

Name Class Date **Java Test4**

Total questions: 50

Worksheet time: 25mins

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1. What is inheritance in Java?
  - a) Code duplication
  - b) Acquiring properties of one class into another
  - c) Multiple method calling
  - d) Overloading methods
2. Which keyword is used to inherit a class in Java?
  - a) implements
  - b) import
  - c) extends
  - d) inherits
3. Which keyword is used to refer to the immediate parent class?
  - a) base
  - b) this
  - c) parent
  - d) super
4. What does the 'final' keyword mean when applied to a variable?
  - a) It can be changed
  - b) It can be inherited
  - c) It is temporary
  - d) It cannot be changed
5. Which class cannot be extended in Java?
  - a) static class
  - b) abstract class
  - c) interface
  - d) final class
6. What is an abstract class?
  - a) A class with only private members
  - b) A class that cannot be instantiated
  - c) A class that can only contain variables
  - d) A class with no name
7. What is an interface?
  - a) A blueprint of a class with abstract methods
  - b) A final class
  - c) A class with methods
  - d) An enum

8. Which keyword is used to define an abstract class?
- a) class
  - b) interface
  - c) abstract
  - d) final
9. Which keyword prevents method overriding?
- a) final
  - b) abstract
  - c) static
  - d) super
10. Can an abstract class have constructors?
- a) Only static
  - b) Only private
  - c) Yes
  - d) No
11. Can a final method be overridden?
- a) Only in subclasses
  - b) No
  - c) Only if public
  - d) Yes
12. Can an abstract class have concrete methods?
- a) Yes
  - b) Only private
  - c) Only static
  - d) No
13. Can a class implement multiple interfaces?
- a) Yes
  - b) Only two
  - c) Only one
  - d) No
14. Which method type must be implemented when a class implements an interface?
- a) Final
  - b) Private
  - c) Static
  - d) Abstract
15. What is the default modifier for interface methods in Java 8?
- a) private
  - b) public abstract
  - c) default
  - d) protected
16. Can we create an object of an abstract class?
- a) Only using new
  - b) No
  - c) Yes
  - d) Only via interface

17. What is method overriding?
- a) Changing return type
  - b) Using static methods
  - c) Two methods with same name and signature in different classes
  - d) Same method name but different parameters
18. What is method overloading?
- a) Runtime polymorphism
  - b) Using multiple classes
  - c) Two methods with same name but different parameters
  - d) Abstract method declaration
19. Which keyword is used to inherit from an interface?
- a) implements
  - b) super
  - c) extends
  - d) inherits
20. Which access specifier allows inheritance in different packages?
- a) protected
  - b) private
  - c) default
  - d) static
21. What is a constructor?
- a) A method to initialize an object
  - b) Used to inherit classes
  - c) Used in interfaces
  - d) A method to destroy objects
22. Can constructors be final?
- a) Only in abstract classes
  - b) Yes
  - c) Only in inner classes
  - d) No
23. What is the return type of a constructor?
- a) none
  - b) int
  - c) void
  - d) no return type
24. Which of these is not a type of inheritance in Java?
- a) Multilevel
  - b) Single
  - c) Hierarchical
  - d) Multiple

25. Why does Java not support multiple inheritance with classes?
- a) Faster performance
  - b) Complexity and ambiguity
  - c) Security reasons
  - d) Java syntax rules
26. What is the use of super()?
- a) Call parent constructor
  - b) Call static method
  - c) Call own constructor
  - d) Invoke abstract method
27. Which of the following cannot be abstract?
- a) Class
  - b) None
  - c) Method
  - d) Constructor
28. Can a constructor be overloaded?
- a) Yes
  - b) Only with final keyword
  - c) No
  - d) Only static
29. What happens if we don't define a constructor?
- a) Compiler error
  - b) Object cannot be created
  - c) Must extend another class
  - d) Default constructor is provided
30. What is the keyword used to stop inheritance?
- a) final
  - b) stop
  - c) this
  - d) break
31. Interfaces can contain?
- a) Constants and abstract methods
  - b) Static classes
  - c) Only abstract methods
  - d) Only constants
32. What is a default method in an interface?
- a) Abstract method
  - b) Method with body in interface
  - c) Static method
  - d) Method with default access
33. Can interface methods be private?
- a) No
  - b) Yes
  - c) Only in abstract class
  - d) Only if final

