**The Bold one are answers**

1. TCP/IP (Transmission Control Protocol / Internet Protocol) introduced in early 80’s was primarily used for communication by which of the disparate networks at that time. Select one: a**. ARPANET** b. USENET c. X.25 d. All of above
2. Which of the following contain only valid Application layer protocols? Select one: a. SMTP, IP, DNS. **b. HTTP, FTP, DNS.** c. SMTP, SSH, TCP. d. HTTP, HTML, FTP.
3. In a simplified four-layer network stack model, what are the four (4) layers called? Select one: a. Mac Address, Application, TCP, HTTP. b. Packet, Internet, Application, Connection. c. Link, Packet, Application, HTTP. **d. Link, Internet, Transport, Application.**
4. How many bits are required to fully describe an IPv6 address? Select one: a. 256 **b. 128** c. 96 d. 32
5. Which language is used to describe and display content on the web Select one: a. XML **b. HTML** c. JavaScript d. PHP
6. What is the primary function of the <head> section of a HTML file? Select one: **a. Used for metadata, as well as for linking stylesheets and scripts**. b. Only used for metadata related to search engine optimisation. c. Used to link external stylesheets and scripts, and for defining HTML elements. d. Used to define internal style rules for changing the display of content.
7. What are two ways you can increase the accessibility of your tables? Select one: a. Use the <caption> element to describe content. Use the <td> element to add text headers to your columns. b. Use the <legend> element to describe content. Use the <th> element to add text headers to your columns. **c. Use the <caption> element to describe content. Use the <th> element to add text headers to your columns**. d. Use the <figcaption> element to describe content. Use the <td> element to add text headers to your columns.
8. Block-level HTML elements are represented by a box (i.e. the box model). What are its four (4) components? Select one: a. Padding, content area, background, width. b. Width, height, display, float. **c. Content area, padding, border, margin.** d. Margin, border, width, height.
9. What are the names of three types of valid CSS selectors? Select one: **a. Class, relational, attribute**. b. Element, element-position, pseudo-element. c. Individual, class, positional. d. Pseudo-class, element, individual.
10. Consider this CSS style rule: div { padding: 3px 2px 1px 4px; } What are the values for the top, bottom, left, and right padding? Select one: a. Top: 1px, Bottom: 3px, Left: 4px, Right: 2px. **b. Top: 3px, Bottom: 1px, Left: 4px, Right: 2px.** c. Top: 4px, Bottom: 2px, Left: 1px, Right: 3px. d. Top: 3px, Bottom: 2px, Left: 1px, Right: 4px.
11. What is the shorthand declaration for setting a block-level element’s border-style (solid), border-color (black), and border-width (2px) properties? Select one: **a. border: 2px solid #000**; b. border: solid black 2px; c. border: black 2px solid; d. border: 2px #000 solid;
12. What are three forms elements that can greatly increase the accessibility of your forms? Select one: a. <fieldset>, <caption>, <input>. b. <label>, <input>, <fieldset>. **c. <label>, <caption>, <legend>**. d. <label>, <fieldset>, <legend>.
13. What is the HTML5 <aside> element used for? Select one: **a. Content that is only indirectly related to the main content, such as a sidebar**. b. A section of the main content. c. A section of the layout that floats to the left or right. d. Footer content, such as site navigation links.
14. What are four (4) valid values of the clear property? Select one: a. Right, none, all, both. b. Right, left, top, bottom. **c. Left, right, both, none.** d. Top, bottom, none, all.
15. What is the main reason to consider active whitespace when designing the layout of a webpage? Select one: **a. It helps to structure and separate content**. b. It adds a border to the outside of the page. c. It is the result of mismatched element dimensions and should be avoided. d. Whitespace should be actively avoided and minimised.
16. How are variables typed in JavaScript? Select one: a. They are statically and strongly typed. b. They are statically and weakly typed. c. They are dynamically and strongly typed. **d. They are dynamically and weakly typed.**
17. What does the === JavaScript operator do? Select one: a. It sets the type and value of a variable to that of another variable. **b. It tests type and value equivalence**. c. It sets both the value and memory address of a variable to that of another variable. d. It tests value and memory address equivalence.
18. In JavaScript, what is a prototype? Select one: **a. An object from which other objects can inherit.** b. An instance of a class. c. An anonymous function. d. A base class.
19. var numbers = [2, 4, 6, 8, 10, 12, 14, 16]; var subset = numbers.slice(2, 6); var count = 0; for (var i = 0; i < subset.length - 1; i++) { count += subset[i]; } console.log(count);

