Java Model Paper

Java Practice Exam - Set 1 (Basic Level)

Section 1: Classes, Objects, and Variable Declaration

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

   a) `true`

   b) `false`

   c) `0`

   d) `null`

2. **In Java, a class can directly inherit from:**

   a) Only one superclass

   b) Multiple classes

   c) Any number of classes

   d) Only abstract classes

3. **Which of the following cannot be used as a variable name in Java?**

   a) `_name`

   b) `1name`

   c) `NAME`

   d) `n_a_m_e`

4. **What does the `new` keyword in Java do?**

   a) Creates a new variable

   b) Allocates memory for an object

   c) Defines a class

   d) Deletes an object

5. **Which is true about a constructor in Java?**

a) It must have the same name as the class

b) It must have a return type

c) It can have any name

d) It can only be used for inheritance

6. **Which statement correctly creates an object in Java?**

   a) `Class obj;`

   b) `Class obj = new Class();`

   c) `new Class obj;`

   d) `obj = Class();`

7. **What is the default access level of a variable with no access modifier?**

   a) `public`

   b) `private`

   c) `protected`

   d) `default`

8. **Which keyword is used to declare a constant variable in Java?**

   a) `constant`

   b) `static`

   c) `final`

   d) `const`

9. **Which of the following is true about an instance variable?**

   a) It is shared by all objects of a class

   b) It is unique to each instance of a class

   c) It cannot be assigned a default value

   d) It must be declared `static`

10. **Which keyword is used to define a class?**

    a) `class`

    b) `define`

c) `object`

d) `new`

Java Practice Exam - Set 2 (Intermediate Level)

Section 1: Inheritance, Polymorphism, and Encapsulation

1. **Which of the following correctly describes method overloading?**

   a) Overriding a method in the child class

   b) Declaring multiple methods with the same name but different parameters

   c) Declaring multiple methods with the same name and same parameters

   d) Inheriting a method from the superclass

2. **If a subclass does not override an abstract method of its superclass, what will happen?**

   a) The subclass will be compiled successfully

   b) The subclass will become an abstract class itself

   c) The subclass will give a runtime error

   d) The superclass method will be called by default

3. **Which of the following access modifiers is the most restrictive?**

   a) `public`

   b) `protected`

   c) `private`

   d) `default`

4. **What will happen if a class has two methods with the same name but different parameter lists?**

   a) A compilation error

   b) Both methods can be called without any issue

   c) Java will choose one method randomly

   d) Only the first method will be called

5. **What is the purpose of `super` in inheritance?**

   a) It allows access to superclass variables and methods

   b) It creates an instance of the superclass

   c) It refers to the current class

   d) It imports packages

6. **What is the default access level for a member in a class?**

   a) `private`

   b) `protected`

   c) `public`

   d) `default`

7. **Which of the following cannot be inherited?**

   a) Public methods

   b) Static methods

   c) Non-final variables

   d) Protected methods

8. **In polymorphism, a method that is defined in multiple classes must have:**

   a) The same name only

   b) Different return types

   c) The same name and parameters

   d) Only different names

9. **The keyword used to prevent a class from being extended is:**

   a) `static`

   b) `final`

   c) `abstract`

   d) `public`

10. **What keyword is used to create a subclass?**

    a) `implements`

b) `extends`

c) `inherits`

d) `super`

Java Practice Exam - Set 3 (Advanced Intermediate Level)

Section 1: Abstraction, Packages, and Interfaces

1. **An interface can contain which of the following elements?**

   a) Only static methods

   b) Only abstract methods

   c) Static and abstract methods

   d) Static, abstract, and private methods

2. **If a class implements an interface, it must:**

   a) Implement all methods in the interface

   b) Extend the interface

   c) Override only abstract methods in the interface

   d) Override methods optionally

3. **The package statement must be written:**

   a) After import statements

   b) Before import statements

   c) After the class declaration

   d) Anywhere in the class

4. **What is the default value of an instance variable of type `int` in Java?**

   a) 0

   b) null

   c) undefined

   d) 1

5. **Which keyword is used to import a package in Java?**

   a) `include`

   b) `import`

   c) `package`

   d) `use`

6. **Can an abstract class have a constructor?**

   a) Yes

   b) No

   c) Only if it has abstract methods

   d) Only if it has static methods

7. **In Java, which package is imported by default in every program?**

   a) `java.awt`

   b) `java.lang`

   c) `java.util`

   d) `java.io`

8. **If a variable is declared as `protected`, it is accessible within:**

   a) All packages

   b) The same package and subclasses

   c) Only the same class

   d) Only subclasses

9. **What will happen if a variable is declared `final`?**

   a) Its value can be changed once assigned

   b) Its value cannot be changed once assigned

   c) It must be assigned a value in the constructor

   d) It cannot be accessed outside its class

10. **An abstract class is:**

    a) A class with no methods

b) A class that cannot be instantiated

c) A class with all abstract methods

d) A subclass only

Java Practice Exam - Set 4 (Advanced Level)