34. Can you extend multiple classes in Java?
- a) Only with inner class
  - b) Yes
  - c) No
  - d) Only with interface
35. What type of relationship does inheritance define?
- a) Uses-A
  - b) None
  - c) Has-A
  - d) Is-A
36. What happens when two interfaces have same method signature and a class implements both?
- a) It inherits both
  - b) Runtime error
  - c) Compiler error
  - d) One must override it
37. What is diamond problem in Java?
- a) Interface error
  - b) Polymorphism bug
  - c) Array issue
  - d) Inheritance conflict in multiple classes
38. Which one is true about interface variables?
- a) They are protected
  - b) They are public and non-final
  - c) They are public static final
  - d) They are private
39. Can an interface extend another interface?
- a) Yes
  - b) No
  - c) Only with abstract methods
  - d) Only one
40. Can abstract class implement an interface?
- a) Yes
  - b) No
  - c) Only if no abstract methods
  - d) Only if public
41. Can abstract class extend another abstract class?
- a) Only one level
  - b) No
  - c) Yes
  - d) Only if final
42. Can a final class have a constructor?
- a) No
  - b) Only static
  - c) Only default
  - d) Yes

43. If class A extends B and B extends C, then which class is the super class of A?

- a) B
- b) A
- c) C
- d) Object

44. How many interfaces can a class implement?

- a) Only 1
- b) Only 2
- c) Unlimited
- d) None

45. What is true about final parameters?

- a) Can be changed
- b) Must be initialized
- c) Only used in constructors
- d) Cannot be initialized

46. Which of these allows multiple inheritance?

- a) Final method
- b) Class
- c) Constructor
- d) Interface

47. Can we use abstract and final together?

- a) Only with classes
- b) No
- c) Only with constructors
- d) Yes

48. Which interface method types are allowed from Java 8?

- a) Only abstract
- b) Abstract and static
- c) Static, default, private
- d) Only private

49. Can static method be abstract?

- a) Only in interface
- b) No
- c) Yes
- d) Only in class

50. Which one of these cannot be overridden?

- a) static method
- b) all of these
- c) final method
- d) private method

**Answer Keys**

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| 1. b) Acquiring properties of one class into another | 2. c) extends  | 3. d) super  |
| 4. d) It cannot be changed                           | 5. d) final class  | 6. b) A class that cannot be instantiated                  |
| 7. a) A blueprint of a class with abstract methods   | 8. c) abstract   | 9. a) final  |
| 10. c) Yes   | 11. b) No  | 12. a) Yes   |
| 13. a) Yes   | 14. d) Abstract  | 15. b) public abstract                                     |
| 16. b) No  | 17. c) Two methods with same name and signature in different classes | 18. c) Two methods with same name but different parameters |
| 19. a) implements                                    | 20. a) protected   | 21. a) A method to initialize an object                    |
| 22. d) No  | 23. d) no return type  | 24. d) Multiple  |
| 25. b) Complexity and ambiguity                      | 26. a) Call parent constructor                                       | 27. d) Constructor   |
| 28. a) Yes   | 29. d) Default constructor is provided                               | 30. a) final   |
| 31. a) Constants and abstract methods                | 32. b) Method with body in interface                                 | 33. b) Yes   |
| 34. c) No  | 35. d) Is-A  | 36. d) One must override it                                |
| 37. d) Inheritance conflict in multiple classes      | 38. c) They are public static final                                  | 39. a) Yes   |
| 40. a) Yes   | 41. c) Yes   | 42. d) Yes   |
| 43. c) C   | 44. c) Unlimited   | 45. b) Must be initialized                                 |
| 46. d) Interface                                     | 47. b) No  | 48. c) Static, default, private                            |
| 49. b) No  | 50. b) all of these  |  |

