Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

1. Java is a _____ programming language.
    a. Functional
    b. Object-Oriented
    c. Theoretical
    d. All the above

    Ans: b. Object-Oriented

    Explanation: Everything in Java is implemented using Object-Oriented principles.

2. _____ represents an entity in the real world that can be distinctly identified.
    a. A class
    b. An object
    c. A method
    d. A data field

    Ans: b. An object

    Explanation: An object represents a real-world entity that can be distinctly identified, like a car, person, or book in programming. It is an instance of a class.

3. What is an object in Java?
    a. static reference
    b. template or blueprint
    c. instance of class
    d. entity in memory

    Ans: c. instance of class

    Explanation: An object in Java is an instance of a class, created from the blueprint (class) that defines its properties and behaviors.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

4. The class determines only the _____ of the variable.
    a. Types
    b. Collection
    c. Location
    d. Set

Ans: a. Types

Explanation: A class defines what kind of data a variable can hold, like a number or text.

5. What is a class in Java?
    a. static reference
    b. template or blueprint
    c. instance of class
    d. user-defined data type

Ans: b. template or blueprint

Explanation: A class in Java defines the structure and behavior of objects, acting as a blueprint to create instances.

6. The actual _____ is contained inside the individual objects and not in the class.
    a. Information
    b. Data
    c. Collection
    d. Variable

Ans: b. Data

Explanation: The actual Data is contained inside individual objects, not in the class itself.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

7. Every _____ Has its own set of data.
    a. Class
    b. Variable
    c. Operator
    d. Objects

Ans: d. Objects

Explanation: Every Object has its own set of data. While a class defines the structure or blueprint, each object created from that class can hold its own specific data.

8. _____ is invoked to create an object.
    a. A constructor
    b. The main method
    c. A method with a return type
    d. A method with the void return type

Ans: a. A constructor

Explanation: A constructor is invoked to create an object. It is a special method that is automatically called when an object of a class is created.

9. _____ allocated different memory space to hold their data values.
    a. Classes
    b. Variables
    c. Operators
    d. Objects

Ans: d. Objects

Explanation: Objects are allocated different memory spaces to hold their data values.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

10. In oop, creating an object is also called _____ Instantiation
    a. Class
    b. Object
    c. Inheritance
    d. Polymorphism

Ans: a. Class

Explanation: When you create an object, you are instantiating a class, meaning you are creating an instance of the class.

11. _____ is a construct that defines objects of the same type.
    a. A class
    b. An object
    c. A method
    d. A data field

Ans: a. A class

Explanation: A class is a blueprint or template in Object-Oriented Programming (OOP) that defines the structure and behavior of objects of the same type.

12. A_____defines the attribute of an object
    a. Program
    b. Class
    c. Inherited
    d. Duplicate

Ans: b. Class

Explanation: In object-oriented programming, instance variables are the attributes that define the characteristics of an instance (or object) of a class.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

13. The _____ defines the kind of attribute
    a. Program
    b. Variables
    c. Property
    d. Class

Ans: d. Class

Explanation: A class defines the structure and type of attributes for objects.

14. To define an object's behaviour _____ are created.
    a. Instances
    b. Programs
    c. Methods
    d. Functions

Ans: c. Methods

Explanation: In object-oriented programming, methods define an object's behavior.

15. In java _____ can be defined only inside a class.
    a. Instances
    b. Programs
    c. Methods
    d. Functions

Ans: c. Methods

Explanation: In Java, methods can only be defined inside a class.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

16. _____ keyword returns a reference to an object that represents an instance of the class.
    a. new
    b. New
    c. NEW
    d. nEW

Ans: a. new

Explanation: In Java, the new keyword is used to create new objects.

17. Each object _____ Has its own set of data.
    a. Example
    b. Instance
    c. Function
    d. Method

Ans: b. Instance

Explanation: When an object is created from a class, it becomes an instance of that class, and each instance has its own unique data.

18. Instance variables and instance methods are accessed via _____.
    a. Classes
    b. Variables
    c. Operators
    d. Objects

Ans: d. Objects

Explanation: Instance variables and instance methods are accessed via objects. An object represents an instance of a class and contains its own data and behaviors.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

19. Objects can be referred by using _____ Operator.
    a. Colon(:)
    b. Underscore (_)
    c. Dot(.)
    d. Angle bracket(<)

Ans: c. Dot(.)

