

# Java Syntax MCQs

## Java Basics

1. Which of the following is a valid Java identifier? a) 2variable  
b) `_variable`  
c) variable-name  
d) variable name  
**Answer: b) `_variable`**
  2. What is the default value of an `int` in Java? a) 0  
b) 1  
c) null  
d) undefined  
**Answer: a) 0**
  3. Which keyword is used to define a constant in Java? a) `const`  
b) `final`  
c) `static`  
d) `define`  
**Answer: b) `final`**
  4. What is the size of a `char` in Java? a) 8 bits  
b) 16 bits  
c) 32 bits  
d) 64 bits  
**Answer: b) 16 bits**
  5. Which of the following is not a primitive data type in Java? a) `int`  
b) `float`  
c) `String`  
d) `boolean`  
**Answer: c) `String`**
- 

## Operators

6. What is the output of `10 % 3`? a) 0  
b) 1  
c) 3  
d) 10  
**Answer: b) 1**
  7. Which operator is used for logical AND in Java? a) `&`  
b) `&&`  
c) `||`  
d) `|`  
**Answer: b) `&&`**
  8. What is the result of `5 > 3 ? 10 : 20`? a) 5  
b) 3  
c) 10  
d) 20  
**Answer: c) 10**
  9. Which operator is used to compare two values for equality? a) `=`  
b) `==`  
c) `===`  
d) `!=`  
**Answer: b) `==`**
  10. What is the output of `System.out.println(10 + "20")`? a) 30  
b) 1020  
c) "1020"  
d) Compilation error  
**Answer: b) 1020**
- 

## Control Structures

11. Which loop is guaranteed to execute at least once? a) `for`  
b) `while`  
c) `do-while`  
d) `if`  
**Answer: c) `do-while`**
12. What is the output of the following code?

```
int x = 5;
if (x > 10) {
    System.out.println("A");
} else if (x > 2) {
    System.out.println("B");
} else {
    System.out.println("C");
}
```

- a) A
  - b) B
  - c) C
  - d) No output **Answer: b) B**
13. Which keyword is used to exit a loop in Java? a) break  
b) continue  
c) return  
d) exit **Answer: a) break**
14. What is the output of the following code?

```
for (int i = 0; i < 3; i++) {
    System.out.print(i + " ");
}
```

- a) 0 1 2
  - b) 1 2 3
  - c) 0 1 2 3
  - d) 1 2 **Answer: a) 0 1 2**
15. Which statement is used to skip the current iteration of a loop? a) break  
b) continue  
c) return  
d) skip **Answer: b) continue**

## Arrays

16. How do you declare an array in Java? a) int arr[];  
b) int[] arr;  
c) array int arr;  
d) Both a and b **Answer: d) Both a and b**
17. What is the index of the first element in an array? a) 0  
b) 1  
c) -1  
d) null **Answer: a) 0**
18. What is the output of the following code?

```
int[] arr = {1, 2, 3};
System.out.println(arr.length);
```

- a) 1
  - b) 2
  - c) 3
  - d) 4 **Answer: c) 3**
19. Which of the following is a valid way to initialize an array? a) int[] arr = new int[3];  
b) int[] arr = {1, 2, 3};  
c) int arr[] = new int[]{1, 2, 3};  
d) All of the above **Answer: d) All of the above**
20. What is the output of the following code?

```
int[] arr = new int[5];
System.out.println(arr[2]);
```

- a) 0
- b) 2

- c) 5
  - d) null
- Answer: a) 0**
- 

## Classes and Objects

- 21. Which keyword is used to create an object in Java? a) class  
b) new  
c) object  
d) create
- 22. What is the default access modifier for a class in Java? a) public  
b) private  
c) protected  
d) default (package-private)
- 23. Which method is called when an object is created? a) main()  
b) constructor  
c) finalize()  
d) static block
- 24. What is the output of the following code?

```
class Test {  
    int x = 10;  
}  
public class Main {  
    public static void main(String[] args) {  
        Test obj = new Test();  
        System.out.println(obj.x);  
    }  
}
```

- a) 0
  - b) 10
  - c) null
  - d) Compilation error
- Answer: b) 10**
- 25. Which keyword is used to refer to the current object in Java? a) this  
b) super  
c) self  
d) current
- Answer: a) this**
- 

## Inheritance

- 26. Which keyword is used to inherit a class in Java? a) extends  
b) implements  
c) inherits  
d) super
- 27. What is the output of the following code?

```
class A {  
    void display() {  
        System.out.println("A");  
    }  
}  
class B extends A {  
    void display() {  
        System.out.println("B");  
    }  
}  
public class Main {  
    public static void main(String[] args) {  
        A obj = new B();  
        obj.display();  
    }  
}
```

- a) A
  - b) B
  - c) Compilation error
  - d) Runtime error **Answer: b) B**
28. Which keyword is used to call the constructor of the parent class? a) this  
b) super  
c) extends  
d) parent **Answer: b) super**
29. What is the output of the following code?

```
class A {
    A() {
        System.out.println("A");
    }
}
class B extends A {
    B() {
        System.out.println("B");
    }
}
public class Main {
    public static void main(String[] args) {
        B obj = new B();
    }
}
```

