INSTRUCTIONS:

This paper contains the following sections with a total of 45 marks:

- **Five True/False Questions** 1 mark each  5 marks
- **Five Modified True/False Questions** 1 mark each  5 marks
- **Five Multiple Choice Questions** 1 mark each  5 marks
- **Five Short Answer Questions** 2 marks each  10 marks
- **Four Long Answer Questions** 5 marks each  20 marks

Total:  45 marks

PLEASE NOTE

Examination candidates may only bring authorised materials into the examination room. If a supervisor finds, during the examination, that you have unauthorised material, in whatever form, in the vicinity of your desk or on your person, whether in the examination room or the toilets or en route to/from the toilets, the matter will be reported to the head of school and disciplinary action will normally be taken against you. This action may result in your being deprived of any credit for this examination or even, in some cases, for the whole unit. This will apply regardless of whether the material has been used at the time it is found.

Therefore, any candidate who has brought any unauthorised material whatsoever into the examination room should declare it to the supervisor immediately. Candidates who are uncertain whether any material is authorised should ask the supervisor for clarification.
Please do not tear out any pages from this exam paper.

Please use PEN to answer the short and long answer questions.

No calculators permitted.

You can answer questions in the spare pages provided at the end of this paper, but make sure you clearly label the question you are answering.

Cross-out rough work or notes if you do not want them to be assessed.

Office Use Only:

<table>
<thead>
<tr>
<th>Questions</th>
<th>Attempted?</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>True/False: (Q1-Q5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modified True/False: (Q6-Q10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Choice: (Q11-Q15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short Answers: (Q16-Q20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long Answers (Q21-Q24)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(5 marks) True/False (1 mark each) 
Indicate whether the sentence or statement is true or false.

**T** ___ 1. An HTML file contains both formatting tags and content.

**T** ___ 2. The alt attribute in an <img> element, is often used to include a text description of the image, which displays for non-graphical browsers.

**T (CSS2)/F(CSS1)** 3. In resolving style rule conflicts, styles specified in the web pages take precedence than the user-defined styles.

**F** ___ 4. By default, a block level element will be displayed with a bordered box around it.

**T** ___ 5. CSS2 positioning is more advantageous than <table> for page layout.

(5 marks) Modified True/False (1 mark each) 
Indicate whether the sentence or statement is true or false. If false, change the identified word or phrase to make the sentence or statement true.

**F** ___ 6. Web pages are written in a language called Hyperlink Markup Language, or HTML. ___ Hypertext Markup Language

**F** ___ 7. The User Datagram Protocol checks each received data packet to ensure correctness. ___ Transmission Control Protocol

**T** ___ 8. During rendering, the browser ignores all blank space characters and line breaks in HTML source code. ___

Note: If you say F and replaced the underline text with “all extra blank space characters and all line breaks”, it is also correct.

**F** ___ 9. A computer that makes a resource available to a network is called a client server (I have also given mark to “host” – which is a term used more often in networks).

**F** ___ 10. In an HTML form, the method attribute is used to specify the script file that processes the form data. ___ action
Multiple Choice (1 mark each)
Identify the letter of the choice that best completes the statement or answers the question.

11. Given a file structure in the figure below, if you are working on the source code of index.html, which of the following is the correct relative URL for lecture1.html?

http://www.csse.uwa.edu.au/cits1231/

![File Structure Diagram]

a) lecture1.html
b) lectures/lecture1.html
c) ../lectures/lecture1.html
d) ./lecture1.html

12. In the URL http://www.mwu.edu/course/info.html#majors, which part indicates an internal section of the page?

a) http://
b) www.mwu.edu
c) /course/info.html
d) #majors

13. Which of the following is NOT an inline element?

a) <img/>
b) <input/>c) <span>
d) None of the above

14. In HTML tables, the number of columns is determined by

a) how many <td> elements are inserted within each row.
b) the width attribute of the <tr> element.
c) the <col> element.
d) none of the above.

15. Which of the following statements is true?

a) JPG files are limited to 256 colors.
b) GIF files support 8 bit transparency.
c) Use GIF files for photographs.
d) GIF uses LZW lossless compression algorithm.
(10 marks) Short Answer Questions (2 marks each)

16. For site design, when would you use a linear structure in preference to a hierarchical structure?

   When the page content follow some natural ordering, e.g. chronological or instruction steps.

17. Write HTML code to illustrate how to create hyperlinks to an internal part of a web page?

   Create an anchor to link to first: `<a name="top" id="top"></a>`
   (note: can be other elements such as `<div>`)  
   Create the hyperlink: `<a href="#top">Go to Top</a>`

18. How would you make a set of radio buttons mutually exclusive, i.e. only one choice can be selected at a time?

   Make sure all radio buttons in the same group have the same value for the name attribute.

19. What does the following HTML code do?

   `<area shape="rect" coords="384,66,499,271" href="water.html">`

   It specify a rectangular area inside an image as a hotspot, when clicked, it links to water.html. The area’s top left corner is (384,66) and the bottom right corner is (499, 271).

20. Show how you can replace the following repetitive declarations with a single declaration.

    ```
    h1 {font-family: sans-serif}
    h2 {font-family: sans-serif}
    h3 {font-family: sans-serif}
    h1, h2, h3 {font-family:sans-serif}
    ```
(20 marks) Long Answer Questions (5 marks each)

21. Use an example to explain dynamic routing.  

Dynamic routing is a technique to select the best route according to the network conditions at the time of transmission. This becomes possible because of the heterarchical structure of the Internet, devoid of the critical sites. Every node in the network is connected with at least two others. This also means when large data file is split into smaller packets, the packets may take on different routes to arrive at the destination. Protocols are used to ensure the correct assembly of packets at the destination computer.

22. Write the HTML code that produces the following table (note also the alignment). The image is called tower.jpg and stored in a folder called images. The images folder is inside the same folder of this HTML file.

<table>
<thead>
<tr>
<th>Heading 1</th>
<th>text</th>
<th>Heading 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>text</td>
<td>text</td>
<td></td>
</tr>
<tr>
<td>text</td>
<td></td>
<td>&lt;img src=&quot;images/tower.jpg&quot;/&gt;</td>
</tr>
</tbody>
</table>

```html
<table border=1>
<tr>
  <th align="centre">Heading 1</th>
  <td>text</td>
  <td rowspan="3" align="right"><img src="images/tower.jpg"/></td>
</tr>
<tr>
  <th align="centre" rowspan="2">Heading 2</th>
  <td>text</td>
</tr>
<tr>
  <td>text</td>
</tr>
</table>
```
23. Use examples to briefly describe at least three different types of selectors of relevant HTML code for applying a CSS style rule.

   Element Selector: p {text-align:right}
   Contextual Selector: p em {color:red}
   Pseudo Class Selector: a:hover{color:red; background-color:black}

   and many more …

24. Explain the differences between POST and GET when sending HTML form data.

<table>
<thead>
<tr>
<th>GET</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send data to the server by appending it to the end of the URL</td>
<td>Send data as separate packets</td>
</tr>
<tr>
<td>Sensitive data will be displayed as part of the URL</td>
<td>The data is hidden from user but still in plain text, but possible to work with https.</td>
</tr>
<tr>
<td>URL has size restrictions – not suitable for large amount of data</td>
<td>Suitable for sending file and large amount of data for storage on the server-side</td>
</tr>
<tr>
<td>Query can be cached for future use</td>
<td>Not possible for caching and bookmarking</td>
</tr>
</tbody>
</table>

END OF PAPER
Spare Page
SPARE PAGE