Section 1: Interfaces, Abstract Classes, and Method Overriding

1. **Which of the following statements about interfaces is correct?**

   a) An interface can have a constructor

   b) An interface can be instantiated

   c) An interface can have `default` and `static` methods

   d) An interface can contain instance variables

2. **Which of these statements correctly describes method overriding in Java?**

   a) Overriding changes the return type but keeps the same parameters

   b) Overriding changes the parameter list but keeps the same method name

   c) Overriding allows a subclass to provide a specific implementation of a method in the superclass

   d) Overriding and overloading are synonymous

3. **What is true about abstract classes in Java?**

   a) Abstract classes cannot have constructors

   b) Abstract classes can be instantiated directly

   c) Abstract classes can contain both abstract and non-abstract methods

   d) Abstract classes must implement all interface methods

4. **When an interface method has a `default` implementation, a class implementing the interface can:**

   a) Ignore the method

   b) Override the method if desired

   c) Not override the method

d) Extend the interface to use the method

5. **Which access modifier should be used for the maximum encapsulation within a class?**

   a) `protected`

   b) `default`

   c) `public`

   d) `private`

6. **In which of the following cases will a compilation error occur?**

   a) A class contains both abstract and concrete methods

   b) A non-abstract class has an abstract method

   c) An abstract class is extended by another class

   d) A concrete class implements an interface

7. **If a class is marked `final`, which of the following is true?**

   a) It cannot have private methods

   b) It cannot have abstract methods

   c) It can be extended

   d) It cannot have instance variables

8. **How is an abstract method different from a regular method?**

   a) It must have a body

   b) It does not specify any implementation

   c) It can be called without an instance

   d) It must be `public`

9. **What is polymorphism in the context of Java programming?**

   a) A single variable or method behaving differently depending on the object that invokes it

   b) Creating multiple objects of a class

   c) Extending multiple classes

d) Implementing multiple interfaces

10. **Which of the following is true about `protected` access modifier?**

    a) `protected` members are accessible only within the same package

    b) `protected` members are accessible in the same package and subclasses

    c) `protected` members are accessible only within the same class

    d) `protected` members are accessible only through instances

Java Practice Exam - Set 5 (Expert Level)

Section 1: Advanced Polymorphism, Scoping, and Keywords

1. **What would be the output if a `static` method is overridden in a subclass?**

    a) The subclass method will always be called

    b) The superclass version will be hidden, not overridden

    c) A runtime exception will occur

    d) It will override the superclass version

2. **Which combination of access modifiers and keywords would make a class uninstantiable?**

    a) `abstract` only

    b) `final` only

    c) `final` and `static`

    d) `private` and `final`

3. **What happens if a class does not declare any constructor?**

    a) The class will not compile

    b) Java will provide a default no-argument constructor

    c) Java will provide a default constructor with parameters

    d) The superclass constructor must be called

4. **Which of the following is true about a `final` variable?**

    a) It can be assigned a value multiple times

b) It must be assigned a value when declared

c) It must be assigned a value either at declaration or in the constructor

d) It can be modified at runtime

5. **What is the primary purpose of the `super` keyword in a subclass constructor?**

   a) To call the superclass method

   b) To call the superclass constructor

   c) To initialize instance variables

   d) To override a superclass method

6. **In which of these situations is a compilation error generated?**

   a) A class that extends an abstract class overrides all its methods

   b) A class implements an interface without implementing its methods

   c) A concrete class does not implement all interface methods

   d) A class has only private methods

7. **Which of the following is true about method overloading?**

   a) Overloaded methods must have different return types

   b) Overloaded methods must have the same parameter list

   c) Overloaded methods can have different parameter lists

   d) Overloaded methods can only be `static`

8. **Which of the following is not a valid access modifier?**

   a) `public`

   b) `default`

   c) `global`

   d) `protected`

9. **In Java, which statement is true about static methods?**

   a) Static methods cannot access instance variables

   b) Static methods can only be overridden by static methods

c) Static methods can access `this` keyword

d) Static methods cannot access other static methods

10. **Which of the following describes the purpose of the `extends` keyword?**

    a) To implement an interface

    b) To call a superclass constructor

    c) To inherit from a superclass

    d) To create multiple inheritance in Java