

## Unit - 1

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### HTML

1. Describe any three HTML tags from following with simple example?  
i) head ii) body iii) form iv) table v) marquee
2. What is the difference between span and div tag in HTML5?
3. What are two types of Web Storage in HTML?
4. What do you mean by meta tags? Explain the use of meta tag with example.
5. What is the use of alternative text in image mapping?
6. How to embed audio and video tag in HTML5 explain with example?
7. How to specify the hyperlink in HTML and explain the target attribute.
8. What is HTML? Explain advantages of HTML. Explain Inline and block elements
9. Using HTML tags, write code to print the following output.

Sr. No	Name	City	Mobile no.	State Code	State
1	John	Delhi	1234567890	444112	Delhi
2	Nancy	Pune	2345678910	333777	Maharashtra

### CSS

10. What are the ways of inserting CSS in the HTML page? Explain with example.
11. example.
12. What is a style sheet? How to create a multi colour text on a web page using CSS?
13. What is the importance of CSS selectors? Where do you use them?
14. What are different types of CSS? Explain each with examples.

### BOOTSTRAP

15. Write Short note on Bootstrap? Write a program to demonstrate button styles (warning, danger, Default, Primary, link, success)?
16. Discuss why BOOTSTRAP is preferred for website development.
17. What are the key components of BOOTSTRAP?
18. How do you make images responsive?

### W3C

19. What is W3C? How W3C handles/Supports Web Technologies?

### Extra

20. How would you make your web pages load fast?
21. What is the advantage of collapsing white space?
22. What is the use of alternative text in image mapping?

## Unit - 2

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### JavaScript

23. Explain with an example how to access values of textboxes of form using JavaScript?
24. State Javascript data types with example. What do you mean by loose typing?
25. Explain Javascript callback function and arrow function with example.
26. What are the different data types available in Javascript? Explain the syntax of it.

27. Explain how to call JavaScript from an HTML page? Write a program to validate atleast one textfield for empty value?
28. How to include Javascript code in HTML. Explain in detail.
29. Design a form to accept workshop registration details from participants and validate any five fields using JavaScript? (Assume suitable structure)
30. Write an HTML Page and provide JavaScript for accepting userID and password from the user to ensure the input is not empty.
31. List and brief any five functions in JavaScript.
32. Write Javascript code to convert kilometers to miles.
33. How to create array in java script? Explain with example.

### **Advance JavaScript**

34. What is JSON file format and explain the usage of JSON
35. Which is better XML or JSON? Why?
36. Explain how to transform JSON text to a JavaScript object? Explain JSON Parser.
37. Explain data types supported by JSON? What is the role of JSON.stringify?

### **AJAX**

38. What is the purpose of AJAX? Explain with relevant example?
39. What is the use of XMLHttpRequest Object? Explain its use with the help of simple JavaScript Code.
40. Explain different applications without AJAX and with AJAX.

### **JQuery**

41. Write a program of your choice to demonstrate the use of DOM
42. Explain the following document object properties with proper syntax. Give one example.
  - i) document.getElementById()
  43. ii) document.getElementsByClassName()
  44. iii) document.getElementsByName()
45. When to use JQuery? What are the advantages of JQuery over JavaScript?
46. What is the difference between JavaScript and JQuery?
47. What is the purpose of DOM node tree? Draw a DOM node tree for a simple HTML page
48. What is the difference between ID and Class selector in JQuery?
49. What is the following jQuery instruction used for

- a) `$(document).ready(function(){ ..... });`      b) `$("#Element")`

38. What would happen if you would click the button from the code below?

```
<h1> Unit Test-1</h1>
<button id="wad">WAD</button>
<script>
    let button=document.getElementById("wad");
    $(button).click(function(){
    $("h1").css("color","red");
    $(this).hide();
    console.log($("#h1").text());
    }
</script>
```

## **Unit - 3**

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### **Front-End Frameworks**

50. What is web framework? Why web framework is important? What are web framework types?

### **MVC**

51. Draw and discuss MVC architecture in details.

52. Explain the MVC Application life cycle.

### **TypeScript**

53. Write short note on TypeScript

54. What is the advantage of TypeScript over JavaScript?

55. Explain the difference between Type inference and Type Annotations with examples.

56. Explain Variable and Constant declaration in TypeScript.

57. Explain with example how to export and import class in Typescript.

### **AngularVersion 10+**

58. What is Angular? List and explain various directives and components in Angular?

59. Create Simple Angular application to display “Hello, Input Name” using proper directive.

60. What is the difference between AngularJS and Angular? Draw a pictorial diagram of Angular architecture?

61. Explain different files that consist in angular component.

62. Explain Angular Module in detail..

63. Explain in brief about -i) Data Binding in Angular ii) Angular CLI iii)Dependency injection in Angular iv)Pipes in Angular v) Angular Router

