

THE OPEN UNIVERSITY OF SRI LANKA
 B.Sc.(IT) DEGREE PROGRAMME: LEVEL 05
 DEPARTMENT OF COMPUTER SCIENCE
 NO BOOK TEST 2(CAT 02) - 2023/2024
 ITU5308 – WEB TECHNOLOGY
 DURATION: One hour



Date: 02nd November, 2024

Time: 2.30 pm – 3.30 pm.

Answer ALL Questions.

Registration No.

Write the answers on the question paper itself.

Section 1 - Write the most appropriate answer inside the cage provided for each question.

Question	Write the most appropriate Answer
1. Which of the following IP address ranges is reserved for private networks? a) 10.0.0.0 to 10.255.255.255 b) 172.32.0.0 to 172.32.255.255 c) 192.10.0.0 to 192.10.255.255 d) 223.0.0.0 to 223.255.255.255	
2. How does DNS function in the context of web technology? a) By storing and managing user login information b) By translating domain names into IP addresses for communication c) By securing data transmission through encryption d) By controlling how HTTP requests are processed	
3. What protocol is commonly used for communication between web clients and web servers? a) FTP b) SMTP c) HTTP d) SNMP	
4. Which protocol is used to securely transfer data between a web server and client? a) FTP b) HTTP c) HTTPS d) SMTP	

<p>5. What does the "href" attribute in an <a> (anchor) tag specify?</p> <ul style="list-style-type: none"> a) The destination URL of the link b) The text of the link c) The font size of the link d) The color of the link 	
<p>6. Identify the mistake in this code:</p> <pre>Link</pre> <ul style="list-style-type: none"> a) Missing closing tag b) Incorrect URL format c) <a> should not be used for links d) Missing opening <a> tag 	
<p>7. What is the purpose of the "colspan" attribute in an HTML table?</p> <ul style="list-style-type: none"> a) To merge rows across multiple columns b) To merge multiple columns into one c) To specify the width of a column d) To span columns across multiple tables 	
<p>8. Where is the CSS defined when using internal CSS?</p> <ul style="list-style-type: none"> a) In a separate .css file b) Directly within the HTML elements c) Inside the <head> section of the HTML file d) Inside the body of the document 	
<p>9. What is the key characteristic of block-level elements?</p> <ul style="list-style-type: none"> a) They always occupy the full width available b) They cannot contain other elements c) They are always displayed inline with other elements d) They are automatically hidden unless styled 	
<p>10. How do you target an element with a specific ID in CSS?</p> <ul style="list-style-type: none"> a) Using a period (.) followed by the ID b) Using a hashtag (#) followed by the ID c) Using an asterisk (*) followed by the ID d) Using a colon (:) followed by the ID 	
<p>11. Which CSS property is used to control the space between an element's border and its content?</p> <ul style="list-style-type: none"> a) margin b) border c) padding d) width 	

<p>12. What does the :hover pseudo-class do?</p> <ul style="list-style-type: none"> a) Styles an element when it's selected b) Styles an element when a user hovers over it c) Styles an element when it is clicked d) Styles an element when it loses focus 	
<p>13. Which of the following pseudo-classes is used to change the style of a hyperlink when the user clicks on it?</p> <ul style="list-style-type: none"> a) :hover b) :active c) :focus d) :visited 	
<p>14. Which of the following is a correct example of using a descendant combinator?</p> <ul style="list-style-type: none"> a) div > p b) div + p c) div p d) div ~ p 	
<p>15. What does the universal selector (*) do in CSS?</p> <ul style="list-style-type: none"> a) It selects all elements of a specific type b) It selects all elements on the page c) It selects all elements with a specific class d) It selects all elements with a specific ID 	
<p>16. In a CSS Grid layout, what property is used to define the number of columns?</p> <ul style="list-style-type: none"> a) grid-template-rows b) grid-column c) grid-template-columns d) grid-area 	
<p>17. Which of the following is a correct example of a media query targeting devices with a maximum width of 768px?</p> <ul style="list-style-type: none"> a) @media (max-width: 768px) { ... } b) @media screen and (min-width: 768px) { ... } c) @media only screen and (width: 768px) { ... } d) @media (min-width: 768px) { ... } 	
<p>18. What does JavaScript primarily allow a web developer to do?</p> <ul style="list-style-type: none"> a) Define the structure of a web page b) Style a web page with fonts and colors c) Make web pages interactive and dynamic d) Store data in a database 	

<p>19. Which of the following actions can client-side scripting languages like JavaScript handle?</p> <p>a) Accessing databases directly b) Running on the web server c) Validating form inputs before submission d) Managing server-side APIs</p>	
<p>20. Which of the following is a valid JavaScript function declaration?</p> <p>a) function myFunction[] b) function myFunction() c) myFunction() function d) myFunction[]</p>	

Section 2 - Write the answer inside the cage provided for each question.

i	<p>Explain the role of DNS (Domain Name System) in web technology and how it relates to IP addresses.</p>
ii	<p>How does DNS contribute to the user experience when accessing websites?</p>

iii.	How does a client-server model work in the context of web technologies?
iv.	What is the purpose of web server software, and name two popular examples?
v.	How is a URL different from a domain name?
vi.	Explain the purpose of the "alt" attribute in an <code></code> tag.
vii.	Give two examples of block-level elements and two examples of inline elements.

viii.	Explain how the "colspan" attribute works in an HTML table.
ix.	Draw output of the below sample HTML code <pre><table border="1"> <tr> <td colspan="3">Header spanning 3 columns </td> </tr> <tr> <td>Column 1 </td> <td>Column 2 </td> <td>Column 3 </td> </tr> </table></pre>
x.	When would you use inline CSS, and what is its disadvantage?

xi.	<p>Draw output of the below sample HTML code</p> <pre><table border="1"> <tr> <td rowspan="2">Rowspan</td> <td colspan="2">Colspan</td> </tr> <tr> <td>Cell 1</td> <td>Cell 2</td> </tr> </table></pre>
xii.	<p>How do you apply styles to all elements of a specific type, like <h1> tags, in CSS?</p>
xiii.	<p>How do you create a simple CSS grid with three columns?</p>

xiv.	How do media queries help achieve responsive design in CSS?
xv.	How does JavaScript enable dynamic content on a web page?

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