

# **Java Viva Questions for B.Tech 2nd Year Students (100 Questions)**

## **Unit 1: Introduction to Java (25 Questions)**

1. What is Java?
2. Who developed Java, and in which year?
3. What are the main features of Java?
4. What is the JVM?
5. What is JRE?
6. What is JDK?
7. What are the different types of Java applications?
8. What is bytecode in Java?
9. Why is Java platform-independent?
10. What is the difference between == and .equals() in Java?
11. What are primitive data types in Java?
12. What is the default value of a boolean variable?
13. What is type casting in Java?
14. What is the difference between implicit and explicit casting?
15. What is a variable and how is it declared in Java?
16. What is the difference between local, instance, and static variables?
17. What is a string in Java?
18. Is String mutable or immutable in Java?
19. What is the difference between String, StringBuilder, and StringBuffer?
20. What is an array?
21. How do you declare and initialize an array in Java?
22. What is the default value of array elements?
23. Can we change the size of an array after creation?
24. What is an enhanced for loop in Java?
25. How to find the length of an array?

## **Unit 2: Methods and Control Statements (25 Questions)**

26. What is a method in Java?
27. What are the advantages of using methods?
28. What is method overloading?
29. Can two methods have the same name in Java?
30. What is the return type of a method?
31. What is the difference between call by value and call by reference?
32. What are static methods?
33. Can a static method access instance variables?
34. What is the difference between static and non-static blocks?
35. What is the purpose of the this keyword?
36. Can this keyword be used inside a static method? Why?
37. What are conditional statements in Java?
38. What is the syntax of the if-else statement?
39. What is the difference between if-else and switch?
40. What is a ternary operator?
41. What are the types of loops in Java?
42. What is the difference between while and do-while loop?
43. What is an infinite loop? Give an example.
44. What is the difference between break and continue statements?

45. What are nested loops?
46. Can we use a switch statement with strings?
47. What is recursion?
48. What is the difference between recursion and iteration?
49. What happens if recursion never terminates?
50. Can we overload the main() method?

## **Unit 3: OOP Concepts (30 Questions)**

51. What is Object-Oriented Programming?
52. What are the main principles of OOP?
53. What is a class?
54. What is an object?
55. What is a constructor?
56. What is the difference between constructor and method?
57. What is constructor overloading?
58. What is the default constructor?
59. What is the use of the super keyword?
60. What is inheritance?
61. What are the types of inheritance supported in Java?
62. Why is multiple inheritance not supported in Java (through classes)?
63. What is the use of method overriding?
64. What is polymorphism?
65. What is the difference between compile-time and runtime polymorphism?
66. What is dynamic method dispatch?
67. What is an abstract class?
68. Can an abstract class have a constructor?
69. What is an interface in Java?
70. What is the difference between an interface and an abstract class?
71. Can an interface have default and static methods?
72. What is multiple inheritance through interfaces?
73. What is the final keyword used for?
74. What is the difference between final, finally, and finalize()?
75. What is a package in Java?
76. How do we import a package?
77. What is the use of the java.lang package?
78. Can we create our own package?
79. What is encapsulation?
80. How do getters and setters achieve encapsulation?

## **Unit 4: Exception Handling (20 Questions)**

81. What is an exception?
82. What is the difference between an error and an exception?
83. What are the two types of exceptions in Java?
84. What is the use of the try and catch block?
85. Can we have multiple catch blocks?
86. What is the purpose of the finally block?
87. Will the finally block execute if there is a return statement in the try block?
88. What is the difference between throw and throws?
89. Can we use a try block without a catch?
90. What is a checked exception?
91. What is an unchecked exception?
92. Give an example of a checked exception.
93. Give an example of an unchecked exception.

94. What is the parent class of all exceptions?
95. What is NullPointerException?
96. What is ArithmeticException?
97. How can we create our own custom exception?
98. What happens if an exception is not handled?
99. Can we rethrow an exception?
100. What is exception chaining?