

Name: _____ Date: _____

Answer Key: Middle School Web System Architecture Quiz

How do developers balance structure, style, and logic? Use this formative assessment to evaluate student understanding of DOM interaction and front-end hierarchy.

1. A developer wants to ensure their website is accessible to screen readers by using semantic tags like <main>, <article>, and <section>. Which technology is being utilized for this structural hierarchy?

Answer: C) HTML5 Markup

HTML5 introduced semantic tags to provide meaning and structure to web content, which is essential for both SEO and accessibility tools like screen readers.

2. When a user clicks a 'Dark Mode' toggle and the background color immediately shifts, the logic controlling that real-time change is handled by ____.

Answer: B) JavaScript

JavaScript is the programming language of the web used to modify the Document Object Model (DOM) in response to user events, such as clicking a toggle.

3. True or False: CSS media queries allow a single HTML file to change its layout automatically based on the screen size of the device (responsive design).

Answer: A) True

Media queries are a core feature of CSS that detect screen dimensions and apply different styles, enabling websites to work on both mobile phones and desktops.

4. Analyze the following scenario: A website has text that is difficult to read because the font is too small and the colors clash. Which file should the developer edit to fix the visual contrast and typography?

Answer: C) styles.css

CSS (Cascading Style Sheets) is specifically designed to handle the presentation layer, including colors, fonts, spacing, and overall aesthetics.

5. In the context of web development, HTML is often compared to a building's blueprint or skeleton, whereas ____ is compared to the interior design and paint.

Answer: D) CSS

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This common analogy helps learners distinguish between structure (HTML) and presentation (CSS).

6. Which of these features would require a developer to write a JavaScript function rather than just using HTML and CSS?

Answer: B) Calculating the total cost of items in a shopping cart

Calculations and data processing require computational logic, which is the role of a scripting language like JavaScript.

7. True or False: JavaScript is only used to change text and cannot be used to hide or show HTML elements.

Answer: B) False

JavaScript can manipulate all parts of the DOM, including changing CSS display properties to hide or show elements dynamically.

8. If you view the source code of a web page and see text wrapped in <a> tags, what is the functional purpose of that specific structural element?

Answer: B) To create a hyperlink to another resource

The <a> (anchor) tag is the standard HTML element used to create links between different web pages or sections.

9. To change the spacing inside an element's border, a developer uses the CSS property called ____.

Answer: B) Padding

In the CSS Box Model, padding is the space between the content and the border, while margin is the space outside the border.

10. True or False: Without CSS, a web page would still show its text and images, but they would likely appear in a plain, vertical list with no custom layout.

Answer: A) True

HTML provides the raw content; without CSS, the browser applies 'User Agent Styles,' which default to a basic vertical flow of information.