1.	console.log(1 + "1" - 1);
	A. "10"
	B. 10
	C. "11"
	D. 11
	Answer: B
2.	typeof NaN returns:
	A. "number"
	B. "undefined"
	C. "string"
	D. "NaN"
	Answer: A
3.	Removes the last array element:
	A. shift()
	B. pop()
	C. splice()
	D. slice()
	Answer: B
4.	let a = [1,2]; let b = [1,2]; console.log(a == b);
	A. true
	B. false
	C. Error
	D. undefined
	Answer: B

- 5. $setTimeout(() \Rightarrow \{\}, 0)$ executes:
 - A. Immediately
 - B. After the call stack is empty
 - C. Never
 - D. After 1 second

- 6. A closure is:
 - A. A function + its lexical environment
 - B. An array method
 - C. A data type
 - D. A module import

Answer: A

- 7. console.log(!!0);
 - A. true
 - B. false
 - C. o
 - D. undefined

Answer: B

- 8. Correct null check:
 - A. typeof variable === "null"
 - B. variable === null
 - C. variable == null
 - D. Both B and C

Answer: D

- 9. "use strict"; prevents:
 - A. Undeclared variables
 - B. Type coercion

- C. Async functions D. Hoisting Answer: A 10. Creates a new modified array: A. forEach() B. map() C. filter() D. reduce() **Answer: B** 11. console.log(typeof []); A. "array"
- - B. "object"
 - C. "undefined"
 - D. "null"

- 12. let x = 10; function foo() { console.log(x); let x = 20; } foo();
 - A. 10
 - B. 20
 - C. ReferenceError
 - D. undefined

Answer: C

- 13. Immediately Invoked Function Expression (IIFE) is:
 - A. A function that runs instantly
 - B. A callback function
 - C. An arrow function
 - D. A generator

Answer: A

```
14. console.log("5" - 3);
    A. 2
    B. "2"
    C. 53
    D. "53"
    Answer: A
15. const obj = { a:1}; Object.freeze(obj); obj.a=2; console.log(obj.a);
    A. 1
    B. 2
    C. Error
    D. undefined
    Answer: A
16. console.log(0.1 + 0.2 === 0.3);
    A. true
    B. false
    C. TypeError
    D. undefined
    Answer: B
17. const arr = [10, 12, 15, 21]; for (var i = 0; i < arr.length; i++) { setTimeout(() \Rightarrow console.log(i), 0); }
    A. 0,1,2,3
    B. 4,4,4,4
    C. undefined, undefined, undefined
    D. 10,12,15,21
    Answer: B
18. String.prototype is used for:
    A. Adding methods to strings
    B. Converting numbers to strings
```

```
C. String comparison
```

D. Encoding strings

Answer: A

```
19. console.log(3 > 2 > 1);
```

- A. true
- B. false
- C. undefined
- D. Error

Answer: B

```
20. const { a } = { a: 1, b: 2 }; console.log(a);
```

- A. 1
- B. { a:1 }
- C. undefined
- D. Error

Answer: A

21. Promise.reject().catch(() ⇒ 1).then(console.log);

- A. 1
- B. undefined
- C. Error
- D. null

Answer: A

22. const sym = Symbol('key'); const obj = { [sym]: 'value' }; console.log(obj[sym]);

- A. 'value'
- B. undefined
- C. Error
- D. Symbol('key')

Answer: A

```
23. console.log(new Date(2023, 1, 30).getMonth());
    A. 1
    B. 2
    C. 30
    D. 0
    Answer: A
24. console.log(parseInt("7em"));
    A. 7
    B. "7em"
    C. NaN
    D. 0
    Answer: A
25. const fn = () \Rightarrow arguments.length; console.log(fn(1,2));
    A. 2
    B. 0
    C. ReferenceError
    D. undefined
    Answer: C
26. console.log("hello".padStart(10, "123"));
    A. "123123hello"
    B. "12312hello"
    C. "hello12312"
    D. "hello"
    Answer: B
27. console.log(typeof function* () {});
    A. "function"
    B. "generator"
```

```
C. "object"
    D. "undefined"
    Answer: A
28. const arr = [1,2]; arr.length = 0; console.log(arr[0]);
    A. 1
    B. undefined
    C. 0
    D. Error
    Answer: B
29. console.log(+"Infinity");
    A. Infinity
    B. "Infinity"
    C. NaN
    D. TypeError
    Answer: A
30. const obj = { a:1}; console.log(JSON.stringify(obj, ['a']));
    A. {"a":1}
```

