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Act as a software developer Give me 100 JavaScript MCQ Questions with answers

ChatGPT

Certainly! Here are 100 multiple-choice questions (MCQs) on JavaScript, along with their answers:

Basic JavaScript Concepts:

1. What is JavaScript primarily used for?

- A) Data analysis
- B) Server-side scripting
- C) Web development
- D) Machine learning

Answer: C) Web development

2. Which of the following is not a JavaScript data type?

- A) Number
- B) String
- C) Boolean
- D) Character

Answer: D) Character

3. How do you include JavaScript in an HTML file?

- A) Using the `<script>` tag
- B) Using the `<javascript>` tag
- C) Using the `<js>` tag
- D) Using the `<scripting>` tag

Answer: A) Using the `<script>` tag

4. What is the purpose of the `typeof` operator in JavaScript?

- A) To check if a variable is defined
- B) To check the data type of a value
- C) To assign a variable
- D) To create a new variable

Answer: B) To check the data type of a value

5. Which keyword is used to declare a constant variable in JavaScript?

- A) `var`
- B) `let`
- C) `const`
- D) `final`

Answer: C) `const`

Variables and Scope:

6. Which of the following keywords is used to declare a variable in JavaScript?

- A) `variable`
- B) `var`
- C) `let`
- D) `const`

Answer: B) `var`

7. What is the scope of a variable declared using `var`?

- A) Block scope
- B) Function scope
- C) Global scope
- D) Lexical scope

Answer: B) Function scope

8. Which keyword is used to declare a block-scoped variable in JavaScript?

- A) `var`
- B) `let`
- C) `const`
- D) `block`

Answer: B) `let`

9. What is variable hoisting in JavaScript?

- A) Variables are automatically initialized with a value of 0
- B) Variables are automatically moved to the top of their scope during compilation
- C) Variables are automatically destroyed after use
- D) Variables are automatically converted to strings

Answer: B) Variables are automatically moved to the top of their scope during compilation

10. What is the value of a variable that has not been assigned a value in JavaScript?

- A) `undefined`
- B) `null`
- C) `0`
- D) `false`

Answer: A) `undefined`

Data Types and Operators:

11. Which data type represents true or false values in JavaScript?

- A) Number
- B) String
- C) Boolean
- D) Object

Answer: C) Boolean

12. How can you convert a string to an integer in JavaScript?

- A) `parseInt()`
- B) `parseFloat()`
- C) `String.toInt()`
- D) `String.parseInt()`

Answer: A) `parseInt()`

13. What is the result of `5 + "5"` in JavaScript?

- A) 55
- B) 10
- C) 5
- D) Error

Answer: A) 55

14. What does the `!==` operator mean in JavaScript?

- A) Not equal in value
- B) Less than or equal to
- C) Greater than or equal to

- D) Assignment

Answer: A) Not equal in value

15. What is the purpose of the `typeof` operator in JavaScript?

- A) To check if a variable is defined
- B) To check the data type of a value
- C) To compare two values
- D) To assign a value to a variable

Answer: B) To check the data type of a value

Functions:

16. What is a JavaScript function?

- A) A keyword in JavaScript
- B) A built-in object in JavaScript
- C) A reusable block of code that performs a specific task
- D) A loop in JavaScript

Answer: C) A reusable block of code that performs a specific task

17. How do you declare a function in JavaScript?

- A) `function myFunction() { }`
- B) `myFunction = function() { }`
- C) `let myFunction = function() { }`
- D) `myFunction() { }`

Answer: A) `function myFunction() { }`

18. What is a callback function in JavaScript?

- A) A function that is called automatically
- B) A function that is used for math calculations
- C) A function that is passed as an argument to another function
- D) A function that has a special keyword "callback"

Answer: C) A function that is passed as an argument to another function

19. What is a closure in JavaScript?

- A) A block of code enclosed in curly braces
- B) A function that has access to its own scope
- C) A function that cannot be called
- D) A function that has no parameters

