**Multiple-Choice Questions (MCQs)**

1. **In System.out.println, out is:**  
   a) Class  
   b) Method  
   c) Output stream object  
   d) None of these
2. **Which one of the following statements is wrong?**  
   a) A base class reference can refer to an object of a derived class  
   b) The dynamic method dispatch is not carried out at runtime  
   c) The super() method refers to the base class constructor  
   d) The super.base-class-method-name() format can be used only within a derived class
3. **What is the output of this code fragment?**

java

Copy code

int x = 3;

int y = 10;

System.out.println(y % x);

a) 0  
b) 1  
c) 2  
d) 3

1. **What would happen if constructors had return types?**  
   a) Compilation error  
   b) Runtime error  
   c) Successful compilation and execution  
   d) Only String return type is allowed
2. **JVM is:**  
   a) Platform-dependent  
   b) Platform-independent  
   c) Depends on machine architecture only  
   d) Depends on operating system only
3. **Which one of the following is wrong?**  
   a) 'Runnable' is a predefined interface  
   b) The sleep() method instructs a thread to terminate its execution  
   c) The isAlive() method tells whether a thread has not yet died  
   d) MAX\_PRIORITY represents the level 10
4. **Find out the output of the following:**

java

Copy code

class GfG {

public static void main(String args[]) {

String s1 = new String("JISCSE");

String s2 = new String("JISCSE");

if (s1 == s2)

System.out.println("Equal");

else

System.out.println("Not equal");

}

}

a) Equal  
b) Not equal  
c) Not equal Equal  
d) Equal Not equal

1. **Which keyword is used to create an abstract class in Java?**  
   a) abstract  
   b) encapsulate  
   c) private  
   d) virtual
2. **Exception created by try block is caught in which block?**  
   a) catch  
   b) throw  
   c) final  
   d) None
3. **How many objects will be created for the following:**

java

Copy code

String str1 = "abc";

String str2 = new String("abc");

a) 1  
b) 2  
c) 0  
d) None of the above

1. **What is the purpose of the clone method in Java?**  
   a) It is used to create a copy of an object  
   b) It is used to clone a class  
   c) It is used to override a method  
   d) It is used to create an interface
2. **What is the purpose of the super() statement in a constructor?**  
   a) It calls the superclass constructor  
   b) It calls the current class constructor  
   c) It creates a new object  
   d) It is not a valid statement in Java
3. **Which component is used to compile, debug, and execute the Java programs?**  
   a) JRE  
   b) JDK  
   c) JVM  
   d) JIT
4. **Which keyword is used to declare an interface?**  
   a) int  
   b) interface  
   c) Interface  
   d) None of the above
5. **Evaluate the output of the following Java code:**

java

Copy code

class Box {

int width;

int height;

int length;

}

class Main {

public static void main(String args[]) {

Box obj = new Box();

obj.width = 10;

obj.height = 2;

obj.length = 10;

int y = obj.width \* obj.height \* obj.length;

System.out.print(y);

}

}

a) 100  
b) 400  
c) 200  
d) 12

1. **Evaluate the output of the following code:**

java

Copy code

class Main {

public static void main(String arg[]) {

int Integer = 24;

char String = 'I';

System.out.print(Integer);

System.out.print(String);