B. {}

C. "a"

D. Error

Answer: A

31. What is the output?

javascript

```
console.log(1 + "1" - 1);
```

A. "10"

B. 10

```
C. "11"
```

D. 11

Answer: B

32. What does typeof NaN return?

- A. "number"
- B. "undefined"
- C. "string"
- D. "NaN"

Answer: A

33. Which method removes the last element of an array?

- A. shift()
- B. pop()
- C. splice()
- D. slice()

Answer: B

34. What is the output?

javascript

```
let a = [1, 2];
let b = [1, 2];
console.log(a == b);
```

- A. true
- B. false
- C. Error
- D. undefined

Answer: B

35. What does $setTimeout(() \Rightarrow \{\}, 0)$ do?

- A. Executes immediately
- B. Executes after the call stack is empty
- C. Never executes
- D. Executes after 1 second

36. What is closure in JavaScript?

- A. A function bundled with its lexical environment
- B. A built-in array method
- C. A data type
- D. A way to import modules

Answer: A

37. What is the output?

javascript

```
console.log(!!0);
```

- A. true
- B. false
- C. o
- D. undefined

Answer: B

38. How do you check for null?

- A. typeof variable === "null"
- B. variable === null
- C. variable == null
- D. Both B and C

Answer: D

39. What does "use strict"; do?

- A. Enforces stricter type checking
- B. Enables modern JavaScript features
- C. Prevents undeclared variables
- D. Optimizes performance

Answer: C

40. Which method creates a new array with modified elements?

- A. forEach()
- B. map()
- C. filter()
- D. reduce()

Answer: B

41. What is Node.js primarily used for?

- A. Frontend development
- B. Server-side scripting
- C. Mobile apps
- D. Database management

Answer: B

42. Which module handles file operations?

- A. http
- B. fs
- C. path
- D. url

Answer: B

43. What does require('http') do?

- A. Imports an HTTP server module
- B. Fetches data from a URL
- C. Creates a frontend HTTP request

D. Encrypts HTTP traffic

Answer: A

44. What is npm?

- A. Node.js Package Manager
- B. New Project Manager
- C. Network Protocol Module
- D. Native Process Monitor

Answer: A

45. How do you start a Node.js server?

- A. node start server.js
- B. npm run server.js
- C. node server.js
- D. npm start server.js

Answer: C

46. Node.js is primarily used for:

- A. Frontend development
- B. Server-side scripting
- C. Mobile apps
- D. Database management

Answer: B

47. File operations module:

- A. http
- B. fs
- C. path
- D. url

Answer: B

48. require('http') imports:

- A. HTTP server module
- B. URL fetcher
- C. Frontend request tool
- D. Encryption module

Answer: A

- 49. npm stands for:
 - A. Node Package Manager
 - B. New Project Manager
 - C. Network Protocol Module
 - D. Native Process Monitor

Answer: A

- 50. Starting a Node.js server:
 - A. node start server.js
 - B. npm run server.js
 - C. node server.js
 - D. npm start server.js

Answer: C

- 51. __dirname returns:
 - A. Current filename
 - B. Current directory path
 - C. Node.js version
 - D. Environment variables

Answer: B

- 52. The events module uses:
 - A. Observer pattern
 - B. Singleton pattern
 - C. Factory pattern

D. MVC pattern

Answer: A

- 53. process.env accesses:
 - A. Command-line arguments
 - B. Environment variables
 - C. File system
 - D. Network interfaces

Answer: B

- 54. Middleware in Express.js:
 - A. Handles HTTP requests
 - B. Manages databases
 - C. Renders frontend views
 - D. Validates user input

Answer: A

- 55. **Buffer** class handles:
 - A. Binary data
 - B. JSON data
 - C. Environment variables
 - D. File paths

Answer: A

- 56. require() caches modules:
 - A. Per process
 - B. Per file
 - C. Per function
 - D. Never

Answer: A

57. setImmediate() VS setTimeout(() \Rightarrow {}, 0):

- A. setImmediate() runs first
- B. setTimeout() runs first
- C. Same execution order
- D. Random order

Answer: D (Order is environment-dependent)

- 58. cluster module enables:
 - A. Multi-threading
 - B. Child processes
 - C. HTTP/2 support
 - D. Database sharding