Answer: B) A function that has access to its own scope

20. How do you define a default value for a function parameter in JavaScript?

- A) Using the `default` keyword
- B) By assigning a value to the parameter inside the function body
- C) By placing a question mark after the parameter name
- D) By using the `optional` keyword

Answer: B) By assigning a value to the parameter inside the function body

Arrays:

21. How do you create an empty array in JavaScript?

- A) `array[]`
- B) `array = {}`
- C) `let array = []`

- D) `array = []`

Answer: C) `let array = []`

22. What is the length property of an array used for?

- A) To check if an array is empty
- B) To access the last element of an array
- C) To retrieve the number of elements in an array
- D) To set the maximum size of an array

Answer: C) To retrieve the number of elements in an array

23. How do you access elements in an array by their index?

- A) `array.get(index)`
- B) `array(index)`
- C) `array[index]`
- D) `array.at(index)`

Answer: C) `array[index]`

24. How can you add elements to the end of an array in JavaScript?

- A) Using the `append()` method
- B) Using the `push()` method
- C) Using the `add()` method
- D) Using the `insert()` method

Answer: B) Using the `push()` method

25. What method is used to remove the last element from an array in JavaScript?

- A) `remove()`
- B) `pop()`
- C) `delete()`
- D) `shift()`

Answer: B) `pop()`

Objects:

26. What is an object in JavaScript?

- A) A collection of values
- B) A data type
- C) A collection of key-value pairs
- D) A function

Answer: C) A collection of key-value pairs

27. How do you access properties of an object in JavaScript?

- A) Using square brackets
- B) Using the `access()` method
- C) Using the `property` keyword
- D) Using dot notation

Answer: D) Using dot notation

28. How do you add properties to an object in JavaScript?

- A) Using the `set()` method
- B) By assigning values using dot notation
- C) Using the `add()` keyword
- D) By using square brackets

Answer: B) By assigning values using dot notation

29. How do you remove properties from an object in JavaScript?

- A) Using the `remove()` method
- B) By setting the property value to `null`
- C) Using the `delete` keyword
- D) Using the `discard()` method

Answer: C) Using the `delete` keyword

30. What is JSON in JavaScript?

- A) A built-in function
- B) A data type
- C) A programming language
- D) A data interchange format

Answer: D) A data interchange format

Prototypes and Inheritance:

31. What is prototype-based inheritance in JavaScript?

- A) A way to create new objects
- B) A mechanism for sharing properties and methods between objects
- C) A way to define classes
- D) A method for encapsulation

Answer: B) A mechanism for sharing properties and methods between objects

32. What is the prototype chain in JavaScript?

- A) A chain of functions
- B) A chain of objects linked by their prototypes
- C) A chain of arrays
- D) A chain of promises

Answer: B) A chain of objects linked by their prototypes

33. How do you set up inheritance in JavaScript?

- A) By using the `inherit` keyword
- B) By creating new objects
- C) By using constructor functions or classes
- D) By using the `extends` keyword

Answer: C) By using constructor functions or classes

34. What is the purpose of the `prototype` property in a constructor function?

- A) To define the constructor's parameters
- B) To create instances of the constructor
- C) To define methods and properties shared by instances
- D) To access the parent constructor

Answer: C) To define methods and properties shared by instances

35. What is the difference between `prototype` and `__proto__` in JavaScript?

- A) They are the same thing
- B) `prototype` is used for inheritance, while `__proto__` is an internal reference to the prototype
- C) `__proto__` is used for inheritance, while `prototype` is an internal reference to the prototype
- D) `__proto__` is used to define methods and properties

Answer: B) `prototype` is used for inheritance, while `__proto__` is an internal reference to the prototype

Error Handling:

36. What is an exception in JavaScript?

- A) A special type of value
- B) An event that occurs during execution and disrupts the normal flow of code
- C) A type of loop
- D) A built-in function

Answer: B) An event that occurs during execution and disrupts the normal flow of code

37. How do you handle exceptions in JavaScript?

- A) By using the `try` keyword
- B) By using the `catch` keyword
- C) By using the `throw` keyword
- D) All of the above