**Answer is 24**

1. In jQuery, what is the main functionality that AJAX requests provide? Select one: a. Animations and image effects. b. It allows form validation by preventing default form submission. c. It decreases page load times. **d. It allows the browser to make asynchronous requests.**
2. What are the four (4) valid types of jQuery selectors? Select one: a. Element, Class, ID, Value. b. Pseudo-Class, ID, Attribute, Position. c. Universal, Pseudo-Element, Ancestor, Class. **d. Universal, Attribute, Pseudo-Element, Contextual.**
3. What does a 4xx status code in a HTTP response indicate? Select one: a. Success. b. Redirection. c. Server error. **d. Client error.**
4. What are the three (3) main PHP modules called? Select one: a. PHP core, library layer, complier. b. PHP main, Adaptive layer, zend engine. **c. PHP core, extension layer, zend engine**. d. PHP main, library layer, HTTP layer.
5. Consider the following PHP code: <?php $numbers = [1, 2, 3, 4, 5, 6, 7, 8]; $output = []; foreach ($numbers as $value) { if ($value % 2 == 0) { array\_push($output, $value); } } array\_walk($output, function(&$value) { $value++; }); print($output[2] .PHP\_EOL); What will be the output displayed? Select one: a. 7 b. 9 c. 6 d. 8

**Answer is 7**

1. Identify ONE web programming principle or technique that you understand and can apply with confidence. You MUST have learned your chosen principle or technique in this unit.

2. A webpage is to contain 12 blocks of text, each representing a description of one of the twelve western astrological star signs. If the screen size is below 350px, the blocks of text should be displayed in a single column of 12. If the screen size is greater than 350px but less than 720px, the blocks of text should be displayed in two columns of six blocks, with padding of 20px between the two columns. If the screen size is greater than 720px, the text should be displayed in three columns of four blocks, with padding of 20px between the three columns. Using what you've learned in this unit, provide code that achieves this.

3. Write a Javascript pseudoclass to represent a geek. It should have the following properties: name and date of birth. It should also include: -an anonymous function that determines the geek's generation based on the information in below: Builders, Born: <1946 Baby Boomers, Born: 1946-1964 Gen X, Born: 1965-1979 Gen Y, Born: 1980-1994 Gen Alpha, Born: 2010-2024 -an anonymous function that uses the information in the diagram below to determine the geek's star sign based on their date of birth. Aries (March 21 - April 19) Taurus (April 20 - May 20) Gemini (May 21 - June 20) Cancer (June 21 - July 22) Leo (July 23 - August 22) Virgo (August 23 - September 22) Libra (September 23 - October 22) Scorpio (October 23 - November 21) Sagittarius (November 22 - December 21) Capricorn (December 22 - January 19) Aquarius (January 20 - February 18) Pisces (February 19 - March 20)

4. Describe this principle or technique, explaining why it was important in your implementation of at least ONE of your assignments

5.

a) Identify ANOTHER web programming principle or technique that you have mastered in this unit.

b) Describe this principle or technique, explaining why it was important in your implementation of at least ONE of your assignments.

c) Identify and explain ONE approach, method or feature that is used to implement this principle or technique. You MUST provide specific details (including code snippets where relevant) illustrating HOW and explaining WHY you implemented the principle/technique in this manner in at least ONE of your assignments.

6.

a) Identify ONE web programming principle or technique that you feel you don't have a good grasp on. You MUST have learned your chosen principle or technique in this unit.

b) In your own words, describe this principle or technique to the best of your ability, identifying any gaps in your knowledge. You MUST provide at least ONE example of how you attempted to use it in a tutorial or in an attempt to complete a component of one of your assignments.

7.

a) Using what you've learned in this unit, create a server-side class to represent a star sign. It should have the properties: name start date end date AND zodiac element You must make use of an appropriate interface to ensure that it is possible to return a JSON encoded representation of an object of this class.

b) Create an array containing multiple objects of the class you created in a). The objects may represent the following star signs: Capricorn, Dec 22-Jan 19, Earth Aquarius, Jan 20-Feb 18, Air Pisces, Feb 19-Mar 20, Water 8. Implement a server-side code snippet to check the size of the file, providing an appropriate message if the file is not within the required limits. Your implementation must be achieved such that it cannot be overridden by the client.

c) Explain why the code you provided in a) is the most effective way of regulating file size.

Week 1: History and Architecture

Week 2: Introduction to HTML and CSS

Week 3: HTML and CSS continued

Week 4: Page Layout and Design

Week 5: Introduction to Javascript

Week 6: jQuery and AJAX

Week 7 and 8: Break

Week 9: Design Principles & 'Putting it all Together'

Week 10: Server-Side Programming and PHP

Week 11: Advanced PHP (Superglobals, File Uploads and I/O, Classes)

Week 12 - Server-Side Development  
  
  
Question 27:

Responsive web design