Answer: A

- 59. util.promisify() converts:
 - A. Callbacks → Promises
 - B. Promises → Callbacks
 - C. Sync → Async
 - D. Streams → Buffers

Answer: A

- 30. res.sendFile() in Express.js:
 - A. Sends a file as response
 - B. Uploads a file
 - C. Reads a file
 - D. Deletes a file

Answer: A

- 31. MongoDB stores data as:
 - A. Tables
 - B. JSON documents
 - C. CSV files

D. XML

Answer: B

32. Which command inserts a document?

- A. db.collection.insertOne()
- B. db.collection.add()
- C. db.collection.create()
- D. db.collection.save()

Answer: A

33. What is in MongoDB?

- A. A required unique identifier
- B. An optional field
- C. A foreign key
- D. A temporary placeholder

Answer: A

34. Which operator updates fields?

- A. \$push
- B. \$set
- C. \$update
- D. \$change

Answer: B

35. Which method finds documents?

- A. db.collection.search()
- B. db.collection.get()
- C. db.collection.find()
- D. db.collection.fetch()

Answer: C

36. MongoDB stores data as:

- A. Tables
- **B. JSON documents**
- C. CSV files
- D. XML

- 37. Inserts a document:
 - A. db.collection.insertOne()
 - B. db.collection.add()
 - C. db.collection.create()
 - D. db.collection.save()

Answer: A

- 38. id field is:
 - A. Required and unique
 - B. Optional
 - C. Foreign key
 - D. Temporary

Answer: A

- 39. Updates fields:
 - A. \$push
 - B. \$set
 - C. \$update
 - D. \$change

Answer: B

- 70. Finds documents:
 - A. db.collection.search()
 - B. db.collection.get()
 - C. db.collection.find()

D. db.collection.fetch()

Answer: C

- 71. **\$inc** operator:
 - A. Increments a value
 - B. Decrements a value
 - C. Inserts a field
 - D. Deletes a field

Answer: A

- 72. Indexes improve:
 - A. Query performance
 - B. Data storage size
 - C. Network latency
 - D. Security

Answer: A

- 73. Sharding:
 - A. Splits data across servers
 - B. Encrypts data
 - C. Compresses data
 - D. Backs up data

Answer: A

- 74. Aggregation \$group stage:
 - A. Groups documents by expression
 - B. Filters documents
 - C. Sorts documents
 - D. Limits documents

Answer: A

75. \$lookup performs:

- A. Left outer join
- B. Inner join
- C. Cross join
- D. Union

Answer: A

- 76. TTL index:
 - A. Auto-deletes documents after time
 - B. Times query execution
 - C. Tracks login sessions
 - D. Limits collection size

Answer: A

- 77. { name: { \$regex: /^J/ } } finds:
 - A. Names starting with "J"
 - B. Names ending with "J"
 - C. Names containing "J"
 - D. Case-insensitive "J"

Answer: A

- 78. Atomic operations:
 - A. Guarantee no partial updates
 - B. Run in parallel
 - C. Are slow
 - D. Require sharding

Answer: A

- 79. MongoDB is a:
 - A. Relational DB
 - B. NoSQL DB
 - C. Graph DB

D. Columnar DB

Answer: B

- 30. db.collection.deleteMany({}) deletes:
 - A. All documents
 - B. First document
 - C. Indexes
 - D. Collection

Answer: A

- 31. Creates a state variable:
 - A. let state = useState(0);
 - B. const [count, setCount] = useState(0);
 - C. state = createState(0);
 - D. this.state = { count: 0 };

Answer: B

- 32. JSX is:
 - A. A JavaScript testing framework
 - B. Syntax extension for JavaScript
 - C. State management library
 - D. Build tool

Answer: B

- 33. Passes data to child components:
 - A. state
 - B. props
 - C. context
 - D. refs

Answer: B

34. useEffect purpose:

- A. Manage state
- B. Perform side effects
- C. Create reusable logic
- D. Handle routing

- 35. Replaces componentDidMount:
 - A. useState
 - B. useEffect With []
 - C. useContext
 - D. useReducer

Answer: B

- 36. key prop is used for:
 - A. Identifying elements uniquely
 - B. Styling components
 - C. Passing data
 - D. Handling events

Answer: A

- 37. Controlled component:
 - A. Manages state via React
 - B. Manages its own state
 - C. Cannot receive props
 - D. Is a class component