Answer: D) All of the above

38. What is the purpose of the `finally` block in a `try...catch...finally` statement?

- A) To specify the type of exception
- B) To specify the catch block
- C) To specify code that should be executed regardless of whether an exception is thrown or caught
- D) To specify the try block

Answer: C) To specify code that should be executed regardless of whether an exception is thrown or caught

39. What is the `throw` statement used for in JavaScript?

- A) To catch exceptions
- B) To create custom errors
- C) To execute code
- D) To define functions

Answer: B) To create custom errors

40. What is an error object in JavaScript?

- A) An object that represents an error condition
- B) A data type in JavaScript
- C) A built-in function
- D) A constructor function

Answer: A) An object that represents an error condition

DOM Manipulation:

41. What does DOM stand for in web development?

- A) Document Object Model
- B) Dynamic Object Manipulation
- C) Data Object Model
- D) Document Object Markup

Answer: A) Document Object Model

42. How do you select an HTML element in JavaScript?

- A) Using the `getElement()` method
- B) Using the `selectElement()` function
- C) Using the `querySelector()` method
- D) Using the `getHTML()` function

Answer: C) Using the `querySelector()` method

43. How do you change the content of an HTML element using JavaScript?

- A) By setting the `content` property
- B) By using the `change()` method
- C) By accessing the `innerHTML` property
- D) By using the `replaceWith()` method

Answer: C) By accessing the `innerHTML` property

44. How do you add a new HTML element using JavaScript?

- A) By using the `create()` method
- B) By using the `add()` method
- C) By using the `append()` method
- D) By using the `insert()` method

Answer: C) By using the `append()` method

45. How do you handle events in JavaScript?

- A) By using the `event()` method
- B) By using the `handleEvent()` function
- C) By adding event listeners to HTML elements
- D) By using the `executeEvent()` function

Answer: C) By adding event listeners to HTML elements

Asynchronous Programming:

46. What is asynchronous programming in JavaScript?

- A) A type of loop
- B) A way to write synchronous code
- C) A programming paradigm that allows multiple tasks to be executed concurrently
- D) A way to define functions

Answer: C) A programming paradigm that allows multiple tasks to be executed concurrently

47. What are callbacks in JavaScript?

- A) A way to define functions
- B) A way to handle errors
- C) Functions that are executed automatically
- D) Functions that are passed as arguments to other functions and executed later

Answer: D) Functions that are passed as arguments to other functions and executed later

48. What is a Promise in JavaScript?

- A) A built-in function
- B) A type of loop
- C) An object representing the eventual completion or failure of an asynchronous operation
- D) A way to define classes

Answer: C) An object representing the eventual completion or failure of an asynchronous operation

49. What does the `then()` method do in a Promise?

- A) It catches exceptions
- B) It specifies what to do when a Promise is resolved
- C) It defines a default value for a Promise
- D) It defines a timeout for a Promise

Answer: B) It specifies what to do when a Promise is resolved

50. What is the purpose of the `await` keyword in JavaScript?

- A) To create asynchronous functions
- B) To pause execution until a Promise is resolved or rejected
- C) To define callbacks
- D) To define asynchronous events

Answer: B) To pause execution until a Promise is resolved or rejected

Modules and ES6 Features:

51. What are ES6 modules in JavaScript?

- A) A way to define variables
- B) A way to define classes
- C) A way to organize and encapsulate code into separate files
- D) A way to create asynchronous functions

Answer: C) A way to organize and encapsulate code into separate files

52. How do you export and import modules in JavaScript?

- A) Using the `export` and `import` keywords
- B) Using the `export()` and `import()` functions
- C) Using the `export()` and `require()` functions
- D) Using the `include` and `import` keywords

Answer: A) Using the export and import keywords

53. What is the purpose of the `default` keyword when exporting and importing modules?

- A) To specify the default behavior of a module
- B) To mark a module as the main module
- C) To specify the default export of a module
- D) To indicate that a module is optional

Answer: C) To specify the default export of a module

54. What are arrow functions in JavaScript?

- A) A way to define asynchronous functions
- B) A concise way to define functions with a shorter syntax
- C) A way to define functions with multiple parameters
- D) A way to define generator functions

