Ans 1 –

1 JavaScript helps the users to build modern web applications to interact directly without reloading the page every time. JavaScript is commonly used to dynamically modify HTML and CSS to update a user interface by the DOM API. It is mainly used in web applications.

2 The React Native is the widely used JavaScript framework for creating mobile applications. Using React Native, we can build mobile applications for different operating systems.

3 A large number of web applications have a server-side to them. JavaScript is used to generate content and handle HTTP requests. JavaScript can also run on servers through Node.js. The Node.js provides an environment containing the necessary tools required for JavaScript to run on servers.

Ans 2-

Client-side development is a type of development that involves programs that run on a client or user's device. Client-side developers focus on creating the part of a website that the user can interact with. Sometimes, client-side development is also referred to as front-end development, as it focuses on the "front" part of an application that users can see. Client-side developers complete a variety of tasks, including:

- Creating website layouts
- Designing user interfaces
- Adding form validation
- Adding visual elements like colors and fonts

Server-side development is a type of development that involves programs that run on a server. Server-side developers focus on

behind-the-scenes development, and server-side development is also referred to as "back-end" development. This type of programming is important because web browsers, or clients, interact with web servers to retrieve information. Common server-side tasks include:

- Coding dynamic websites
- Developing web applications
- Connecting websites to databases

Ans 3-

Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser. Node.js lets developers use JavaScript to write command line tools and for server-side scripting—running scripts server-side to produce dynamic web page content before the page is sent to the user's web browser.

Ans 4-

JavaScript has 3 types of scope:

- Block scope
- Function scope
- Global scope

- Variables declared inside a { } block cannot be accessed from outside the block:
- {
     let x = 2;

```
    }
    // x can NOT be used here
```
- ```
  {
    var x = 2;
  }
  // x CAN be used here
  ```

Function Scope

JavaScript has function scope: Each function creates a new scope.

Variables defined inside a function are not accessible (visible) from outside the function.

Global JavaScript Variables

A variable declared outside a function, becomes GLOBAL

Ans 5-

JavaScript is a mix of both, synchronous and asynchronous. JavaScript is synchronous and single-threaded. It can only be asynchronous when functions require features like Ajax since the response isn't immediate. It all depends on what you're doing and what yields the best workflow result.

Ans 6-

 JavaScript is a single threaded which means only one statement is executed at a time.

Ans 7

Using DOM, the JavaScript gets access to HTML as well as CSS of the web page and can also add behavior to the HTML elements. so basically Document Object Model is an API that represents and interacts with HTML or XML documents.