Answer: A

- 38. useMemo memoizes:
 - A. Computed values
 - B. Components
 - C. API calls

	D. Event handlers
	Answer: A
2.0	
39.	React Router uses:
	A. BrowserRouter
	B. RouteController
	C. Navigation
	D. LinkRedirect
	Answer: A
9 0.	useRef primarily accesses:
	A. DOM elements
	B. State variables
	C. Props
	D. Context
	Answer: A
91.	Higher-Order Component (HOC):
	A. Function that takes a component and returns a new component
	B. Base class for all components
	C. Hook for state management
	D. Router component
	Answer: A
92.	useContext requires:
	A. React.createContext()
	B. React.Provider

33. Server-Side Rendering (SSR) improves:

C. Both A and B

D. useReducer

Answer: C

- A. SEO and initial load time
- B. Runtime performance
- C. Bundle size
- D. State management

Answer: A

- 94. React.lazy() enables:
 - A. Code-splitting
 - B. State updates
 - C. Error boundaries
 - D. Prop validation

Answer: A

- 95. **children** prop contains:
 - A. Content between component tags
 - B. Child components only
 - C. State values
 - D. Event handlers

Answer: A

96. How do you create a state variable?

- A. let state = useState(0);
- B. const [count, setCount] = useState(0);
- C. state = createState(0);
- D. this.state = { count: 0 };

Answer: B

97. What is JSX?

- A. A JavaScript testing framework
- B. A syntax extension for JavaScript
- C. A state management library

	D. A build tool
	Answer: B
98.	How do you pass data to a child component?
	A. Using state
	B. Using props
	C. Using context
	D. Using refs
	Answer: B
9 9.	What is the purpose of useEffect?
	A. To manage state
	B. To perform side effects
	C. To create reusable logic
	D. To handle routing
	Answer: B
00.	Which hook replaces componentDidMount?
	A. useState
	B. useEffect with empty dependency array
	C. useContext
	D. useReducer
	Answer: B
01.	Which tag defines a hyperlink?
	A. <link/>
	B. <a>
	C. <href></href>

D. <url>

02. What is the correct structure?

```
A. <html><head></head><body></body></html>
```

Answer: A

D3. Which attribute makes an input field required?

```
A. mandatory="true"
```

Answer: C

04. Defines a hyperlink:

```
A. <link>
```

Answer: B

35. Correct HTML structure:

```
A. <html><head></head><body></body></html>
```

```
B. <head><html></html><body></body></head>
```

Answer: A

36. Required input field attribute:

```
A. mandatory="true"
```

C. required

D. mustfill

Answer: C

7. alt attribute

07. alt attribute in is for:

A. Alternative text

B. Image alignment

C. Source URL

D. Image dimensions

Answer: A

38. Semantic element for navigation:

A. <div>

B.

C. <nav>

D. <header>

Answer: C

)9. Self-closing tag:

A. <div></div>

B. <br

C.

D. <a>

Answer: B

10. defer attribute in <script>:

A. Delays script execution

B. Runs script after HTML parsing

C. Runs script immediately

D. Disables script

Answer: B

11. datalist element creates:

A. A dropdown input menu
B. A table
C. A list of links

D. A form Answer: A

12. contenteditable attribute:

- A. Makes element editable
- B. Hides content
- C. Validates input
- D. Encodes content

Answer: A

- 13. Selects id="header":
 - A. #header
 - B. .header
 - C. *header
 - D. header

Answer: A

- 14. Changes text color:
 - A. text-style
 - B. font-color
 - C. color
 - D. text-color

Answer: C

- 15. position: absolute positions relative to:
 - A. Nearest positioned ancestor
 - B. Document body
 - C. Parent element

	D. Viewport
	Answer: A
16.	Flexbox property for horizontal alignment:
	A. align-items
	B. justify-content
	C. flex-direction
	D. flex-wrap
	Answer: B
17.	z-index Controls:
	A. Stacking order
	B. Element width
	C. Animation duration
	D. Color depth
	Answer: A
18.	@media queries enable:
	A. Responsive design
	B. Animation keyframes
	C. Variable definitions
	D. Font imports
	Answer: A
19.	How do you select an element with id="header"?
	A. #header
	Bheader
	C. *header
	D. header
	Answer: A

20. Which property changes text color?

- A. text-style
- B. font-color
- C. color
- D. text-color

Answer: C