does Java achieve runtime polymorphism?

4. Java Syntax and Structure

Q14: What are primitive data types in Java?

Q15: What is the difference between Array and ArrayList?

Q16: How do you define a class in Java?

Q17: What is the use of the 'this' keyword?

5. Strings and Collections

Q18: How are strings handled in Java? Are they mutable?

Q19: What is the use of the replace() and replaceAll() methods in Java Strings?

Q20: How does a HashMap work in Java?

6. Advanced Java Concepts

Q21: What are static variables in Java?

Q22: What is the difference between stack and heap memory in Java?