Explanation: In Java, objects are referred to using the dot (.) operator. It is used to access the properties (instance variables) and methods of an object.

20. When the programmer declares a _____ object is not created.
    a. Class
    b. Variable
    c. Operator
    d. Method

Ans: a. Class

Explanation: When a class is declared, no object is created. Objects are created later using the new keyword.

21. Reference variable does not refer to any object and its initial value is _____ by default
    a. Zero
    b. One
    c. Null
    d. Minus one

Ans: c. Null

Explanation: A reference variable is null by default, meaning it doesn't point to any object.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

22. Which of the following statements is a valid declaration of an object that belongs to "MyClass"?
    a. MyClass obj = new MyClass();
    b. MyClass obj = new MyClass;
    c. obj = new MyClass();
    d. new MyClass obj;

Ans: a. MyClass obj = new MyClass();

Explanation: MyClass obj = new MyClass(); which creates an object of MyClass. This correctly declares and initializes the object in one statement.

23. Which of the following statements is incorrect?
    a. Each class should have a main() method
    b. The program does not require a main() method
    c. We can only have one main() method in a program
    d. main() method must be public

Ans: a. Each class should have a main() method

Explanation: A class can only have one main() method that is public.

24. A Java class can contain_____.
    a. Variables
    b. Methods, Constructors
    c. Inner Classes (A class inside another class)
    d. All the above

Ans: d. All the above

Explanation: A Java class can contain variables (fields), methods, constructors, and even other classes (called inner classes) inside it.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

25. Which are the object characteristics?
    a. State
    b. Behavior
    c. Identity
    d. All of the above

Ans: d. All of the above

Explanation: An object has three characteristics: its state (data), behavior (methods), and identity (uniqueness).

26. When an object is created, a special method called ____is executed to perform initial talk.
    a. Function
    b. Constructor
    c. Class
    d. Method

Ans: b. Constructor

Explanation: When an object is created in Java, a special method called a Constructor is automatically called.

27. A variable, which gets memory at runtime when an object is created is called?
    a. static variable
    b. local variable
    c. instance variable
    d. global variable

Ans: c. instance variable

Explanation: An instance variable is a variable that gets memory at runtime when an object is created

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

28. The new keyword is used for_____.
    a. allocating memory at runtime
    b. allocating memory at compile time
    c. releasing memory at runtime
    d. initializing variables

Ans: a. allocating memory at runtime

Explanation: The new keyword in Java is used to allocate memory for objects at runtime.

29. Can an object be initialized in Java by?
    a. reference variable
    b. method
    c. constructor
    d. All of the above

Ans: d. All of the above

Explanation: An object in Java can be initialized using a reference variable, method, or constructor.

30. What is an object in Java?
    a. A reference to a class
    b. A runtime entity
    c. A method
    d. An attribute

Ans: b. A runtime entity

Explanation: An object in Java is created while the program is running and represents an instance of a class.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

31. What are the main components of a class?
    a. Attributes and Packages
    b. Objects and References
    c. Methods and Attributes
    d. Constructors and Destructors

Ans: c. Methods and Attributes

Explanation: A class in Java consists of attributes (data) and methods (functions) that define its behavior.

32. Which of the following is a real-world example of an object in OOP?
    a. Blueprint of a house
    b. The physical house built from the blueprint
    c. A tool used to design blueprints
    d. A programming function

Ans: b. The physical house built from the blueprint

Explanation: In OOP, an object is an instance of a class. Just as the physical house is an instance built from the blueprint, an object is created based on the class definition.

33. What is the role of a constructor in a Java class?
    a. To define static blocks of code
    b. To initialize an object during its creation
    c. To create a nested interface
    d. To invoke methods automatically

Ans: b. To initialize an object during its creation

Explanation: A constructor in Java is a special method used to initialize an object when it is created. It sets the initial values for the object's attributes.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

34. What does the state of an object represent?
    a. The methods an object can execute
    b. The data (values) stored in the object
    c. The unique identity of the object
    d. The behavior of the object

Ans: b. The data (values) stored in the object

Explanation: The state of an object refers to the data or values stored in its attributes, which can change over time based on the object's behavior.

35. What does the behavior of an object represent?
    a. The data associated with the object
    b. The functionality or methods of the object
    c. The memory location of the object
    d. The unique identity of the object

Ans: b. The functionality or methods of the object

Explanation: The behavior of an object represents the actions it can perform, defined by its methods or functions in the class.

