Day-1 Assignment

1. What keyword is used to declare a variable in JavaScript?

- a. variable
- b. declare
- c. var
- d. let

Ans → var & let

2. Which of the following is a valid JavaScript identifier?

- a. 1variable
- b. user name
- c. \$total#amount
- d. javascript-variable

Ans → _user_name

3. What is the purpose of the `const` keyword in JavaScript?

- a. It declares a constant variable that cannot be reassigned.
- b. It declares a variable with a constant value of 1.
- c. It creates a constant loop in the program.
- d. It stands for "continue statement."

Ans → It declares a constant variable that cannot be reassigned.

4. What will be the output of the following code?

```
let x =10;
console.log("x is ", x);
```

- a. x is 10
- b. x is 0
- c. Error
- d. Undefined

Ans \rightarrow x is 10

5. How many statements are in the following code?

```
let x =10; y=20; z=30;
console.log("x is ", x);
```

```
c. 4
```

d. 5

Ans \rightarrow 4

6. What is the correct way to comment a single line in JavaScript?

- a. // This is a comment
- b. /* This is a comment */
- c. # This is a comment
- d. 'This is a comment

Ans → //This is comment

7. What will be the output of the following code?

```
let x;
console.log("x is ", x);
```

- a. x is x
- b. x is 0
- c. Error
- d. Undefined

Ans → x is Undefined

8. What will be the output of the following code?

```
const x=10;
x=20
console.log("x is ", x);
```

- a. x is x
- b. x is 10
- c. Error
- d. Undefined

Ans → Error

9. What is the purpose of the 'let' keyword in JavaScript?

- a. It declares a constant variable.
- b. It declares a variable with a block scope.
- c. It declares a global variable.
- d. It declares a variable with a fixed value.

Ans → It declares a variable with a block scope.

10. How do you declare a multi-line comment in JavaScript?

- a. // This is a comment
- b. /* This is a comment */
- c. # This is a comment
- d. 'This is a comment

Ans → /* This is multi-line comment */

11. What is the primary purpose of a JavaScript variable?

- a. To store and manipulate data
- b. To create loops
- c. To declare functions
- d. To perform mathematical operations

Ans→ To store and manipulate data

12. Which of the following is NOT a valid way to declare a variable in JavaScript?

- a. var x = 10;
- b. let y = 20;
- c. constant z = 30;
- d. const w = 40;

Ans \rightarrow constant z =30

13. What is the significance of the JavaScript `null` value?

- e. It represents an empty string.
- f. It represents an undefined variable.
- g. It explicitly represents nothing or no value.
- h. It indicates a syntax error in the code.

Ans → It explicitly represents nothing or no value

14. Which symbol is used for a strict equality check in JavaScript?

- a. ==
- b. ===
- c. =
- d. !=

Ans \rightarrow ===

15. What is the purpose of the JavaScript `switch` statement?

- a. To declare variables
- b. To perform a conditional execution of code based on multiple conditions
- c. To create loops
- d. To define functions

Ans → To perform a conditional execution of code based on multiple conditions

16. Which of the following is a valid JavaScript identifier for a function?

- a. 123function
- b. calculateSum
- c. \$average#value
- d. function-abc

Ans → calculateSum

17. What does the JavaScript `break` statement do?

- a. Ends the execution of a loop or switch statement.
- b. Skips the current iteration of a loop.
- c. Creates a new variable.
- d. Declares a constant.

Ans → Ends the execution of a loop or switch statement.

18. What is the purpose of the JavaScript `continue` statement?

- a. Ends the execution of a loop.
- b. Skips the remaining code in a loop and continues with the next iteration.
- c. Declares a new variable.
- d. Breaks out of a switch statement.

Ans → Skips the remaining code in a loop and continues with the next iteration

19. Which of the following statements is used to print a message to the console in JavaScript?

- a. display()
- b. log()
- c. print()
- d. console.log()

Ans → console.log

20. In JavaScript, what is the role of the `typeof` operator?

- a. It checks if a variable is defined.
- b. It determines the data type of a variable.
- c. It performs a strict equality check.
- d. It declares a new variable.

Ans \rightarrow It determines the data type of a variable

Interview questions related to JavaScript variables, identifiers, and statements

1. What is a variable in JavaScript?

-A variable in JavaScript is a symbolic name for a value. It is a storage location that holds data, and its value can be changed during the execution of a program.

2. How do you declare a variable in JavaScript?

-You can declare a variable in JavaScript using `var`, `let`, or `const` followed by the variable name. For example:

```
"javascript
var x;
let y;
const z = 10;
```

3. What are the different types of variable declarations in JavaScript?

-There are three ways to declare variables: `var`, `let`, and `const`. `var` has function-level scope, `let` has block-level scope, and `const` is used for constants with block-level scope.

4. Explain the difference between 'var', 'let', and 'const' in variable declarations.

-`var` has function-level scope and is hoisted, `let` has block-level scope and is hoisted but not initialized, and `const` also has block-level scope but cannot be reassigned after initialization.

5. What is variable hoisting in JavaScript?

-Variable hoisting is a JavaScript behavior where variable declarations are moved to the top of their containing scope during the compilation phase. However, only the declaration is hoisted, not the initialization.

6. Can you reassign a value to a variable declared with `const`? Why or why not?

-No, you cannot reassign a value to a variable declared with `const`. `const` creates a constant variable, and once a value is assigned, it cannot be changed.

7. What is the significance of the 'undefined' value in JavaScript variables?

- When a variable is declared but not assigned a value, its default value is `undefined`. It indicates that the variable exists in the current scope but has not been given a value.

8. What is an identifier in JavaScript?

-An identifier in JavaScript is a name given to a variable, function, or label. It is used to identify and reference these entities in the code.

9. What are the rules for naming variables in JavaScript?

- Variable names must start with a letter, underscore (_), or dollar sign (\$). Subsequent characters can also be digits (0-9).

10. Can JavaScript identifiers start with a number?

-No, JavaScript identifiers cannot start with a number. They must begin with a letter, underscore, or dollar sign.

11. Explain the concept of camelCase in JavaScript identifiers.

-CamelCase is a naming convention where the first letter of each word is capitalized except for the first word. It is commonly used in JavaScript for variable and function names (e.g., `myVariableName`).

12. What are reserved words in JavaScript, and why should you avoid using them as identifiers?

-Reserved words are words that have a predefined meaning in JavaScript. They are part of the language syntax, and you should avoid using them as identifiers to prevent conflicts and unexpected behavior.

13. What is a statement in JavaScript?

- A statement in JavaScript is a complete unit of code that performs a specific action. Examples include variable declarations, loops, and conditional statements.

14. Differentiate between an expression and a statement.

-An expression produces a value, while a statement performs an action. Expressions can be part of statements, but statements themselves do not produce values.

15. How do you comment on a single line and multiple lines in JavaScript?

-Single-line comments are created with `//`, and multi-line comments are enclosed between `/*` and `*/`.