1. What is the result of the following code?

Answer : B

* console.log(true && false);
  1. true
  2. false
  3. undefined
  4. null

1. What does the following code output?

Answer : A

* console.log(false || true);
  1. true
  2. false
  3. undefined
  4. null

1. What is the value of result?

Answer : B

* const result = !true;  
  console.log(result);
  1. true
  2. false
  3. undefined
  4. null

1. What will be logged to the console?

Answer : A

* console.log(10 > 5 && 3 < 4);
  1. true
  2. false
  3. undefined
  4. null

1. What will the following code output?

Answer : A

* console.log(5 === 5 || 5 > 10);
  1. true
  2. false
  3. undefined
  4. null

1. What is the result of this code?

Answer : A

* const x = false;  
  const y = true;  
  console.log(x && y || !x);
  1. true
  2. false
  3. undefined
  4. null

1. What does this code evaluate to?

Answer : A

* console.log(!!(5 > 3));
  1. true
  2. false
  3. undefined
  4. null

1. What will result be?

Answer : C

* const result = false || 0 || "hello";  
  console.log(result);
  1. false
  2. 0
  3. "hello"
  4. undefined

1. What will the following code return?

Answer : A

* console.log(null && "JavaScript");
  1. null
  2. "JavaScript"
  3. true
  4. false

1. What does this code output?

Answer : A  
console.log(true || false && false);

* 1. true
  2. false
  3. undefined
  4. null

1. What is the result of the following expression?

Answer : A  
console.log(!("hello" && 0));

* 1. true
  2. false
  3. null
  4. undefined

1. What will be logged?

Answer : A  
console.log(10 || 0 && 5);

* 1. 10
  2. 0
  3. 5
  4. false

1. What will result be?

Answer : B  
const result = "abc" && "def" || "";

console.log(result);

* 1. "abc"
  2. "def"
  3. ""
  4. undefined

1. What does this code evaluate to?

Answer : B  
console.log(3 > 2 && 2 > 4);

* 1. true
  2. false
  3. undefined
  4. null

1. What will the following code return?

Answer : A  
console.log(false || NaN || undefined);

* 1. false
  2. NaN
  3. undefined
  4. null

**#scenario-based questions**

### 1. Eligibility Check

Write a condition to check if a student is eligible for a scholarship. The criteria are:  
- The student’s grade is A or B.  
- The student’s attendance is above 75%.  
Use a ternary operator to assign "Eligible" or "Not Eligible" to a variable.

var student = {

    'grade' : 'B',

    'attendance' : 80 }

var eligibility = ( (student['grade'] == 'A' | student['grade'] == 'B') && student['attendance'] > 75) ? "Eligible for Scholarship" : "Not Eligible for Scholarship";

console.log(eligibility);

### 2. Age Group Classification

Classify a person based on their age:  
- If the age is less than 13, they are a “Child”.  
- If the age is between 13 and 19 (inclusive), they are a “Teenager”.  
- Otherwise, they are an “Adult”.  
Use nested ternary operators to determine the classification.

var age = 15;

var classification = (age < 13) ? "Child" : ((age >= 13 && age <= 19) ? "Teenager" : "Adult");

console.log(classification);

### 3. Login Status

Check the login status of a user. A user is considered logged in if:  
- isLoggedIn is true.  
- Their session is active (sessionActive is true).  
Use a ternary operator to log "Welcome Back" if the user is logged in and "Please Log In" otherwise.

var userStatus = {

    'isLoggedIn' : true,

    'sessionActive' : false }

var loginStatus = ( (userStatus['isLoggedIn'] == true && userStatus['sessionActive'] == true) ? "Welcome Back" : "Please Log In" );

console.log(loginStatus);

### 4. Grade Evaluation

Assign a letter grade based on a student’s score:  
- Scores 90 and above: "A".  
- Scores between 80 and 89: "B".  
- Scores between 70 and 79: "C".  
- Scores below 70: "Fail".  
Use nested ternary operators to determine the grade.

var score = 85;

var grade = ( (score >= 90) ? "A" : (score >= 80 && score <= 89) ? "B" : (score >= 70 && score <= 79) ? "C" : "Fail" );

console.log(`The student grade is ${grade}`);

### 5. Product Discount Validation

Determine the discount for a product based on the following criteria:  
- If the product price is greater than $100, the discount is 20%.  
- Otherwise, the discount is 10%.  
Use a ternary operator to set the discount percentage.

var priceInDollars = 100;

var discountPercentage = (priceInDollars > 100 ? 20 : 10);

console.log(`The discount on the product is ${discountPercentage}%`);