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|  | **School of Digital Technologies**  **Bachelor of Digital Technologies**  **502.525 Front End Web Development**  **Semester 2 - Practice** **TEST 02 - 2025** |
| Course | 502.525 Front-End Web Development |
| Assessment type | Practice Test |
| Date | Week 14 |
| Course contribution | **30%** |
| Time Allowed | 130 minutes |
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| **Student ID:** |  |
| **Student NAME:** |  |
| **Notice:**  **By submitting this test, you are agreeing with the following Statement of Valid Authorship:**  **Statement of Valid Authorship**  I hereby confirm that these test answers are my own work done in the test time. This means that to the best of my knowledge and belief, this test contains only my own created and assembled responses to these particular questions without communication with any other person except the course lecturer. I make this statement fully understanding that, should it be found false, I will, in most circumstances, receive zero marks for this test.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

This test is confidential to you. Do not share the test questions or your responses.

**Front End Website Development - Practice Test [30 marks]**

Open Book Practice Test.

Learning Outcomes - elements of all 5 learning outcomes are assessed:

* LO1: Apply the fundamentals of responsive web design and JavaScript
* LO2: Apply the fundamentals of web interface design using HTML and CSS
* LO3: Implement visually rich interactive dynamic web applications and publish them
* LO4: Test, debug, and correct web applications

**You can use your own laptop or a lab machine.**

Shut down cell phones. Except for taking the test online where you need it for emergency communication use including mobile data. Inform the supervisor of any such use.  
If you need to go to the toilet, let the supervisor know and show him/her that your cell phone is staying in the room. For online students, set Teams status to "Be right back".

Download the test zip file " FEWD\_Practice Test 2 - S2 -2023.zip" from Canvas into your working folder.   
Rename this “container” folder adding your student name - e.g. " FEWD\_Practice Test 2 - S2 -2022 \_John"  
Start Visual Studio/visual code with this as the parent folder of your website.  
At the end of the test, zip up ALL of your work and hand in to Canvas.

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| Question | Topic | Marks | Suggested Time |
| 1 | CSS Menu and Content Presentation | 9 | 39 min |
| 2 | Form with Bootstrap and Validation | 10 | 43 min |
| 3 | Coding using Javascript | 11 | 48 min |
|  | TOTALS | 30 | 130 min |

**QUESTION ONE CSS Menu and Content Presentation [9 Marks]**

Open “**index.html**” and solve the tasks 1-1 to 1-6. Comment your code changes. You need to use External CSS file.

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| **1.1** | **Make the body Verdana, size Medium, black, with yellow background, and no margins.**  **Make all heading fonts Georgia, and make Heading 1 xx-large and cardinal red.** | [1 mark] |

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| **1.2** | **Create a class called income and make it a background colour of #0ff.**  **Create a class called expenses and make it a background colour of #f0f.**  **Create a class called profit and make it a background colour of #f00.**  **Throughout the document, any text that mentions income, expenses, or profit, attach the appropriate class to that piece of text.** | [2 marks] |

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| **1.3** | **Change the tag li to have the following properties:**  • **A display status of inline**  **• A medium, double-lined, black border**  **• No list style type**  **Add the following properties to the style for li:**  **• Margin of 5px**  **• Padding of 10px to the top, 20px to the right, 10px to the bottom, and 20px to the left** | [1 mark] |

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| **1.4** | **Add an advanced rule of p:first-letter and create the following properties for this rule:**  **• Font size of 36px**  **• Font weight of bold** | [1 mark] |

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| **1.5** | **Change the p:first-letter rule so that content affected by it will float to the left.** | [2 marks] |

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| **1.6** | **Comment your code changes** | [1 mark] |

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Screen shot of "index.html" after changes 1-2, 1-3, 1-4. 1-5

Text

Description automatically generated with low confidence

**QUESTION TWO Form Responsiveness and Validation [10 marks]**

Work on file "**Contact.html**" through the following steps. Comment your code changes.

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| **2.1** | This old form uses the obsolete <table …> element with its children for layout. Your boss considers this to be bad HTML design and gives you the job of re-coding it with "**Bootstrap**".  Add code to this page to use Bootstrap 5 via CDN (Content Delivery Network) link. | [1 mark] |

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| **2.2** | Replace this <table ..> layout with one using elements that work with **Bootstrap (Grid)** to give a similar 2-column display on "medium" devices. | [3 marks] |

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| **2.3** | Provide validation coding to improve the client-side quality of user input.  **Some business rules for this data entry:**   * The user is not permitted to leave input fields empty. * Cat weight needs input validation (numeric) only, also Cat weight should be greater than 10. * Cat Name should be more than 5 letters/characters. * The user must select one of the cat's main problem. * Cat age should be numeric between 1 and 20 * Cat's Contact Email should be valid. | [4 marks] |

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| **2.1** | **Comment your code changes** | [2 marks] |

**QUESTION THREE JavaScript [11 marks]**

Work on file "**Calculation.html**" through the following steps. Comment your code changes.

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| **3.1** | (a) **Write a JavaScript function that checks whether a passed string is palindrome or not?**  A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam.  (b) Display the result when text is entered into the text box.  Use the <p> with id “PalindromeResult” to display the result of this operation [1] | [3 marks] |

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| **3.2** | Write a JavaScript conditional statement to **sort** three numbers. Display an alert box to show the result.  **Sample numbers:** 0, -1, 4  **Output:** 4, 0, -1 | [2 mark] |

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| **3.3** | Write a function that takes the base and height of a triangle and return its area.  Hint: The area of a triangle is: (base \* height) / 2  (b) Display the result when radius is entered into the text box.  Use the <p> with id “AreaResult” to display the result of this operation [0.5] | [2 mark] |

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| **3.4** | Write a JavaScript code to display the description of temperature based on the value as follows:   |  |  | | --- | --- | | Temperature value | Description | | (5 - 10) | Cold | | (11 - 16) | Mild | | (17 - 22) | Hot | | (more than 22) | Super-hot |   (b) Display the result when value is entered into the text box.  Use the <p> with id “TempResult” to display the result of this operation [0.5] | [3 marks] |

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| **3.5** | Write a JavaScript code to calculate the number of times a single character appears (is found) in the text.  **Examples**   * ("a", "edabit") ➞ 1 * ("c", "Chamber of secrets") ➞ 1 * ("b", "big fat bubble") ➞ 4   **Notes**  Your output must be case-sensitive (see second example). | [2 marks] |

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| **3.6** | Write a JavaScript code to calculate the factorial of an integer number. That is, the integer multiplied by all positive lower integers.  Factorial (5) ➞ 5 \* 4 \* 3 \* 2 \* 1 = 120 | [1 mark] |

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| **3.7** | Write a JavaScript code to print a pattern for a given range using nested for loop.  Example:  printPattern(8);  /\* 1  1 2  1 2 3  1 2 3 4  1 2 3 4 5  1 2 3 4 5 6  1 2 3 4 5 6 7  1 2 3 4 5 6 7 8 \*/ | [1 mark] |

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| **3.8** | Comment your code changes | [1 mark] |
| **3.9** | **Deploy your project to GitHub (you may use any approach)** | 3 marks |

**END of TEST**