



## DAYANANDA SAGAR COLLEGE OF ENGINEERING

*(An Autonomous Institute Affiliated to VTU, Belagavi, Accredited by NAAC with 'A' Grade)*

Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru-560111

### Department of Information Science and Engineering

#### Question Bank

Course: **FULL STACK DEVELOPMENT** Course Code: **22IS62** Semester: **VI**

1. Explain the concept of Java Script (JS) in Web Development. Discuss the History and Uses of JS.
2. Explain the concept of variables declaration. Compare all different types of variable declaration with syntax
3. Differentiate between Java Script and JQuery. Provide examples for each type and explain the technologies commonly used to build them.
4. Explain the importance of Model View Control (MVC) in Web Development. Describe very popularly used MVC frame work
5. Given an array of objects, where each object represents a student with properties like Usn no, Name (string) and Grade (number). Develop a JavaScript function range of Students that takes this array and returns a new array containing count of students who have a grade of 0-20,21-30,31-40,41-50  
  

```
const students = [  
    { usnno: 1BS23023, name: 'swachha', grade: 45},  
    { usnno: 1BS23028, name: 'garathi', grade: 36 },  
    { usnno: 1BS23024, name: 'racket', grade: 42 },  
    { usnno: 1BS23025, name: 'savya', grade: 35 },  
    { usnno: 1BS23026, name: 'pacchi', grade: 25 },  
    { usnno: 1BS23029, name: 'gathi', grade: 22 },  
    { usnno: 1BS23030, name: 'vidhi', grade: 20 },  
];
```
6. Illustrate with distinct code examples how you would use at least three different types of jQuery selectors to target and identify specific HTML elements within a web page. For each example, clearly describe which elements would be selected.
7. Demonstrate your understanding of Array Destructuring, Object Destructuring, and Parameter Destructuring in JavaScript by writing three distinct code snippets
8. Write a JS code snippet to explain how Arrays are created. Explain the purpose of the Array along with its different types of representation.
9. Discuss the importance of JS Prototype and Prototype Inheritance in web design. Provide examples of commonly used properties.

10. Create an HTML document for a blog post. The document should include: Control Flow and Variable Declaration.
11. Write a Java script to print numbers 1 to 100 in an array. If number is divisible by 3 print Bizz, if divisible 5 print Fizz. If divisible by both BizzFizz.
12. Describe Arrow, Hoisting, Callback function in detail.
13. Create an HTML document for a blog post. The document should include: JS Functions Callback Functions .
14. Analyse the Components of Back-End Development in JS and elaborate need and usage of Components of Back-End Development.
15. Analyse the concept of DOM Manipulation and elaborate on how DOM tree is constructed along with its Nodes.
16. Name and Explain, in your own words, the key difference between primitive and non primitive are represented in Java.
17. Describe the purpose and demonstrate with distinct examples how the string operations `lastIndexOf()`, `slice()`, and `substring()` can be used to extract or locate specific parts of a given text. Explain the key differences in their behavior and output.
18. Develop a Javascript program to check given number is Armstrong number (sum of cubes is equal to given number) or not.
19. Describe use of spread operator in arrays and object with an example
20. Design a modular JavaScript function, `validateRegistration`, that takes an object containing `username`, `password`, `confirmPassword`, and `email` as input properties. This function should:

Analyze the provided input to determine if each field meets the following criteria:

- Username: Not empty.
- Password: At least 6 characters long.
- Confirm Password: Matches the password field.
- Categorize any validation failures for each field.