}

}

a) 24I  
b) Compilation error  
c) Throws exception  
d) I

1. **Which one of the following statements is not correct?**  
   a) An interface can inherit another interface.  
   b) The package name and subdirectory name should not be identical.  
   c) Only the classes declared as public in a package are accessible outside that package.  
   d) The import java.awt.\* will not import classes in the java.awt.event package.
2. **class A { int a = 5; } a is \_\_\_\_\_\_\_\_\_\_ variable.**  
   a) instance  
   b) local  
   c) class  
   d) none of these
3. **A class AP is stored within a package P1 and for instantiating class AP in the class B of package P2 (without importing P1), we should use \_\_\_\_\_\_\_\_**  
   a) P1.AP object1 = new P1.AP();  
   b) AP object1 = new AP();  
   c) AP object1;  
   d) None of these
4. **Which of these functions is called to display a string as the output of an applet?**  
   a) display()  
   b) paint()  
   c) displayApplet()  
   d) drawString()
5. **When do exceptions in Java arise in the code sequence?**  
   a) Run Time  
   b) Compilation Time  
   c) Can Occur Any Time  
   d) None of the mentioned
6. **Which of these keywords is not a part of exception handling?**  
   a) try  
   b) finally  
   c) throw  
   d) catch
7. **How can we create a thread?**  
   a) By extending Thread class  
   b) By implementing Runnable interface  
   c) Both (a) and (b)  
   d) None of these
8. **Which of these methods is a part of the Abstract Window Toolkit (AWT)?**  
   a) display()  
   b) paint()  
   c) init()  
   d) transient()
9.  **Which of these can be overloaded?**  
   a) Methods  
   b) Constructors  
   c) Both a & b  
   d) None of the mentioned
10.  **Which of the access specifiers can be used for an interface?**  
    a) Public  
    b) Protected  
    c) Private  
    d) All of the mentioned
11.  **What is byte code in the context of Java?**  
    a) The type of code generated by a Java compiler  
    b) The type of code generated by a Java Virtual Machine  
    c) It is another name for a Java source file  
    d) It is the code written within the instance methods of a class
12.  **Which statement is true about a static nested class?**  
    a) You must have a reference to an instance of the enclosing class in order to instantiate it.  
    b) It does not have direct access to non-static members of the enclosing class.  
    c) Its variables and methods must be static.  
    d) It must extend the enclosing class
13.  **What restriction is there on using the super reference in a constructor?**  
    a) It can only be used in the parent's constructor.  
    b) Only one child class can use it.  
    c) It must be used in the last statement of the constructor.  
    d) It must be used in the first statement of the constructor.
14.  **Inner classes are:**  
    a) Anonymous classes  
    b) Nested classes  
    c) Subclasses  
    d) Derived classes
15.  **Out of the following, which one is not correctly matched?**  
    a) Int – 24 bits  
    b) Short – 16 bits  
    c) Double – 64 bits  
    d) Byte – 8 bits
16.  **What is the correct ordering for the import, class, and package declarations when found in a single file?**  
    a) package, import, class  
    b) class, import, package  
    c) import, package, class  
    d) package, class, import
17.  **What is the return type of constructors?**  
    a) int  
    b) float  
    c) void  
    d) None of the mentioned
18.  **Which of the keywords can be used in a subclass to call the constructor of the superclass?**  
    a) super  
    b) this  
    c) extent  
    d) extends
19.  **Which of these packages contains the abstract keyword?**  
    a) java.lang  
    b) java.util  
    c) java.io  
    d) java.system
20.  **When do exceptions in Java arise in the code sequence?**  
    a) Run Time  
    b) Compilation Time  
    c) Can Occur Any Time  
    d) None of the mentioned
21. **Which of the following is not a Java feature?**  
    a) Dynamic  
    b) Architecture Neutral  
    c) Use of pointers  
    d) Object-oriented
22. **A package is a collection of:**  
    a) Classes  
    b) Interfaces  
    c) Editing tools  
    d) Both (a) and (b)
23. **Which of these methods waits for the thread to terminate?**  
    a) sleep()  
    b) isAlive()  
    c) join()  
    d) stop()
24. **Which of these is a superclass of all errors and exceptions in the Java language?**  
    a) RunTimeExceptions  
    b) Throwable  
    c) Catchable  
    d) None of the above
25. **What will be the output of the following code?**

java

Copy code

int arr[] = new int[5];

arr = new int[6];

a) The code has compile errors because the variable arr cannot be changed once it is assigned.  
b) The code has runtime errors because the variable arr cannot be changed once it is assigned.  
c) The code can compile and run fine. The second line assigns a new array to arr.  
d) The code has compile errors because we cannot assign a different size array to arr.

