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) \*=

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

- a) Logical AND

- b) Logical OR

- c) Bitwise AND

- d) Bitwise OR

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);

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

- a) next()

- b) nextInt()

- c) nextLine()

- d) nextInteger()

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

- a) nextInt()

- b) next()

- c) nextLine()

- d) nextDouble()

24. How do you close a Scanner object?

- a) scanner.close();

- b) scanner.end();

- c) scanner.stop();

- d) scanner.finish();

25. Which class provides methods for input in Java?

- a) System

- b) Scanner

- c) Input

- d) Console

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

- a) 8

- b) 4

- c) 2

- d) 16

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

- a) 6

- b) 8

- c) 9

- d) 4

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()

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

- a) 5

- b) -5

- c) 0

- d) -1

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()

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

- a) switch

- b) if

- c) for

- d) while

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);

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

- a) else

- b) switch

- c) break

- d) continue

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

- a) for

- b) while

- c) if

- d) do

35. Which statement is used to stop a loop?

- a) return

- b) break

- c) continue

- d) exit

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

- a) for

- b) while

- c) do-while

- d) foreach

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) {}

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) {}

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)

pass

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.