### **ReactJS**

64. What is Node Package Manager or NPM?

## **Unit - 4**

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### **Node.JS**

1. What is Node.js? Enlist the features of Node.js
2. Explain any four methods of console object in node.js with suitable examples.
3. Explain the callbacks in node js with suitable example
4. State and explain any three built in modules in node.js
5. With necessary source code, explain how to use file I/O operations in node.js
6. Explain the concept of NPM
7. What is socket? Write a client server communication in node.js using socket programming
8. Write short note on PM2 microservices

### **ExpressJS**

1. Write a code using expressJs to illustrate the concept of routes.
2. What is template engine? How to create and use it using ExpressJS?
3. Write a short note on ExpressJS as middleware.
4. Write and explain simple application using REST HTTP method APIs in node.js
5. How to create and use cookies using node.js?

### **MongoDB**

1. What is NoSQL? What is the need for it. Enlist various features of NoSQL
2. List and explain various features of MongoDB.
3. List and explain various steps for MongoDB- node.js communication
4. Explain insertion and deletion database operation using Nodejs
5. Write a program to display the sorted data in the database using Nodejs
6. What is CRUD? Explain CRUD operations in node.js
7. List and explain the features of advanced MongoDB
8. What is replication? Enlist the advantages of replication in database system.

9. What is the purpose of MapReduce. Explain it with suitable example.
10. Explain the concept of sharding.

## Unit - 5

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### Mobile First

1. What is mobile first. What is mobile web
2. What is difference between website and web app.
3. What are the mobile devices? What is desktop device.

### JQuery Mobile

1. What is JQuery Mobile? Is JQuery Mobile Framework? If yes explain in brief.
2. What are the features of JQuery Mobile? What does mean by progressive enhancement in JQuery Mobile?
3. How to style the webpage in JQuery Mobile? What are the advantages and disadvantages of JQuery Mobile?
4. How to setup JQuery Mobile? What are the required files to start with JQuery Mobile. What is CDN and how it is powerful in web development.
5. What is difference between JQuery and JQuery Mobile?
6. What is JQuery architecture? What is “role” in JQuery Mobile. List all “roles” in JQuery Mobile. What is the attribute name to define role?
7. Write a code to create a page in JQuery Mobile. How to define header and footer in JQuery Mobile? Write a code to create a header and footer in JQuery mobile.
8. What is content. Write a code to create content div in JQuery Mobile. What is navigation?
9. Write a code to navigate from one page to another page in JQuery Mobile. What is dialog and when it is useful. Write a code to open dialog for user confirmation for book delete.
10. How to use icon in JQuery Mobile app. Write a code to use icon in button.
11. What are the transition types in JQuery Mobile? Write a code to make slideup transition in JQuery Mobile
12. How to theme web apps in JQuery Mobile? What are the widgets in JQuery Mobile? List any five widgets in JQuery Mobile.
13. Create a button in JQuery Mobile. Create a navbar in JQuery Mobile.
14. How to apply grid system in JQuery Mobile? What is class name for three column grids?
15. What is event and types of events Write a code for button click event.
16. Why web apps require forms and what are the types of forms?
17. Write a code to create a login form. List any five CSS classes for JQuery Mobile.

## Unit - 6

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### AWS Cloud

1. What is cloud computing? What are the benefits of cloud computing. What are the types of cloud computing?
2. What is AWS cloud? What are the services provided by AWS?
3. What is EC2 service? What are the EC2 types. List steps to create EC2 instance.
4. What is PuTTY? How to convert EC2 Instance with PuTTY.
5. What is ELB? What are the ELB types? How does ELB works? List advantages of ELB
6. What is VPC? List advantages of VPC. What are components of VPC?
7. What is AWS storage? What are the storage services provided by AWS? What are the types of cloud storage?

8. What is S3? What is EBS? What is s3 Bucket and how to create a bucket? What is an object in a bucket? List steps to deploy website in EC2.
9. How to update the Ubuntu server. What is apache2 and why do we need to install it on the server? What is the default location of website deployment in apache2?
10. What is the default port no for HTTP protocol. What is elastic beanstalk?
11. What are the advantages of elastic beanstalk. Difference between elastic beanstalk and EC2. List steps to deploy the application on elastic beanstalk.