t*Advanced Frontend Frameworks and Design*
Question Bank - End term

1. Explain the role of DNS, URL, and HTTP in web development.

2. Discuss the significance of IP addresses and internet protocols in establishing client-server communication.

3. List any four common Internet Protocols and briefly describe their function.

4. Explain the concept of the Document Object Model (DOM) in web development.

5. What is a CMS? Give two examples of popular CMS platforms.

6. Write HTML code to embed a video and an audio file into a web page.

7. Explain the concept of pseudo-classes in CSS with examples.

8. What is CSS? List any three advantages of using CSS in web development.

9. Explain the difference between inline CSS, internal CSS, and external CSS with examples.

10. Explain the concept of a box model in CSS. Draw and label its components.

11. Write CSS to create a flex layout where three div's are placed side-by-side horizontally.

12. Differentiate between transitions and transforms in CSS with simple examples.

13. What is Bootstrap Grid Layout? Briefly explain its importance.

14. Explain the purpose of wireframing in web design and its connection to Bootstrap.

15. Discuss JavaScript event handling with examples. How does the this keyword behave in event handlers? ** This code ** after mcqs below docs DONE

16. What is the purpose of cookies in JavaScript? How are cookies set and retrieved?

17. Compare Props and State in React. Demonstrate their usage with a relevant example. ** props && state code** after MCQS - this code -.

18. What is Bootstrap Grid Layout? Briefly explain its importance.

19. What is Bootstrap? Mention two benefits of using Bootstrap in web development.

20. Discuss JavaScript event handling with examples. How does the this keyword behave in event handlers?

21. What is the purpose of cookies in JavaScript? How are cookies set and retrieved?

22. What are components in React? Differentiate between class and function components.

23. Mention any five built-in Angular directives and their uses.**code**

24. Why does MVC architecture matter in web development? Explain in context of AngularJS.

25. What are Glyphicons in Bootstrap? Provide two examples of their usage.

26. Differentiate between Bootstrap's container and container-fluid classes.

27. Write a JavaScript function that generates a random number between 1 and 100.

28. Write JavaScript code to handle the onmouseover and onmouseout events to change the color of a button.

29. Explain the difference between optimistic and pessimistic updates in React while updating data.

30. Compare Props and State in React. Provide examples where each would be used.

31. What is AngularJS? Mention any three key features.

33. Evaluate the use of CMS frameworks for building websites instead of coding from scratch. Mention advantages and limitations with examples.

🚀 MCQ Q1:

👨‍💻 **CSS ka ek concept hai jo elements ko side-by-side rakhne aur flexible layout banane ke liye use hota hai. Ye kya hai?**

- A) CSS Flexbox

- B) CSS Grid

- C) CSS Transition

- D) CSS Animation

✅ **Answer:** A) CSS Flexbox
📝 **Explanation:** Flexbox is used to create flexible, side-by-side layouts.

🚀 MCQ Q2:

🌐 **Bootstrap Grid Layout mein ek row kitne columns tak expand ho sakta hai?**

- A) 6 Columns

- B) 8 Columns

- C) 12 Columns

- D) 16 Columns

✅ **Answer:** C) 12 Columns
📝 **Explanation:** Bootstrap uses a 12-column grid system for flexible layouts.

🚀 MCQ Q3:

🤖 **CSS Transition ka main role kya hai?**

- A) Element ko ghumana (rotate)

- B) Element ki color change karna smoothly

- C) Element ko directly move karna

- D) Element ko hidden karna

✅ **Answer:** B) Element ki color change karna smoothly
📝 **Explanation:** CSS Transitions provide smooth state changes (like color change).

🚀 MCQ Q4:

🚀 **Transition kaun se property ke bina kaam nahi karta?**

- A) transition-delay

- B) transition-duration

- C) transition-timing-function

- D) transform

✅ **Answer:** B) transition-duration
📝 **Explanation:** Duration (time) is necessary for a transition to work.

🚀 MCQ Q5:

📱 **Flexbox layout mein vertically align karne ke liye kaunsi property use karte hain?**

- A) justify-content

- B) align-items

- C) flex-direction

- D) flex-wrap

✅ **Answer:** B) align-items
📝 **Explanation:** `align-items` aligns items vertically in a flex container.

🚀 MCQ Q6:

🌐 **Flipkart product images par zoom hover effect ke liye kaunsa CSS concept use hota hai?**

- A) CSS Animation

- B) CSS Grid

- C) CSS Transform

- D) CSS Transition

✅ **Answer:** C) CSS Transform
📝 **Explanation:** Flipkart uses `transform: scale()` for product image zoom.

🚀 MCQ Q7:

⚡ **Bootstrap Grid Layout mein responsiveness kis concept se achieve hoti hai?**

- A) Media Queries

- B) Flexbox

- C) Breakpoints (xs, sm, md, lg, xl)

- D) Z-index

✅ **Answer:** C) Breakpoints (xs, sm, md, lg, xl)

1. **`xs`** – Extra small (phones)

2. **`sm`** – Small (tablets)

3. **`md`** – Medium (laptops)

4. **`lg`** – Large (desktops)

5. **`xl`** – Extra large (big screens)

📝 **Explanation:** Bootstrap uses predefined breakpoints for responsive design.

🚀 MCQ Q8:

🔧 **CSS Transform ka kaunsa type element ko 3D me ghumane ke liye use hota hai?**

- A) rotate()

- B) translateZ()

- C) scale()

- D) skew()

✅ **Answer:** B) translateZ()

📝 **Explanation:** `translateZ()` is used for 3D transformations.

🚀 MCQ Q9:

📊 **CSS Flexbox ke container me items ko wrap karne ke liye kaunsa property use hota hai?**

- A) align-items

- B) justify-content

- C) flex-wrap

- D) flex-grow

✅ **Answer:** C) flex-wrap

📝 **Explanation:** `flex-wrap` allows items to wrap in a flex container.

🚀 MCQ Q10:

🌐 **CSS Transform ka kaunsa function image ko size me badalne ke liye use hota hai?**

- A) rotate()

- B) skew()

- C) scale()

- D) translate()

✅ **Answer:** C) scale()

📝 **Explanation:** `scale()` is used to increase or decrease the size of an element.

🚀 MCQ Q11:

📌 **Bootstrap ke grid layout me columns ko directly center align karne ke liye kaunsa class use karte hain?**

- A) justify-content-center

- B) align-items-center

- C) d-flex

- D) text-center

✅ **Answer:** A) justify-content-center
📝 **Explanation:** `justify-content-center` centers columns in a Bootstrap row.

🚀 MCQ Q12:

🔍 **CSS Transition aur CSS Transform ko ek saath use karne se kya hota hai?**

- A) Animation smooth ho jati hai 🚀

- B) Animation ruk jati hai ❌

- C) Elements 3D me ho jate hai ✨

- D) Background color change ho jata hai 🎨

✅ **Answer:** A) Animation smooth ho jati hai 🚀
📝 **Explanation:** Transitions add smooth animation to transforms.

✅ **Liked these MCQs? Want me to create more in the same style from next 5-6 questions?** 🚀

Real-World Example: Event Handling in Facebook:

- **Facebook:** Clicking the "Like" button triggers a JavaScript event, updating the like count.

1. This

```
<button onclick="likePost(this)">👍 Like</button>
<script>
  function likePost(btn) {
    btn.innerText = "👍 Liked";
  }
</script>
```

2. This

```
<button onclick="showText(this)">Click Me</button>
<script>
  function showText(btn) {
    btn.innerText = "Clicked!";
  }
</script>
```