

Name: _____ Date: _____

Answer Key: Architect of the Internet: High-Stakes Coding Quest for 5th Graders

Prove your architectural prowess by analyzing source code, evaluating stylesheet logic, and predicting script behavior in this advanced assessment.

1. Imagine you are building a 'Theme Park Simulation' webpage. You want the background color of the ride descriptions to change to 'gold' only when a visitor's mouse moves over the text. Which technology and property combination is required for this logic?

Answer: B) CSS using the :hover pseudo-class

The :hover pseudo-class in CSS is specifically designed to change the visual state of an element based on user interaction, such as a mouseover.

2. A developer writes: . If the image file fails to load, the user will see the ___ text instead.

Answer: C) Alternative

The 'alt' attribute stands for 'alternative text.' It provides a text description for screen readers or as a fallback if the image cannot be displayed.

3. True or False: JavaScript is considered the 'bones' or 'skeleton' of a website because it creates the physical layout of the page.

Answer: B) False

HTML is the 'skeleton' or structure; JavaScript is the 'brain' or behavior that allows the page to perform actions and calculations.

4. Analyze this scenario: You have a button that should calculate a student's grade when clicked. However, the button looks perfect but does nothing when pressed. Which layer of development is likely missing or broken?

Answer: C) The JavaScript logic

JavaScript handles functionality and interactivity. If an element exists and is styled but lacks action, the script is usually the issue.

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5. In the CSS rule 'p { font-size: 20px; }', the 'p' represents the ___, which tells the browser which HTML elements to style.

Answer: A) Selector

A CSS selector targets specific HTML tags or classes to apply styles to them.

6. True or False: If you delete all the CSS from a modern website, the text and links will still exist, but the layout and design will disappear.

Answer: A) True

HTML contains the raw content. Without CSS, the browser displays that content in a default vertical list without any specific design.

7. You are designing a website about the Solar System. Which HTML tag is most appropriate for the top-level main title of the entire site to ensure correct document hierarchy?

Answer: D) <h1>

The <h1> tag represents the most important heading on a page, establishing the top level of the content hierarchy.

8. To create an ordered list of instructions for a science experiment, a developer would use the ___ tag.

Answer: B)

 stands for 'ordered list,' which automatically numbers the items within it.

9. True or False: A website can send an alert message to a user even if no JavaScript has been written for that page.

Answer: B) False

Alerts and pop-up messages are behavioral features that require JavaScript to function.

10. Evaluation: A webpage has three buttons. You want only the middle button to be 'red'. What is the most efficient way to do this without changing the other two buttons?

Answer: B) Give the middle button a specific 'class' and style that class in CSS

Classes allow developers to style specific instances of an element differently than others of the same type.