1. **Exception is defined in which package?**  
   a) java.util  
   b) java.awt  
   c) java.io  
   d) java.lang
2. **In Java, Scanner is a:**  
   a) Class  
   b) Object  
   c) Variable  
   d) Method
3. **Which of these is a mechanism for naming and visibility control of a class and its content?**  
   a) Object  
   b) Packages  
   c) Interfaces  
   d) None of the mentioned
4. **Out of the following, which one is not correctly matched?**  
   a) Int — 24 bits  
   b) Short — 16 bits  
   c) Double — 64 bits  
   d) Byte — 8 bits
5. **String in Java is a:**  
   a) Class  
   b) Object  
   c) Variable  
   d) Character array
6. **Which of these keywords is not a part of exception handling?**  
   a) try  
   b) finalized  
   c) throw  
   d) catch
7. **What will happen if you run the following code?**

java

Copy code

try {

int x = 0;

int y = 5 / x;

}

catch (Exception e) {

System.out.println("Exception");

}

catch (ArithmeticException ae) {

System.out.println("Arithmetic Exception");

}

System.out.println("finished");

a) finished  
b) Exception  
c) Compilation fails.  
d) Arithmetic Exception

1. **Exception is defined in which package?**  
   a) java.util  
   b) java.awt  
   c) java.io  
   d) java.lang
2. **Java is a \_\_\_\_\_\_\_\_\_\_ language.**  
   a) Strongly typed  
   b) Moderately typed  
   c) Weakly typed  
   d) None of these
3. **What will be the output of the following code?**

java

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int arr[] = new int[5];

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1. **String in Java is a:**  
   a) Class  
   b) Object  
   c) Variable  
   d) Character array
2. **Given the following classes:**

java

Copy code

class Base {

public void show() {

System.out.println("Base::show() called");

}

}

class Derived extends Base {

public void show() {

System.out.println("Derived::show() called");

}

}

public class Main {

public static void main(String[] args) {

Base b = new Derived();

b.show();

}

}

What will be the output?  
a) Derived::show() called  
b) Base::show() called  
c) Compile time error  
d) Runtime error

1. **Automatic type conversion in Java takes place when:**  
   a) Two types are compatible and the size of the destination type is shorter than the source type.  
   b) Two types are compatible and the size of the destination type is equal to the source type.  
   c) Two types are compatible and the size of the destination type is larger than the source type.  
   d) All of the above
2. **In Java, Scanner is a:**  
   a) Class  
   b) Object  
   c) Variable  
   d) Method
3. **Given the following code:**

java

Copy code

class Main {

public static void main(String args[]) {

try {

throw 10;

}

catch(int e) {

System.out.println("Got the Exception " + e);

}

}

}

What will be the output?  
a) Got the Exception 10  
b) Got the Exception 0  
c) Compiler Error  
d) Runtime error

1. **The super keyword always refers to:**  
   a) Derived class  
   b) Base class  
   c) Immediate base class  
   d) All of the above
2. **Which of these is a superclass of all errors and exceptions in the Java language?**  
   a) RunTimeExceptions  
   b) Throwable  
   c) Catchable  
   d) None of the above
3. **Which of the following is/are advantages of packages?**  
   a) Packages avoid name clashes  
   b) Classes, even though they are visible outside their package, can have fields visible to packages only  
   c) We can have hidden classes that are used by the packages, but not visible outside  
   d) All of the above
4. **Which of this method of the String class is used to obtain a character at a specified index?**  
   a) char()  
   b) Charat()  
   c) charat()  
   d) charAt()
5. **The wait() and notify() methods are defined in:**  
   a) java.lang.String  
   b) java.lang.Object  
   c) java.lang.Thread  
   d) java.lang.Runnable
6. **Which one of the following statements is wrong?**  
   a) A base class reference can refer to an object of a derived class  
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1. **Which of these can be overloaded?**  
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   b) Constructors  
   c) Both a & b  
   d) None of the mentioned
2. **What will be the output of the following code?**

java

Copy code

int a = 500;

byte b;

b = (byte) a;

System.out.println(b);

a) 244  
b) Compile time error  
c) -12  
d) None of these

1. **Which statement is true about a static nested class?**  
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2. **In Java, Scanner is a:**  
   a) Class  
   b) Object  
   c) Variable  
   d) Method
3. **Which of these keywords is used to refer to a member of the base class from a subclass?**  
   a) upper  
   b) super  
   c) this  
   d) None of the mentioned
4. **In which memory is a string stored when we create a string using the new operator?**  
   a) Stack  
   b) String memory  
   c) Heap memory  
   d) Random storage space
5. **Which of these is a superclass of all errors and exceptions in the Java language?**  
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   c) thrown  
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