- a) A
  - b) B
  - c) A B
  - d) B A **Answer: c) A B**
30. Which of the following is true about method overriding? a) The method must have the same name and parameters.  
b) The method must have the same return type.  
c) The method must be in a subclass.  
d) All of the above **Answer: d) All of the above**

## Polymorphism

31. What is polymorphism in Java? a) Ability to take multiple forms  
b) Ability to inherit from multiple classes  
c) Ability to override methods  
d) Ability to use the same method name for different methods **Answer: a) Ability to take multiple forms**
32. Which type of polymorphism is achieved by method overriding? a) Compile-time  
b) Runtime  
c) Static  
d) None of the above **Answer: b) Runtime**
33. What is the output of the following code?

```
class A {
    void display() {
        System.out.println("A");
    }
}
class B extends A {
    void display() {
        System.out.println("B");
    }
}
public class Main {
    public static void main(String[] args) {
        A obj = new B();
        obj.display();
    }
}
```

- a) A
  - b) B
  - c) Compilation error
  - d) Runtime error **Answer: b) B**
34. Which keyword is used to prevent method overriding? a) final  
b) static  
c) private  
d) abstract **Answer: a) final**
35. What is the output of the following code?

```
class A {  
    void display() {  
        System.out.println("A");  
    }  
}  
class B extends A {  
    void display() {  
        System.out.println("B");  
    }  
}  
public class Main {  
    public static void main(String[] args) {  
        A obj = new A();  
        obj.display();  
    }  
}
```

- a) A
- b) B
- c) Compilation error
- d) Runtime error **Answer: a) A**

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## Abstraction and Interfaces

36. Which keyword is used to define an abstract class in Java? a) abstract  
b) interface  
c) class  
d) final **Answer: a) abstract**
37. What is the output of the following code?

```
abstract class A {  
    abstract void display();  
}  
class B extends A {  
    void display() {  
        System.out.println("B");  
    }  
}  
public class Main {  
    public static void main(String[] args) {  
        A obj = new B();  
        obj.display();  
    }  
}
```

- a) A
  - b) B
  - c) Compilation error
  - d) Runtime error **Answer: b) B**
38. Which of the following is true about interfaces in Java? a) They can have method implementations.  
b) They can have variables.  
c) They cannot be instantiated.  
d) All of the above **Answer: c) They cannot be instantiated.**
39. What is the output of the following code?

```

interface A {
    void display();
}
class B implements A {
    public void display() {
        System.out.println("B");
    }
}
public class Main {
    public static void main(String[] args) {
        A obj = new B();
        obj.display();
    }
}

```

- a) A
  - b) B
  - c) Compilation error
  - d) Runtime error **Answer: b) B**
40. Which keyword is used to implement an interface in Java? a) extends  
b) implements  
c) interface  
d) abstract **Answer: b) implements**

## Exceptions

41. Which keyword is used to handle exceptions in Java? a) try  
b) catch  
c) finally  
d) All of the above **Answer: d) All of the above**
42. What is the output of the following code?

```

public class Main {
    public static void main(String[] args) {
        try {
            int x = 10 / 0;
        } catch (ArithmeticException e) {
            System.out.println("Exception caught");
        }
    }
}

```

- a) Exception caught
  - b) Compilation error
  - c) Runtime error
  - d) No output **Answer: a) Exception caught**
43. Which block is always executed, regardless of whether an exception is thrown? a) try  
b) catch  
c) finally  
d) throw **Answer: c) finally**
44. What is the output of the following code?

```

public class Main {
    public static void main(String[] args) {
        try {
            int x = 10 / 0;
        } catch (Exception e) {
            System.out.println("Exception caught");
        } finally {
            System.out.println("Finally block");
        }
    }
}

```

- a) Exception caught
- b) Finally block

- c) Exception caught  
Finally block
  - d) Compilation error
- Answer: c) Exception caught  
Finally block**
45. Which keyword is used to explicitly throw an exception? a) throws  
b) throw  
c) try  
d) catch
- Answer: b) throw**
- 

## Collections

46. Which interface is the root of the collection hierarchy in Java? a) List  
b) Set  
c) Map  
d) Collection
- Answer: d) Collection**
47. Which of the following is not a part of the Java Collections Framework? a) ArrayList  
b) HashMap  
c) TreeSet  
d) Array
- Answer: d) Array**
48. What is the output of the following code?

```
import java.util.ArrayList;
public class Main {
    public static void main(String[] args) {
        ArrayList<Integer> list = new ArrayList<>();
        list.add(10);
        list.add(20);
        System.out.println(list.get(1));
    }
}
```

- a) 10
  - b) 20
  - c) Compilation error
  - d) Runtime error
- Answer: b) 20**
49. Which of the following is true about `HashMap` in Java? a) It allows duplicate keys.  
b) It allows duplicate values.  
c) It maintains insertion order.  
d) It is synchronized.
- Answer: b) It allows duplicate values.**
50. What is the output of the following code?

```
import java.util.HashSet;
public class Main {
    public static void main(String[] args) {
        HashSet<String> set = new HashSet<>();
        set.add("A");
        set.add("B");
        set.add("A");
        System.out.println(set.size());
    }
}
```