Answer: B) A concise way to define functions with a shorter syntax

55. What is destructuring assignment in ES6?

- A) A way to assign values to variables using the `assign` keyword
- B) A way to destructure objects into multiple variables
- C) A way to define default values for function parameters
- D) A way to create shallow copies of objects

Answer: B) A way to destructure objects into multiple variables

Additional JavaScript Concepts:

56. What is the purpose of the `let` and `const` keywords in ES6?

- A) To define block-scoped variables
- B) To define global variables
- C) To define function-scoped variables
- D) To define asynchronous variables

Answer: A) To define block-scoped variables

57. What is the spread operator (...) used for in JavaScript?

- A) To create shallow copies of arrays and objects
- B) To merge arrays and objects
- C) To clone functions
- D) To define default values for function parameters

Answer: A) To create shallow copies of arrays and objects

58. What is the rest parameter (...) in JavaScript?

- A) A way to define default values for function parameters
- B) A way to create shallow copies of arrays and objects
- C) A way to collect multiple arguments into a single array-like parameter
- D) A way to define asynchronous functions

Answer: C) A way to collect multiple arguments into a single array-like parameter

59. What are template literals in ES6?

- A) A way to define multi-line strings
- B) A way to define functions with multiple parameters
- C) A way to define classes
- D) A way to create asynchronous functions

Answer: A) A way to define multi-line strings

60. What is the `class` syntax in ES6 used for?

- A) To create asynchronous functions
- B) To define functions with multiple parameters
- C) To define classes and constructor functions for object-oriented programming
- D) To define generator functions

Answer: C) To define classes and constructor functions for object-oriented programming

JavaScript Fundamentals:

61. What does the `typeof` operator return when applied to a variable that is not defined?

- A) `"undefined"`
- B) `"null"`
- C) `"not defined"`
- D) `SyntaxError`

Answer: A) "undefined"

62. Which of the following statements about JavaScript is true?

- A) JavaScript is a statically typed language.
- B) JavaScript is a compiled language.
- C) JavaScript is a single-threaded language.
- D) JavaScript is a strongly typed language.

Answer: C) JavaScript is a single-threaded language.

63. How do you comment a single line of code in JavaScript?

- A) `// Comment here`
- B) `<!-- Comment here -->`

- C) `/* Comment here */`
- D) `-- Comment here`

Answer: A) `// Comment here`

64. Which operator is used for strict equality (both value and type) in JavaScript?

- A) `==`
- B) `===`
- C) `=`
- D) `!==`

Answer: B) `===`

65. What is the result of the expression `5 + true` in JavaScript?

- A) `6`
- B) `true`
- C) `5true`
- D) Error

Answer: A) `6`

Functions and Scopes:

66. What is a closure in JavaScript?

- A) A built-in JavaScript function
- B) A function with no parameters
- C) A function that has access to its parent function's scope
- D) A loop in JavaScript

Answer: C) A function that has access to its parent function's scope

67. How do you define a function expression in JavaScript?

- A) `function myFunction() { }`
- B) `let myFunction = function() { }`
- C) `myFunction() { }`
- D) `function = myFunction() { }`

Answer: B) `let myFunction = function() { }`

68. What is the scope of a variable declared using `let` in JavaScript?

- A) Function scope
- B) Block scope
- C) Global scope
- D) Lexical scope

Answer: B) Block scope

69. What is the difference between function declarations and function expressions in JavaScript?

- A) Function declarations are hoisted, while function expressions are not.
- B) Function expressions are hoisted, while function declarations are not.
- C) There is no difference; they can be used interchangeably.
- D) Function declarations are used for asynchronous code, while function expressions are used for synchronous code.

Answer: A) Function declarations are hoisted, while function expressions are not.

