

1. Which of the following is not a principle of Object Oriented Programming?

- a) Encapsulation
- b) Abstraction
- c) Inheritance
- d) Compilation

2. What does polymorphism in Object Oriented Programming refer to?

- a) The ability to process objects differently based on their data type
- b) The ability to create a new class based on an existing class
- c) The ability to hide data within a class
- d) The ability to define multiple methods with the same name

3. Which of the following is an example of encapsulation?

- a) Using classes to represent data and methods
- b) Using interfaces to define methods
- c) Using a private variable in a class and accessing it via public methods
- d) Using inheritance to create a new class

4. Which concept allows a subclass to provide a specific implementation of a method already provided by its parent class?

- a) Inheritance
- b) Overloading
- c) Overriding
- d) Abstraction

5. Which of the following is true about an abstract class?

- a) It can be instantiated
- b) It cannot have abstract methods
- c) It can have both abstract and non-abstract methods
- d) It must be declared as final

6. In Java, what is an object?

- a) A data type
- b) An instance of a class
- c) A blueprint for a class
- d) A method within a class

7. Which keyword is used to create an object in Java?

- a) create
- b) new
- c) class
- d) instantiate

8. What does a constructor do in a class?

- a) Sets the class name
- b) Initializes an object
- c) Destroys an object
- d) Creates a method

9. Which of the following is a correct way to declare an object in Java?

- a) `ClassName obj = new ClassName();`
- b) `ClassName obj;`
- c) `new ClassName();`
- d) `ClassName = new obj();`

10. Which of the following is not a feature of the 'this' keyword in Java?

- a) It can be used to refer to the current class instance
- b) It can be used to invoke the current class constructor
- c) It can be used to refer to the parent class instance
- d) It can be used to pass an argument in the method call

11. Which of the following is a primitive data type in Java?

- a) String
- b) Array
- c) int
- d) Object

12. What is the size of a float data type in Java?

- a) 8 bits
- b) 16 bits
- c) 32 bits
- d) 64 bits

13. Which of the following is used to declare a constant in Java?

- a) const
- b) constant
- c) final
- d) static

14. What is the default value of a boolean variable in Java?

- a) true
- b) false

- c) 0
- d) null

15. Which data type is used to create a variable that should store text in Java?

- a) myString
- b) string
- c) txt
- d) String

16. Which operator is used to add together two values?

- a) The & operator
- b) The + operator
- c) The * operator
- d) The / operator

17. Which operator is used to compare two values?

- a) =
- b) ==
- c) !=
- d) ===

18. What is the result of the expression 5 % 2?

- a) 2
- b) 2.5
- c) 1
- d) 0

19. Which operator can be used to increment a variable's value?

- a) ++
- b) --

- c) +=
- d) *=

- c) scanner.stop();
- d) scanner.finish();

20. What does the '&&' operator represent in Java?

- a) Logical AND
- b) Logical OR
- c) Bitwise AND
- d) Bitwise OR

25. Which class provides methods for input in Java?

- a) System
- b) Scanner
- c) Input
- d) Console

21. How can you take input from the user in Java?

- a) System.in.println();
- b) Scanner input = new Scanner(System.in);
- c) Console.readLine();
- d) InputStreamReader input = new
InputStreamReader(System.in);

26. What does Math.sqrt(16) return?

- a) 8
- b) 4
- c) 2
- d) 16

22. What method would you use to read an integer from the user using Scanner?

- a) next()
- b) nextInt()
- c) nextLine()
- d) nextInteger()

27. What is the result of Math.pow(2, 3)?

- a) 6
- b) 8
- c) 9
- d) 4

23. Which of the following is used to read a line of text from the user?

- a) nextInt()
- b) next()
- c) nextLine()
- d) nextDouble()

28. Which method would you use to round a number to the nearest integer?

- a) Math.ceil()
- b) Math.floor()
- c) Math.round()
- d) Math.nearest()

24. How do you close a Scanner object?

- a) scanner.close();
- b) scanner.end();

29. What does Math.abs(-5) return?

- a) 5
- b) -5
- c) 0

- d) -1

- d) do

30. Which method would you use to find the largest number in a set of numbers?

- a) Math.max()
- b) Math.min()
- c) Math.ceil()
- d) Math.floor()

35. Which statement is used to stop a loop?

- a) return
- b) break
- c) continue
- d) exit

31. Which statement is used to test for a specific condition?

- a) switch
- b) if
- c) for
- d) while

36. Which loop is guaranteed to execute at least once?

- a) for
- b) while
- c) do-while
- d) foreach

32. How do you start an if statement in Java?

- a) if x > y:
- b) if (x > y)
- c) if x > y then
- d) if (x > y);

37. Which of the following is the correct syntax for a for loop?

- a) for (int i = 0; i < 10; i++) {}
- b) for int i = 0; i < 10; i++ {}
- c) for (i < 10; i++) {int i = 0;}
- d) for (int i = 0; i < 10; i+1) {}

33. Which keyword is used to execute some code if a condition is false?

- a) else
- b) switch
- c) break
- d) continue

38. How do you write a for-each loop in Java?

- a) for (int i : array) {}
- b) foreach (int i : array) {}
- c) for-each (int i in array) {}
- d) for (int i in array) {}

34. How can you execute a block of code repeatedly while a condition is true?

- a) for
- b) while
- c) if

39. What is the output of the following code?

```
for (int i = 0; i < 5; i++) {  
    System.out.print(i + " ");  
}
```

...

- a) 1 2 3 4 5
- b) 0 1 2 3 4
- c) 0 1 2 3 4 5
- d) 1 2 3 4

40. Which keyword is used to skip the current iteration of a loop?

- a) break
- b) skip
- c) continue
- d)

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41. How do you create a nested for loop?

- a) `for (int i = 0; i < 10; i++) { for (int j = 0; j < 10; j++) {} }`
- b) `for (int i = 0; i < 10; i++ { for (int j = 0; j < 10; j++) {} }`
- c) `for (int i = 0; i < 10; i++) for (int j = 0; j < 10; j++) {}`
- d) `for (int i = 0; i < 10; i++); { for (int j = 0; j < 10; j++) {} }`

42. Which of the following is not a library class in Java?

- a) ArrayList
- b) HashMap
- c) MyCustomClass
- d) Scanner

43. What is a user-defined method in Java?

- a) A method that is defined by the user to perform a specific task
- b) A method that is predefined by the Java API
- c) A method that is used only for debugging
- d) A method that automatically executes

44. Which of the following is a valid user-defined method declaration?

- a) `public void myMethod() {}`
- b) `public myMethod() {}`
- c) `void myMethod() {}`
- d) `public void myMethod {}`

45. What is the purpose of a library class in Java?

- a) To provide commonly used methods and functionalities
- b) To define custom methods for the user
- c) To handle hardware-specific tasks
- d) To define the main method in a program

These questions cover various aspects of each topic and should help reinforce your understanding of Java concepts.