

FUNDAMENTALS OF JAVA

1. What is Java?
(A) A type of coffee
(B) A programming language
(C) An island in Indonesia
(D) All of the above
2. Which of the following is true about Java?
(A) It is a low-level language
(B) It is a purely procedural language
(C) It is platform-dependent
(D) It is an object-oriented language
3. Which of the following is NOT a primitive data type in Java?
(A) int
(B) float
(C) char
(D) String
4. What is the entry point for the execution of a Java program?
(A) start()
(B) main()
(C) execute()
(D) run()
5. How is memory allocated in Java for objects?
(A) Using malloc()
(B) Using new keyword
(C) Automatically by the garbage collector
(D) Using allocateMemory() method
6. What is the keyword used for inheritance in Java?
(A) inherit
(B) extends
(C) derive
(D) include
7. What is the purpose of the 'static' keyword in Java?
(A) To make a method static
(B) To declare a variable as a class variable
(C) To create static objects
(D) Both a and b
8. What is the default value of an instance variable in Java if it is not initialized?
(A) 0 (for numeric types)
(B) null (for objects)
(C) false (for boolean)
(D) All of the above

9. What is the purpose of the 'super' keyword in Java?
- (A) To call the superclass constructor
 - (B) To refer to the immediate parent class object
 - (C) To invoke a static method
 - (D) Both a and b
10. Which method is called when an object is about to be garbage collected?
- (A) destroy()
 - (B) finalize()
 - (C) dispose()
 - (D) clean()
11. What is the difference between '==' and 'equals()' in Java?
- (A) They are the same
 - (B) '==' compares object references, while 'equals()' compares object content
 - (C) '==' compares object content, while 'equals()' compares object references
 - (D) '==' is used for primitive data types, and 'equals()' is used for objects
12. Which of the following is a feature of Java?
- (A) Pointers
 - (B) Multiple Inheritance
 - (C) Memory Management by Programmer
 - (D) Both A and B
13. What is the main purpose of the 'public static void main(String[] args)' method in Java?
- (A) To declare variables
 - (B) To initialize the program
 - (C) Entry point of the program
 - (D) To print output to the console
14. How is Java platform-independent?
- (A) Java uses a universal syntax
 - (B) Java programs are translated into machine code
 - (C) Java uses a bytecode that can be executed on any platform
 - (D) Java doesn't run on any platform
15. Which keyword is used to declare a constant in Java?
- (A) constant
 - (B) final
 - (C) static
 - (D) const
16. What is the correct way to create an object of a class in Java?
- (A) Object obj = new Object();
 - (B) new Object obj = Object();
 - (C) Object obj = createObject();
 - (D) createObject(obj);
17. What is the purpose of the 'break' statement in Java?
- (A) To exit the program
 - (B) To terminate a loop prematurely

- (C) To skip the current iteration in a loop
 - (D) To print output to the console
18. How is memory managed in Java?
- (A) Manual memory allocation and deallocation
 - (B) Garbage Collection
 - (C) Stack-based memory management
 - (D) Pointers
19. What is the purpose of the "this" keyword in Java?
- (A) To refer to the current instance of the class
 - (B) To create a new object
 - (C) To call a method from another class
 - (D) To initialize variables
20. In Java, how is memory allocated for objects?
- (A) Automatically by the compiler
 - (B) Explicitly using the malloc function
 - (C) Dynamically at runtime using the 'new' keyword
 - (D) Statically at compile-time
21. What is the Java Virtual Machine (JVM)?
- (A) A physical machine where Java programs run
 - (B) A compiler used for Java programs
 - (C) A software-based machine that runs Java bytecode
 - (D) A debugger tool for Java programs
22. What does the term "JavaBeans" refer to in Java?
- (A) Coffee beans from Java
 - (B) Reusable software components in Java
 - (C) The main method in Java
 - (D) A type of loop in Java
23. Which collection class is synchronized in Java?
- (A) ArrayList
 - (B) LinkedList
 - (C) HashMap
 - (D) Vector
-
24. What is a Java package?
- (A) A collection of classes and interfaces
 - (B) A data type in Java
 - (C) A loop in Java
 - (D) A Java application
25. What is the primary purpose of using packages in Java?
- (A) To create graphical user interfaces
 - (B) To organize and group related classes and interfaces
 - (C) To handle exceptions in a program
 - (D) To implement multi-threading

26. Which keyword is used to declare a package in Java?

- (A) import
- (B) class
- (C) extends
- (D) package

27. What is an exception in Java?

- (A) A runtime error
- (B) A syntax error
- (C) A logical error
- (D) A compile-time error

28. Which keyword is used to handle exceptions in Java?

- (A) try
- (B) catch
- (C) throw
- (D) throws

29. What is the purpose of the 'finally' block in Java exception handling?

- (A) To catch and handle exceptions
- (B) To throw an exception
- (C) To clean up resources
- (D) Which of the following statements is true about checked exceptions in Java?
- (E) To declare checked exceptions
- (F)

Which of the following statements is true about checked exceptions in Java?

- (A) They are subclasses of Error
- (B) They must be caught or declared
- (C) They are optional to catch or declare
- (D) They are thrown explicitly using the 'throw' keyword

30. What happens if an exception is thrown inside the 'try' block in Java?

- (A) The program continues execution after the 'try' block
- (B) The program terminates
- (C) The 'catch' block is executed
- (D) The 'finally' block is executed

31. Which of the following is NOT a type of exception in Java?

- (A) Checked exception
- (B) Unchecked exception
- (C) Runtime exception
- (D) Compile-time exception

32. What is the purpose of the 'throw' keyword in Java?

- (A) To declare a method that may throw an exception
- (B) To catch an exception and handle it
- (C) To create a new exception and throw it explicitly
- (D) To suppress exceptions

33. Which exception is thrown when an array index is out of bounds in Java?

- (A) `ArrayIndexOutOfBoundsException`
- (B) `NullPointerException`
- (C) `IndexOutOfBoundsException`
- (D) `IllegalArgumentException`

34. What is the default exception handling behavior in Java?

- (A) `Terminate the program`
- (B) Print a stack trace and continue
- (C) Print an error message and continue
- (D) Print a stack trace and terminate the program

35. Which of the following is a subclass of `RuntimeException` in Java?

- (A) `IOException`
- (B) `ClassNotFoundException`
- (C) `NullPointerException`
- (D) `FileNotFoundException`