

Java if-else Output Questions

Q1: Basic `if` Condition

```
int a = 10;
if (a == 10)
    System.out.println("Ten");
System.out.println("Done");
```

Output:

Ten

Done

Explanation: Both conditions are executed. Second println is outside the if block.

Q2: `if-else` Condition

```
int x = 5;
if (x > 10)
    System.out.println("Greater");
else
    System.out.println("Smaller or Equal");
```

Output:

Smaller or Equal

Explanation: $x > 10$ is false, so else runs.

Q3: `if-else-if` Ladder

```
int num = 0;
if (num > 0)
    System.out.println("Positive");
else if (num < 0)
    System.out.println("Negative");
else
    System.out.println("Zero");
```

Output:

Zero

Explanation: $\text{num} == 0$, so else runs.

Q4: Missing Braces

```
int a = 20;
if (a < 30)
    System.out.println("Less than 30");
    System.out.println("Check Complete");
```

Output:

Less than 30

Check Complete

Explanation: Second println is not inside if, due to missing braces.

Q5: Assignment vs Comparison

```
int a = 5;
if (a = 10)
    System.out.println("Updated");
```

Output:

Compilation Error

Explanation: $a = 10$ is assignment, not boolean comparison.

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Q6: `else` Confusion

```
int x = 5;
if (x > 0)
    if (x < 10)
        System.out.println("Small");
    else
        System.out.println("Large");
```

Output:

Small

Explanation: else matches inner if.

Q7: Conditions with Strings

```
String s1 = "Hello";
String s2 = new String("Hello");
if (s1 == s2)
    System.out.println("Same");
else
    System.out.println("Different");
```

Output:

Different

Explanation: == compares references, not values.

Q8: Logical Conditions

```
int x = 5;
int y = 10;
if (x > 0 && y < 5)
    System.out.println("Case 1");
else
    System.out.println("Case 2");
```

Output:

Case 2

Explanation: One condition is false, so else runs.