

## Self-Assessment Quiz – Logic Statements

1. Which comparison operator should be used to check if two values (with datatype) are equal in JavaScript?

- =
- ==
- ===
- !=

**Explanation:** The triple equals (===) operator is used for strict equality comparison in JavaScript.

2. In a logical OR (||) operation, what is the result if at least one of the operands is true?

- **True**
- False
- Undefined
- Null

**Explanation:** In a logical OR operation, the result is true if at least one of the operands is true.

3. Which of the following are valid logical operators in JavaScript? (Select all that apply)

- **&& (AND)**
- **|| (OR)**
- **! (NOT)**
- ^= (XOR)

**Explanation:** The choice d) ^= (XOR) is incorrect. There is no XOR operator in JavaScript.

4. True or False: The result of a comparison operation in JavaScript is always a boolean value.

- **True**
- False

**Explanation:** The statement is true. Comparison operations in JavaScript always result in a boolean value, either true or false.

5. What is the result of the following code: ``var x = true && false;``?

- true
- **false**
- undefined

- null

**Explanation:** The logical AND operator (`&&`) returns `false` if any of the operands is `false`. In this case, `true` is the first operand and `false` is the second operand. Therefore, the result is `false`.

6. What is the syntax for an else if statement in JavaScript?

- `elseif`
- `else if`
- **`else if`**
- `elif`

**Explanation:** The correct syntax for an else if statement in JavaScript is 'else if'. Option c) is the correct answer.

7. How many else if statements can be used in a single if-else block?

- Only one
- **Multiple**
- None
- Two

**Explanation:** Multiple else if statements can be used in a single if-else block. Option b) is the correct answer.

8. Which of the following are valid syntaxes for an else if statement in JavaScript?

- `if (condition) else if (condition) { }`
- **`if (condition) { } else if (condition) { }`**
- `if (condition) { } elseif (condition) { }`
- `if (condition) { } elif (condition) { }`

9. Which of the following is the correct syntax for a switch statement in JavaScript?

- **`switch (expression) { case value: // code break; }`**
- `if (expression) { case value: // code break; }`
- `for (expression) { case value: // code break; }`
- `switch (value) { case expression: // code break; }`

**Explanation:** The correct syntax for a switch statement in JavaScript is `switch (expression) { case value: // code break; }`. The `expression` is evaluated and compared to each `case` value. If there is a match, the corresponding code block is executed.

10. Which of the following is the correct way to handle default case in a switch statement?

- **default: // code break;**
- case default: // code break;
- else: // code break;
- case else: // code break;

**Explanation:** To handle the default case in a switch statement, you use the `default` keyword followed by a colon `:`. It is placed at the end of all the `case` statements and executes if none of the cases match.

11. What is the result of the following code: `var x = (5 > 3) ? 'Yes' : 'No';`?

- **Yes**
- No
- True
- False

**Explanation:** The conditional (ternary) operator `(condition) ? expression1 : expression2` is used to assign a value based on a condition. In this case, the condition `(5 > 3)` is `true`, so the result is `"Yes"`.

12. Which of the following are valid comparison operators in JavaScript? (Select all that apply)

- **==**
- **!==**
- **>**
- **<=**