QUIZIZZ Worksheets

Name

OOPS JAVA UNIT-3 TEST-3

Total questions: 22

Worksheet time: 44mins

Instructor name: Mr. PRASHANT ATMAKURI

Class

Date

1. Which of the following best describes an interface in Java?

a) A concrete implementation of a class with predefined methods.

b) A blueprint for a class that cannot be instantiated.

c) A type of variable used for method overloading.

d) A special type of class that can only contain static methods.

2. How are interfaces different from abstract classes?

a) Abstract classes can contain both abstract and concrete methods, while interfaces can only contain abstract methods.

b) Abstract classes can have instance variables, while interfaces cannot.

c) Interfaces cannot be extended by other interfaces, while abstract classes can.

d) Interfaces can have constructors, while abstract classes cannot.

3. Which keyword is used to declare an interface in Java?

a) interface

b) implements

c) class

d) abstract

4. How can a class in Java realize an interface?

a) By directly inheriting from the interface class.

b) By using the implements keyword followed by the class name.

c) By using the implements keyword followed by the interface name.

d) By using the extends keyword.

5. Which of the following is true about interfaces in Java?

   a) An interface can implement another interface.
   b) An interface can extend a class.
   c) A class can implement multiple interfaces.

6. What happens if a class in Java fails to implement all the methods of an interface it claims to implement?

   a) It compiles successfully, but throws a runtime exception.
   b) It has no effect on compilation or runtime behavior.
   c) It automatically inherits the default implementations of those methods.
   d) It results in a syntax error during compilation.

7. Which of the following statements about interface variables is true?

   a) Interface variables are implicitly final and static.
   b) Interface variables can have different access modifiers depending on the implementing class.
   c) Interface variables can be reassigned new values after declaration.
   d) Interface variables can only be accessed through static methods.

8. Can an interface in Java contain fields (variables)?

   a) Yes, but only if they are declared as private.
   b) No, fields are not allowed in any interface.
   c) Yes, but only if they are declared as static final.
   d) No, interfaces cannot contain fields.

9. How many interfaces can a class implement in Java?

   a) Unlimited
   b) Two
   c) Only one
   d) Three

10. Which of the following statements about interface inheritance is true?

a) An interface can inherit from multiple classes.
b) A class can inherit from multiple interfaces.
c) An interface cannot inherit from another interface.
d) An interface can inherit from both classes and other interfaces.

11. In Java, what does it mean for a class to "realize" an interface?

a) The class defines new methods that are not declared in the interface.
b) The class provides concrete implementations for all methods declared in the interface.
c) The class inherits all methods from the interface without implementing them.
d) The class extends the interface using the extends keyword.

12. What key words are implied when we write methods for an interface?

a) void
b) static
c) public
d) abstract

13. Can an interface extend a class in Java?

a) Only if the class is declared as final.
b) Only if the class is declared as abstract.
c) No
d) Yes

14. Interface constants can be overridden by implementing classes.

a) Interface constants can only be accessed within the interface.
b) Interface constants can be overridden by implementing classes.
c) Interface constants are not allowed in Java.
d) Interface constants must be initialized when declared.

15. What happens if a class explicitly implements an interface but does not provide an implementation for one of its methods?

a) The class compiles successfully, and the method must be implemented by subclasses.

b) The class fails to compile due to a missing method implementation.

c) The class compiles successfully, and the method inherits a default implementation from the interface.

d) The class compiles successfully, and the method remains abstract.

16. Which of the following is NOT a valid way to access an interface method?

a) Casting an object to the interface type and then calling the method.

b) Using polymorphism to call the method through a superclass reference.

c) Creating an object of the interface type and calling the method.

d) Calling the method using the interface name followed by the dot operator.

17. What is the primary purpose of using interfaces in Java?

a) To enforce multiple inheritance.

b) To allow classes to have multiple constructors.

c) To restrict access to certain methods and variables.

d) To provide a way for classes to share common method signatures without sharing implementation details.

18. Which of the following is true about method overriding in Java interfaces?

a) Methods in interfaces cannot be overridden.

b) Classes implementing interfaces can override methods defined in the interface.

c) Methods in interfaces are final and cannot be overridden.

19. What is the significance of marking a method in an interface as static?

a) It makes the method immutable and prevents any changes to its behavior.
b) It ensures that the method cannot be overridden by implementing classes.
c) It restricts the method to be accessed only within the interface.
d) It allows the method to be called without creating an instance of the implementing class.

20. Which of the following is a valid way to declare a constant in an interface?

a) public static int MY_CONSTANT = 10;
b) final int MY_CONSTANT;
c) private static final int MY_CONSTANT = 10;
d) public static final int MY_CONSTANT = 10;

21. In Java, can an interface extend another interface?

a) Only if the extended interface is marked as abstract.
b) No
c) Yes
d) Only if the extended interface contains default methods.

22. What is the main reason for using interfaces instead of abstract classes in Java?

a) Interfaces can contain constructors, while abstract classes cannot.
b) Interfaces support multiple inheritance, while abstract classes do not.

Answer Keys

1. b) A blueprint for a class that cannot be instantiated.
2. a) Abstract classes can contain both abstract and concrete methods, while interfaces can only contain abstract methods.
3. a) interface
4. c) By using the implements keyword followed by the interface name.
5. c) A class can implement multiple interfaces.
6. d) It results in a syntax error during compilation.
7. a) Interface variables are implicitly final and static.
8. c) Yes, but only if they are declared as static final.
9. a) Unlimited
10. b) A class can inherit from multiple interfaces.
11. b) The class provides concrete implementations for all methods declared in the interface.
12. c) public , d) abstract
13. c) No
14. d) Interface constants must be initialized when declared.
15. b) The class fails to compile due to a missing method implementation.
16. d) Calling the method using the interface name followed by the dot operator.
17. d) To provide a way for classes to share common method signatures without sharing implementation details.
18. b) Classes implementing interfaces can override methods defined in the interface.

19. d) It allows the method to be called without creating an instance of the implementing class.

20. d) public static final int MY_CONSTANT = 10;

21. c) Yes

22. b) Interfaces support multiple inheritance, while abstract classes do not.