

# JAVA

## Java – LTIMindtree Associate Trainee SPECIFIC QUESTIONS & ANSWERS

### ◆ PART 1

Q1. What is Java and why is it used in service companies?

Answer:

Java is an object-oriented programming language used to build scalable, secure, and platform-independent applications. Service companies use Java because it supports enterprise applications and large client systems.

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Q2. Why is Java platform independent?

Answer:

Java code is compiled into bytecode, which runs on JVM. JVM is available for different operating systems, so the same code runs everywhere.

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Q3. How does Java manage memory?

Answer:

Java uses stack memory for method calls and heap memory for objects. Garbage Collector automatically frees unused memory.

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Q4. What is JVM and what does it do?

Answer:

JVM executes Java bytecode, manages memory, and handles garbage collection.

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Q5. What does LTIMindtree expect from a Java fresher?

Answer:

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Strong fundamentals, understanding of OOP, willingness to learn, and flexibility to work on any Java-based project.

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## ◆ PART 2

### CORE JAVA INTERVIEW QUESTIONS (ANY COMPANY / ANY ROLE)

ಇವಿ EVERGREEN QUESTIONS.

ಇವಿ ರಾಕಪ್‌ಗೆ Java fundamentals weak.

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Q1. What is OOP?

Answer:

OOP is a programming approach based on objects to improve reusability and maintainability.

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Q2. What are the four OOP concepts?

Answer:

Encapsulation, Inheritance, Polymorphism, Abstraction.

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Q3. Difference between class and object?

Answer:

Class is a blueprint. Object is an instance of class.

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Q4. What is constructor?

Answer:

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Constructor initializes objects when they are created.

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Q5. What is method overloading?

Answer:

Same method name with different parameters in the same class.

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Q6. What is method overriding?

Answer:

Child class providing its own implementation of parent class method.

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Q7. What is inheritance?

Answer:

Acquiring properties of one class into another.

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Q8. What is abstraction?

Answer:

Hiding implementation details and showing only essential features.

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Q9. What is interface?

Answer:

Interface is a blueprint of a class containing abstract methods.

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Q10. What is package?

Answer:

Package is a namespace to organize related classes.

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## ◆ PART 3

BASIC – CRITICAL – PROGRAMMING (3 TYPES)

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### ◆ A. BASIC JAVA QUESTIONS (Foundation Check)

1. What is JVM, JRE, JDK? Ans:

JVM runs bytecode. JRE provides runtime. JDK provides development tools.

2. What is variable? Ans:

A named memory location to store data.

3. What are data types? Ans:

They define type and size of data.

4. What is loop? Ans:

Repeats a block of code.

5. What is array? Ans:

Stores multiple values of same data type.

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### ◆ B. CRITICAL JAVA QUESTIONS (Elimination Level)

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1. Difference between == and .equals()? Ans:  
== compares reference. .equals() compares content.

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2. Difference between Array and ArrayList? Ans:  
Array is fixed size. ArrayList is dynamic.

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3. What is garbage collection? Ans:  
Automatic removal of unused objects.

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4. What happens if constructor is not written? Ans:  
Java provides default constructor.

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5. What is static keyword? Ans:  
static belongs to class, not object.

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6. Why Java is secure? Ans:  
No pointer access and JVM security model.

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◆ JAVA. PROGRAMMING LOGIC QUESTIONS (Explain Logic – No Syntax Trap)

> Syntax perfect అవసరం లేదు  
Logic explain చేయాలి

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1. Reverse a string

Logic:  
Convert string to char array, swap characters from start and end.

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2. Find duplicate elements in array

Logic:  
Compare each element or use HashSet.

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3. Check palindrome string

Logic:  
Reverse string and compare with original.

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4. Find largest number in array

Logic:  
Use one variable and compare in loop.

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5. Count frequency of characters

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Logic:

Use array or HashMap.

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## ● JAVA – CRITICAL INTERVIEW POINTS (LECTURER CHECKLIST)

OOP clarity with examples

JVM + memory understanding

Difference questions (==, Array vs ArrayList)

Honest explanation

Willingness to learn attitude

👉 If student fails here → Java interview risk.