36. How does the JVM uniquely identify each object?
    a. Using the object's behavior
    b. Using the object's state
    c. Using the object's identity
    d. Using the object's methods

Ans: c. Using the object's identity

Explanation: The JVM uniquely identifies each object using its identity, which is typically represented by the memory address where the object is stored.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

37. Which of the following is NOT a characteristic of an object in Java?
    a. State
    b. Behavior
    c. Identity
    d. Constructor

Ans: d. Constructor

Explanation: An object has state (data), behavior (methods), and identity (uniqueness), while a constructor just initializes the object.

38. What does the identity of an object refer to?
    a. The data stored in the object
    b. The unique reference used by the JVM to distinguish objects
    c. The methods defined in the class
    d. The constructor of the object

Ans: b. The unique reference used by the JVM to distinguish objects

Explanation: The identity of an object refers to the unique reference or memory address used by the JVM to differentiate one object from another.

39. What is the primary relationship between a class and an object?
    a. A class is an instance of an object.
    b. An object is a blueprint for a class.
    c. A class defines the structure, and an object is the implementation.
    d. A class and an object are the same.

Ans: c. A class defines the structure, and an object is the implementation.

Explanation: A class is like a plan, and an object is a real example created from that plan.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

40. Which of these is an example of creating an object in Java?
    a. Car car = new Car();
    b. int car = 5;
    c. class Car {}
    d. Car();

Ans: a. Car car = new Car();

Explanation: This is how you create an object in Java. It declares a reference variable car of type Car and uses the new keyword to create an instance of the Car class.

41. Which of the following is the correct syntax for defining a class in Java?
    a. class { field; method; }
    b. class <class_name> { field; method; }
    c. <class_name> class { field; method; }
    d. class <field> { method; }

Ans: b. class <class_name> { field; method; }

Explanation: This syntax defines a class with a name, and inside it, you declare fields (attributes) and methods (functions).

42. Which of the following is a correct rule for naming a class in Java?
    a. Class names should start with a lowercase letter.
    b. Class names should always be in uppercase letters.
    c. Class names should start with a capital letter.
    d. Class names can only contain numbers and symbols.

Ans: c. Class names should start with a capital letter.

Explanation: In Java, it's a convention to start class names with an uppercase letter, and subsequent words are written in camel case (e.g., MyClass).

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

43. Which of the following is NOT a valid class name in Java?
    a. Car
    b. Bike123
    c. myCar
    d. 2Wheeler

Ans: d. 2Wheeler

Explanation: In Java, class names cannot start with a number. Therefore, 2Wheeler is invalid. Class names must start with a letter, underscore (_), or dollar sign ($).

44. Where does the new keyword allocate memory for objects in Java?
    a. Stack memory
    b. Register memory
    c. Heap memory
    d. Cache memory

Ans: c. Heap memory

Explanation: In Java, the new keyword allocates memory for objects in the heap memory. The heap is where all dynamically created objects are stored during runtime.

45. How can you initialize an object in Java?
    a. By using a constructor
    b. By using a reference variable
    c. By using a method
    d. All of the above

Ans: d. All of the above

Explanation: In Java, you can initialize an object using a constructor, a reference variable, or a method. All these ways allow setting values or initializing the object.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

46. Which option allows you to modify object values after initialization?
    a. Constructor
    b. Method
    c. Reference variable
    d. Static method

Ans: b. Method

Explanation: A method is used to modify an object's values after it has been initialized.

47. How can you initialize an object using a reference variable?
    a. Assign values directly to instance variables.
    b. Call the __init__ method.
    c. Use a static method.
    d. Use a lambda function.

Ans: a. Assign values directly to instance variables.

Explanation: After creating an object, you can initialize or modify its values by directly assigning them to the instance variables.

48. Which method in Java is typically used to initialize an object when it is created?
    a. Constructor
    b. Method
    c. Static method
    d. Finalizer

Ans: a. Constructor

Explanation: A constructor is automatically called when an object is created, and it is used to initialize the object with default or provided values.

Name of the Bundle	Advanced Bundle V2	Subject	Java Programming V2
Topic	Class & Objects	Last updated on	07 January 2025

49._____variables define the attribute of an object.

a. Program
b. Instance
c. Inherited
d. Duplicate

Ans: b. Instance

Explanation: Instance variables define the attributes of an object, as each object can have its own unique set of values for these variables.