Web Development 201 (WED201c) Practice Test (Sample)

Study Guide

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Questions

1. **In Bootstrap 3, when defined as , how many columns does the div occupy in a md viewport?**
   - **A. 3**
   - **B. 7**
   - **C. 10**
   - **D. 12**

2. **How much vertical space ("height") will this div use? div{ height: 50px; padding: 5px 10px; margin: 5px; border: 2px; }**
   - **A. 62px**
   - **B. 67px**
   - **C. 74px**
   - **D. 84px**

3. **Every valid web page can be represented as a tree. This tree is known as the?**
   - **A. A. API**
   - **B. B. JavaScript**
   - **C. C. DOM**
   - **D. D. HTML**

4. **In an xs viewport, how many columns wide is the div with class "col-sm-2 col-lg-4"?**
   - **A. 2**
   - **B. 4**
   - **C. 6**
   - **D. 12**

5. **Which of the following code segments will prevent users from being able to zoom in or out on your content?**
   - **A. <meta name='viewport' content='width=device-width, initial-scale=1, maximum-scale=1'>**
   - **B. <meta name='viewport' content='width=device-width, initial-scale=1'>**
   - **C. It is impossible to lock the zoom ability**
   - **D. <meta name='viewport' content='width=device-width, initial-scale=0.5'>**

6. Can the padding and margin properties be styled with unique colors?

A. False

B. True

7. What validation error will this code produce: <!DOCTYPE html><html lang="en"><head><meta charset="UTF-8"><title>Testing</title></head><body> <h2>Val me!</h2> </body></html>?

A. No p element in scope but a end tag seen.

B. No error.

C. Start tag seen without seeing a doctype first.

D. Unexpected end of document.

8. What does FTP stand for?

A. File Transfer Protocol

B. File Transmission Pipe

C. File To Push

9. Which property is used to change the font size in CSS?

A. font-style

B. text-size

C. font-size

D. size-font

10. If you have an element with the font size of 18px, and a child element inside with a font-size set to .5em, what is the font size of the child in px?

A. 0.9px

B. 9px

C. 90px

D. 900px

Answers

1. A
2. C
3. C
4. D
5. A
6. A
7. A
8. A
9. C
10. B

Explanations

1. In Bootstrap 3, when defined as , how many columns does the div occupy in a md viewport?

A. 3

B. 7

C. 10

D. 12

In Bootstrap 3, the grid system uses a 12-column layout, meaning the total width of a row is designed to be divided into 12 equal parts. The classes assigned to columns define how many of these parts a certain element will occupy at different viewport sizes. When you see the class "col-md-3," it indicates that this particular div will take up 3 out of the 12 available columns in the medium (md) viewport size. In this context, since md refers specifically to the medium viewport, the class col-md-3 directly determines the width of the div. Therefore, it occupies three columns of the grid layout when viewed in the medium viewport. The classes following the md designation do not apply to the medium size; they apply to larger screens. For the large (lg) viewport, the div would occupy 7 columns, but this does not influence the div's behavior in the medium viewport. The total number of columns used (like 3 in medium or 7 in large) cannot exceed the total of 12 at any time, but for medium viewports, the relevant class is col-md-3, confirming the div occupies 3 columns.

2. How much vertical space ("height") will this div use? div{ height: 50px; padding: 5px 10px; margin: 5px; border: 2px; }

A. 62px

B. 67px

C. 74px

D. 84px

To determine the total vertical space that the div will use, it is essential to consider several CSS properties that contribute to the box model, namely height, padding, margin, and border. Initially, the div has a specified height of 50 pixels. Next, we add the padding, which is given as 5 pixels for the top and bottom (since the padding values are stated as "5px 10px", this means 5 pixels for the top and bottom, and 10 pixels for the left and right). Therefore, the total padding applied to the vertical space is: - Top padding: 5px - Bottom padding: 5px That totals to 10 pixels of padding added to the height. Next, we consider the border, which is stated as "2px". A border of 2 pixels applies to both the top and bottom of the div: - Top border: 2px - Bottom border: 2px This adds another 4 pixels to the overall height. Additionally, the margin of 5 pixels applies to both the top and bottom as well: - Top margin: 5px - Bottom margin: 5px Again, this adds another 10 pixels to the overall

3. Every valid web page can be represented as a tree. This tree is known as the?

A. A. API

B. B. JavaScript

C. C. DOM

D. D. HTML

The correct answer is the Document Object Model (DOM). The DOM represents the structure of a web page in a hierarchical tree format, where each node in the tree corresponds to an element or a piece of content in the web page, such as HTML elements, attributes, and text. This tree structure allows programming languages, particularly JavaScript, to interact with and manipulate the elements on the page dynamically. For instance, when a web developer uses JavaScript to change the content of an HTML element or to create new elements, they are effectively navigating and modifying this tree structure. The accessibility of the DOM provides a framework through which developers can build rich, interactive web applications, making it an essential part of modern web development. Other choices do not correctly describe the structure of a web page. An API (Application Programming Interface) is a set of rules that allow different software entities to communicate with each other, while HTML (Hypertext Markup Language) is the markup language used for creating web pages, but it doesn't represent their tree structure. JavaScript is a programming language commonly used to manipulate the DOM, but it is not the model itself. Thus, the DOM is the accurate representation of a valid web page as a tree.