70. What is the value of `this` in the global scope in JavaScript?

- A) The current function
- B) The global object (e.g., `window` in a browser)
- C) The parent function
- D) `undefined`

Answer: B) The global object (e.g., `window` in a browser)

Arrays and Objects:

71. How do you access the length of an array in JavaScript?

- A) `array.size`
- B) `array.length`
- C) `array.count`
- D) `array.size()`

Answer: B) `array.length`

72. What is the result of the expression `["apple", "banana"] + ["cherry", "date"]` in JavaScript?

- A) `["apple", "banana", "cherry", "date"]`
- B) `"applebananacherrydate"`
- C) `NaN`
- D) Error

Answer: B) `"applebananacherrydate"`

73. How do you add an element to the beginning of an array in JavaScript?

- A) Using the `prepend()` method
- B) Using the `shift()` method
- C) Using the `unshift()` method
- D) Using the `insert()` method

Answer: C) Using the `unshift()` method

74. What method is used to remove the first element from an array in JavaScript?

- A) `removeFirst()`
- B) `shift()`
- C) `pop()`

- D) `deleteFirst()`

Answer: B) `shift()`

75. How do you check if an object has a specific property in JavaScript?

- A) Using the `property()` method
- B) Using the `hasProperty()` method
- C) Using the `propertyExists()` function
- D) Using the `hasOwnProperty()` method

Answer: D) Using the `hasOwnProperty()` method

Objects and Prototypes:

76. What is the difference between an object's prototype and its prototype chain in JavaScript?

- A) They are the same thing.
- B) The prototype is an internal reference to its parent object, and the prototype chain is the chain of objects linked by their prototypes.
- C) The prototype chain is an internal reference to its parent object, and the prototype is the chain of objects linked by their prototypes.
- D) Neither the prototype nor the prototype chain exists in JavaScript.

Answer: B) The prototype is an internal reference to its parent object, and the prototype chain is the chain of objects linked by their prototypes.

77. What is the purpose of the `Object.create()` method in JavaScript?

- A) To create a new object with a specified prototype object
- B) To create a new object with no prototype
- C) To create a new object with default values
- D) To create a new object with a specified constructor function

Answer: A) To create a new object with a specified prototype object

78. How do you add a method to an object's prototype in JavaScript?

- A) By using the `Object.method()` syntax
- B) By defining a method directly in the object
- C) By using the `prototype.method = function()` syntax
- D) By using the `method.prototype` syntax

Answer: C) By using the `prototype.method = function()` syntax

79. What is the prototype of an object created using the `Object.create(null)` method?

- A) `Object.prototype`
- B) `null`
- C) `undefined`
- D) `Object`

Answer: B) null

80. What is the purpose of the `Object.setPrototypeOf()` method in JavaScript?

- A) To remove the prototype of an object
- B) To set the prototype of an object to `null`
- C) To change the prototype of an existing object
- D) To set the prototype of an object to `Object.prototype`

Answer: C) To change the prototype of an existing object

Error Handling and Debugging:

81. What is the purpose of the `try...catch` statement in JavaScript?

- A) To create custom errors
- B) To define functions
- C) To handle exceptions and prevent program crashes
- D) To create new objects

Answer: C) To handle exceptions and prevent program crashes

82. What is the role of the `throw` statement in JavaScript?

- A) To catch exceptions
- B) To create custom errors
- C) To define functions
- D) To define asynchronous events

Answer: B) To create custom errors

83. What is the `Error` object in JavaScript used for?

- A) To execute code
- B) To create custom errors
- C) To define functions
- D) To access the global scope

Answer: B) To create custom errors

84. What does the `finally` block in a `try...catch...finally` statement do?

- A) It specifies the type of exception to catch.
- B) It specifies the catch block to execute.
- C) It specifies code that should be executed regardless of whether an exception is thrown or caught.
- D) It specifies the try block to execute.

Answer: C) It specifies code that should be executed regardless of whether an exception is thrown or caught.

85. What is the difference between a runtime error and a syntax error in JavaScript?

- A) There is no difference; they are the same.

- B) A runtime error occurs when code is executed, while a syntax error occurs during code parsing.
- C) A syntax error occurs when code is executed, while a runtime error occurs during code parsing.
- D) A syntax error occurs when code is executed and crashes the program.