- a) 1
  - b) 2
  - c) 3
  - d) Compilation error
- Answer: b) 2**
- 

## Generics

51. What is the purpose of generics in Java? a) To allow type-safe collections  
b) To improve performance  
c) To reduce code duplication

- d) All of the above **Answer: a) To allow type-safe collections**
52. Which of the following is a valid generic class declaration? a) class Box {}  
b) class Box<T, U> {}  
c) class Box {}  
d) All of the above **Answer: d) All of the above**
53. What is the output of the following code?

```
class Box<T> {  
    T value;  
    Box(T value) {  
        this.value = value;  
    }  
    T getValue() {  
        return value;  
    }  
}  
  
public class Main {  
    public static void main(String[] args) {  
        Box<Integer> box = new Box<>(10);  
        System.out.println(box.getValue());  
    }  
}
```

- a) 10  
b) null  
c) Compilation error  
d) Runtime error **Answer: a) 10**
54. Which of the following is true about generic methods? a) They can have type parameters.  
b) They can be static.  
c) They can be used with any data type.  
d) All of the above **Answer: d) All of the above**
55. What is the output of the following code?

```
class Box<T> {  
    T value;  
    Box(T value) {  
        this.value = value;  
    }  
    T getValue() {  
        return value;  
    }  
}  
  
public class Main {  
    public static void main(String[] args) {  
        Box<String> box = new Box<>("Hello");  
        System.out.println(box.getValue());  
    }  
}
```

- a) Hello  
b) null  
c) Compilation error  
d) Runtime error **Answer: a) Hello**

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## Multithreading

56. Which class is used to create a thread in Java? a) Thread  
b) Runnable  
c) Both a and b  
d) None of the above **Answer: c) Both a and b**
57. What is the output of the following code?



```
class MyThread extends Thread {
    public void run() {
        System.out.println("Thread running");
    }
}
public class Main {
    public static void main(String[] args) {
        MyThread t = new MyThread();
        t.start();
    }
}
```

- a) Thread running
  - b) Compilation error
  - c) Runtime error
  - d) No output
- Answer: a) Thread running**
58. Which method is used to start a thread in Java? a) run()  
 b) start()  
 c) execute()  
 d) begin()
- Answer: b) start()**
59. What is the output of the following code?

```
class MyThread implements Runnable {
    public void run() {
        System.out.println("Thread running");
    }
}
public class Main {
    public static void main(String[] args) {
        Thread t = new Thread(new MyThread());
        t.start();
    }
}
```

- a) Thread running
  - b) Compilation error
  - c) Runtime error
  - d) No output
- Answer: a) Thread running**
60. Which method is used to make a thread wait for another thread to finish? a) join()  
 b) wait()  
 c) sleep()  
 d) stop()
- Answer: a) join()**

## File Handling

61. Which class is used to read data from a file in Java? a) FileReader  
 b) BufferedReader  
 c) FileInputStream  
 d) All of the above
- Answer: d) All of the above**
62. What is the output of the following code?

```
import java.io File;
public class Main {
    public static void main(String[] args) {
        File file = new File("test.txt");
        System.out.println(file.exists());
    }
}
```

- a) true
  - b) false
  - c) Compilation error
  - d) Runtime error
- Answer: b) false**
63. Which method is used to write data to a file in Java? a) write()  
 b) append()

- c) Both a and b  
d) None of the above **Answer: c) Both a and b**
64. What is the output of the following code?

```
import java.io FileWriter;
public class Main {
    public static void main(String[] args) {
        try {
            FileWriter writer = new FileWriter("test.txt");
            writer.write("Hello");
            writer.close();
        } catch (Exception e) {
            System.out.println("Exception caught");
        }
    }
}
```

- a) Hello  
b) Exception caught  
c) Compilation error  
d) No output **Answer: d) No output**
65. Which class is used to read binary data from a file in Java? a) FileReader  
b) BufferedReader  
c) FileInputStream  
d) FileWriter **Answer: c) FileInputStream**
- 

## Miscellaneous

66. Which keyword is used to prevent a class from being inherited? a) final  
b) static  
c) private  
d) abstract **Answer: a) final**
67. What is the output of the following code?

```
public class Main {
    public static void main(String[] args) {
        System.out.println(Math.abs(-10));
    }
}
```

- a) -10  
b) 10  
c) 0  
d) Compilation error **Answer: b) 10**
68. Which method is used to convert a string to an integer in Java? a) parseInt()  
b) valueOf()  
c) Both a and b  
d) None of the above **Answer: c) Both a and b**
69. What is the output of the following code?

```
public class Main {
    public static void main(String[] args) {
        String str = "Hello";
        System.out.println(str.length());
    }
}
```

- a) 5  
b) 6  
c) Compilation error  
d) Runtime error **Answer: a) 5**
70. Which method is used to compare two strings in Java? a) equals()  
b) compareTo()  
c) Both a and b

d) None of the above

**Answer: c) Both a and b**