

Q1 [Interview] What is the purpose of if-else statements?

Ans: To conditionally execute blocks of code.

Q2 [Interview] What is the syntax of an if statement?

Ans: `if (condition) { // code }`

Q3 [Interview] Can you use else without if?

Ans: No, else must follow an if.

Q4 [Interview] Can we nest if-else statements?

Ans: Yes, if-else blocks can be nested inside each other.

Q5 [Interview] What is the difference between == and === in conditions?

Ans: == allows coercion, === requires strict match.

Q6 [Interview] What does else if do?

Ans: Checks another condition if previous if was false.

Q7 [Interview] What is the switch statement?

Ans: Switch evaluates an expression and executes matching case.

Q8 [Interview] What does break do in switch?

Ans: Prevents fall-through to other cases.

Q9 [Interview] What happens if no break in switch?

Ans: Subsequent cases will also execute.

Q10 [Interview] Can switch use expressions?

Ans: Only in cases (must be constants).

Q11 [Interview] Is default case required in switch?

Ans: No, but it handles unmatched values.

Q12 [Interview] Can switch be replaced with if-else?

Ans: Yes, but switch is cleaner for multiple values.

Q13 [Interview] Can we use string values in switch?

Ans: Yes, switch supports string comparisons.

Q14 [Interview] Does switch use === internally?

Ans: Yes, it uses strict comparison.

Q15 [Interview] Is ternary operator a replacement for if?

Ans: Yes, for simple conditions.

Q16 [DSA] Check if number is positive, negative, or zero.

Ans: Use if-else ladder.

```
if (n > 0) console.log("Positive");  
else if (n < 0) console.log("Negative");  
else console.log("Zero");
```

Q17 [DSA] Grade system using switch on score bracket.

Ans: Use Math.floor(score/10) to reduce cases.

```
switch (Math.floor(score / 10)) {  
  case 10:  
  case 9: console.log('A'); break;  
  case 8: console.log('B'); break;  
  default: console.log('Fail');  
}
```

Q18 [DSA] Check even or odd using if.

Ans: Use modulus operator.

```
if (n % 2 === 0) console.log("Even");  
else console.log("Odd");
```

Q19 [DSA] Compare three numbers using if-else.

Ans: Use nested if conditions.

Q20 [DSA] Check leap year.

Ans: Check divisibility by 4 and not 100 unless 400.

```
if ((y % 4 === 0 && y % 100 !== 0) || y % 400 === 0)
```

Q21 [DSA] Switch case to print day of week.

Ans: Map numbers 1-7 to days.

Q22 [DSA] Use if to check eligibility (age >= 18).

Ans: Simple if condition.

Q23 [DSA] Use ternary operator to return max of 2 numbers.

Ans: let max = (a > b) ? a : b;

Q24 [DSA] Check if character is vowel using switch.

Ans: Check lowercase vowels.

Q25 [DSA] Invalid question

Ans: Invalid question

Q26 [DSA] Classify triangle (equilateral, isosceles, scalene).

Ans: Use if-else to compare sides.

Q27 [DSA] Check if year is century year.

Ans: Year % 100 === 0

Q28 [DSA] Invalid question

Ans: Invalid question

Q29 [DSA] Check if input is number or not.

Ans: Use typeof and isNaN.

Q30 [DSA] Invalid question

Ans: Invalid question

Q31 [LeetCode] Output of: if (0) console.log('Hi')

Ans: Nothing is printed (0 is falsy).

Q32 [LeetCode] Output: if ('0') console.log('Hi')

Ans: Hi is printed ('0' is truthy).

Q33 [LeetCode] Ternary: true ? 1 : 2

Ans: Returns 1.

Q34 [LeetCode] Ternary: false ? 1 : 2

Ans: Returns 2.

Q35 [LeetCode] if (undefined) runs?

Ans: No.

Q36 [LeetCode] switch(1): case '1':

Ans: No match, strict equality fails.

Q37 [LeetCode] switch('a'): case 'a':

Ans: Match found.

Q38 [LeetCode] if (null) console.log('yes')

Ans: Doesn't run.

Q39 [LeetCode] Ternary inside template literal?

Ans: Allowed: `\${x > 5 ? 'big' : 'small'}`

Q40 [LeetCode] switch-case fall-through when no break?

Ans: All subsequent cases execute.

Q41 [Conceptual] What values are falsy in JS?

Ans: 0, "", null, undefined, false, NaN.

Q42 [Conceptual] Is undefined falsy?

Ans: Yes.

Q43 [Conceptual] Difference between else if and nested if?

Ans: Else if runs only if previous is false.

Q44 [Conceptual] Can if be used without {}?

Ans: Yes, for single statements.

Q45 [Conceptual] Can switch use ranges?

Ans: No. Use if-else for ranges.

Q46 [Conceptual] Is it okay to omit break in switch?

Ans: Yes, but may cause fall-through.

Q47 [Conceptual] Can you use comparison in switch cases?

Ans: Only static values.

Q48 [Conceptual] What is use of default in switch?

Ans: Executes if no case matches.

Q49 [Conceptual] When is ternary operator useful?

Ans: Short conditions with 2 outcomes.

Q50 [Conceptual] What is nested ternary?

Ans: Ternary inside ternary: `a ? b : c ? d : e`