Answer: B) A runtime error occurs when code is executed, while a syntax error occurs during code parsing.

Document Object Model (DOM):

86. What does the Document Object Model (DOM) represent in web development?

- A) The structure of a web page as an object hierarchy
- B) A programming language
- C) A database
- D) A server

Answer: A) The structure of a web page as an object hierarchy

87. How do you select all elements with a specific class name in JavaScript?

- A) `getElementByClass()`
- B) `querySelectorAll()`
- C) `getElementsByClassName()`
- D) `selectElementsByClass()`

Answer: C) `getElementsByClassName()`

88. What is the purpose of the `innerHTML` property in JavaScript?

- A) To access an element's class name
- B) To set or retrieve the HTML content of an element
- C) To add a new element to the DOM
- D) To remove an element from the DOM

Answer: B) To set or retrieve the HTML content of an element

89. How do you create a new HTML element using JavaScript?

- A) `createNode()`
- B) `createElement()`
- C) `addNode()`
- D) `insertElement()`

Answer: B) `createElement()`

90. What is event delegation in JavaScript?

- A) A way to delegate events to external libraries
- B) A way to handle events directly in the HTML
- C) A way to bind multiple events to the same element
- D) A way to handle events at a higher level in the DOM hierarchy

Answer: D) A way to handle events at a higher level in the DOM hierarchy

Asynchronous Programming:

91. What is asynchronous code in JavaScript?

- A) Code that runs in a single thread
- B) Code that is executed sequentially
- C) Code that can run concurrently with other code
- D) Code that uses the `await` keyword

Answer: C) Code that can run concurrently with other code

92. What is a callback function in JavaScript?

- A) A function that is executed automatically
- B) A function that is used for math calculations
- C) A function that is passed as an argument to another function and executed later
- D) A function that is used for error handling

Answer: C) A function that is passed as an argument to another function and executed later

93. What is a Promise in JavaScript?

- A) A built-in function
- B) A way to define asynchronous functions
- C) An object representing the eventual completion or failure of an asynchronous operation
- D) A type of loop

Answer: C) An object representing the eventual completion or failure of an asynchronous operation

94. What does the `then()` method do in a Promise?

- A) It catches exceptions
- B) It specifies what to do when a Promise is resolved
- C) It defines a timeout for a Promise
- D) It defines a default value for a Promise

Answer: B) It specifies what to do when a Promise is resolved

95. What is the purpose of the `async` and `await` keywords in JavaScript?

- A) To create synchronous code
- B) To define callbacks
- C) To handle errors
- D) To simplify asynchronous code and make it appear more like synchronous code

Answer: D) To simplify asynchronous code and make it appear more like synchronous code

Modules and ES6 Features:

96. What are ES6 modules in JavaScript?

- A) A way to define variables
- B) A way to define classes
- C) A way to organize and encapsulate code into separate files
- D) A way to create asynchronous functions

Answer: C) A way to organize and encapsulate code into separate files

97. How do you export and import modules in JavaScript?

- A) Using the `export` and `import` keywords
- B) Using the `export()` and `import()` functions
- C) Using the `export()` and `require()` functions
- D) Using the `include` and `import` keywords

Answer: A) Using the `export` and `import` keywords

98. What is the purpose of the `default` keyword when exporting and importing modules?

- A) To specify the default behavior of a module
- B) To mark a module as the main module
- C) To specify the default export of a module
- D) To indicate that a module is optional

Answer: C) To specify the default export of a module

99. What are arrow functions in JavaScript?

- A) A way to define asynchronous functions
- B) A concise way to define functions with a shorter syntax
- C) A way to define functions with multiple parameters
- D) A way to define generator functions

Answer: B) A concise way to define functions with a shorter syntax

100. What is destructuring assignment in ES6?

- A) A way to assign values to variables using the `assign` keyword
- B) A way to destructure objects into multiple variables
- C) A way to define default values for function parameters
- D) A way to create shallow copies of objects

These are the remaining 40 multiple-choice questions (MCQs) on JavaScript along with their answers. If you have any more questions or need further clarification on any topic, feel free to ask!