4. In an xs viewport, how many columns wide is the div with class "col-sm-2 col-lg-4"?

A. 2

B. 4

C. 6

D. 12

In a Bootstrap grid system, the layout is based on a 12-column structure by default. The class names attached to the div describe how the element should behave at various viewport sizes. In this case, "col-sm-2" applies to small viewports and indicates that this div will occupy 2 out of the 12 columns when the viewport size is small (≥576px). Meanwhile, the "col-lg-4" class applies to large viewports and indicates that the div will occupy 4 columns when the viewport is large (≥992px). However, for an extra small (xs) viewport, which is any size less than 576px, Bootstrap defaults to a full-width layout unless specified otherwise. Since there are no explicit columns defined for the xs breakpoint, the div will act as though it spans all 12 columns available in a row. Therefore, in an xs viewport, the div with the classes provided will take up all 12 columns, confirming that the answer is indeed 12.

5. Which of the following code segments will prevent users from being able to zoom in or out on your content?

A. <meta name='viewport' content='width=device-width, initial-scale=1, maximum-scale=1'>

B. <meta name='viewport' content='width=device-width, initial-scale=1'>

C. It is impossible to lock the zoom ability

D. <meta name='viewport' content='width=device-width, initial-scale=0.5'>

The code segment that effectively prevents users from being able to zoom in or out on your content is the one that includes both the `maximum-scale=1` and the `initial-scale=1` values within the viewport meta tag. By specifying these values, you are setting the initial zoom level to 1 (100% scale) and limiting the maximum zoom level also to 1. This instructs the browser not to allow any zooming, meaning the content will always be displayed at its default size without letting users pinch to zoom in or out. This is particularly important in responsive design, where maintaining the intended layout and usability on all screen sizes and resolutions is crucial. Users with visual impairments may need to zoom for better readability, so it's generally advisable to consider the implications of disabling zoom before implementing this in a live project. The other choices do not effectively lock the zoom feature. One option lacks the maximum scale limitation, another claims it's impossible to lock zoom, and the last one sets an initial scale but would allow users to zoom beyond that level, therefore it does not prevent zooming.

6. Can the padding and margin properties be styled with unique colors?

A. False

B. True

The correct answer is that padding and margin properties cannot be styled with unique colors because they are not visually rendered as colored areas in the same way that borders or backgrounds are. Padding refers to the space between the content of an element and its border, while margin refers to the space outside the border, separating it from other elements. While you can control the size of padding and margin using values like pixels, ems, or percentages, these properties do not have a visual representation that supports color. To make an area visually distinct with color, the background color or border color of the element needs to be modified. If you want to highlight a space that includes padding or margin, you would typically set a background color on the element itself or apply borders to see that distinction in color. Thus, the idea that padding and margin can have colors applied directly to them is misleading, which is why the correct answer is that they cannot be styled with unique colors.

7. What validation error will this code produce: <!DOCTYPE html><html lang="en"><head><meta charset="UTF-8"><title>Testing</title></head><body> <h2>Val me!</h2> </body></html>?

A. No p element in scope but a end tag seen.

B. No error.

C. Start tag seen without seeing a doctype first.

D. Unexpected end of document.

The code snippet provided demonstrates a structural error in HTML regarding the nesting of elements. The presence of a `<h2>` element inside a `<p>` (paragraph) element violates the rules of proper HTML structure. According to HTML specifications, a paragraph element cannot contain block-level elements, such as headings (`<h1>`, `<h2>`, etc.). When the browser renders this code, it first encounters the opening `<p>` tag, followed by the opening `<h2>` tag. When the browser tries to close the `<p>` tag, it determines that the `<h2>` tag is not a valid child of a `<p>` because it expects inline content only. This situation leads to a validation error stating "No p element in scope but a end tag seen," as the closing tag for the paragraph is reached without the proper structure being followed. Understanding the rules around element nesting is crucial for writing valid HTML. Proper semantic markup not only guarantees correct rendering across browsers but also aids accessibility and SEO.

8. What does FTP stand for?

A. File Transfer Protocol

B. File Transmission Pipe

C. File To Push

FTP stands for File Transfer Protocol. It is a standard network protocol used to transfer files from one host to another over a TCP-based network, such as the Internet. FTP allows users to upload, download, delete, rename, and manage files on a server. The protocol establishes a connection between a client and a server, enabling the efficient transfer of data. Understanding FTP is essential for web development, as it is frequently used for uploading files to a web server, allowing developers to publish and manage web content effectively. The correct answer captures the technical meaning and application of FTP in the context of network communications and file management.

9. Which property is used to change the font size in CSS?

A. font-style

B. text-size

C. font-size

D. size-font

The property used to change the font size in CSS is indeed font-size. This property allows developers to specify the size of the text within an HTML element, enabling control over how large or small the text appears on the web page. Using font-size, you can set values in various units, including pixels (px), ems (em), rems (rem), percentages (%), and more. For example, setting font-size: 16px; will make the font size of the specified element 16 pixels, while font-size: 1.5em; would scale the font size relative to its parent element's font size. Other choices, such as font-style, are used for different typography aspects, such as italicizing text. Text-size and size-font are not recognized CSS properties, so they would not have any effect on font size in a stylesheet. Thus, font-size is the proper property to manipulate the size of text in design and layout.

10. If you have an element with the font size of 18px, and a child element inside with a font-size set to .5em, what is the font size of the child in px?

A. 0.9px

B. 9px

C. 90px

D. 900px

To determine the font size of the child element when it is set to .5em, it's important to understand how the 'em' unit works in relation to the font size of a parent element. The 'em' unit is relative to the font size of the element on which it is applied. In this case, the parent element has a font size of 18px. When the child element is styled with a font size of .5em, it means that its font size will be half of the parent element's font size. Therefore, you can calculate the font size of the child element as follows: 0.5em = 0.5 * 18px This calculation gives you: 0.5 * 18px = 9px Consequently, the font size of the child element is 9px. This understanding of how em units relate to their parent elements is crucial in responsive web design and allows developers to create scalable and flexible layouts.