

**Part A: Short Multiple Choice Questions****(30 marks)**

For each of the following multiple-choice questions select the single best answer. Each question is worth 1 mark.

1. Which one of the following HTML5 code fragments is most correct for a form element?

- a. `<form></form>`
- b. `<form action="register.php" method="POST"></form>`
- c. `<form alt="register.php"></form>`
- d. `<form action="register.php"></form>`

2. Which of the following HTML5 code fragments is most correct for a submit button element?

- a. `<input type="submit">submit</input>`
- b. `<button>submit</button>`
- c. `<input type="submit" value="Submit" />`
- d. `<button type="submit" value="Submit" />`

3. Which one of the following HTML5 code fragments of is most correct for an unordered list?

- a. 

```
<p>The following items are:</p>
<ul>
  <li>Item 1</li>
  <li>Item 2</li>
</ul>
```
- b. 

```
<ul>
  <p>The following items are:
    <li>Item 1</li>
    <li>Item 2</li>
  </p>
</ul>
```
- c. 

```
The following items are:
<ul>
  <p><li>Item 1</li></p>
  <p><li>Item 2</li></p>
</ul>
```
- d. 

```
<p>
  <ul>
    The following items are:
    <li>Item 1</li>
    <li>Item 2</li>
  </ul>
</p>
```

4. Which one of the following HTML5 code fragments is most correct for a nested list?

- a. 

```
<ul>
  <li>Item 1, examples are:</li>
  <li>
    <ul>
      <li>Sub item 1</li>
      <li>Sub item 2</li>
    </ul>
  </li>
  <li>Item 2</li>
</ul>
```
- b. 

```
<ul>
  <li>Item 1, examples are:</li>
  <ul>
    <li>Sub item 1</li>
    <li>Sub item 2</li>
  </ul>
  <li>Item 2</li>
</ul>
```
- c. 

```
<ul>
  <li>Item 1, examples are:
    <ul>
      <li>Sub item 1</li>
      <li>Sub item 2</li>
    </ul>
  </li>
  <li>Item 2</li>
</ul>
```
- d. 

```
<ul>
  <li>Item 1, examples are:
    <ul>
      <li>Sub item 1
      <li>Sub item 2
    </ul>
  <li>Item 2
</ul>
```

5. Which of the following HTML5 code fragments is most correct for a table element?

- a. 

```
<table>
  <title>Car Price</title>
  <tr>
    <th>Model</th>
    <th>Price</th>
  </tr>
  <tr>
    <td>Honda Civic 2014</td>
    <td>$30,000</td>
  </tr>
  <tr>
    <td>BMW X5 2014</td>
    <td>$80,000</td>
  </tr>
</table>
```
- b. 

```
<h1> Car Price </h1>
<table>
  <tr>
    <td>Model</td>
    <td>Price</td>
  </tr>
  <tr>
    <td>Honda Civic 2014</td>
    <td>>$30,000</td>
  </tr>
  <tr>
    <td>BMW X5 2014</td>
    <td>$80,000</td>
  </tr>
</table>
```
- c. 

```
<table>
  <caption>Car Price</caption>
  <tr>
    <th>Model</th>
    <th>Price</th>
  </tr>
  <tr>
    <td>Honda Civic 2014</td>
    <td>$30,000</td>
  </tr>
  <tr>
    <td>BMW X5 2014</td>
    <td>$80,000</td>
  </tr>
</table>
```
- d. 

```
<table>
  <caption> Car Price </caption>
  <tr>
    <td>Model</td>
    <td>Price</td>
  </tr>
  <tr>
    <td>Honda Civic 2014</td>
    <td>>$30,000</td>
  </tr>
  <tr>
    <td>BMW X5 2014</td>
    <td>$80,000</td>
  </tr>
</table>
```

6. Which one of the following HTML5 code fragments is most correct for a menu?

- a. 

```
<div id="navigation">
  <nav>
    ... menu link codes ...
  </nav>
</div>
```
- b. 

```
<nav>
  ... menu link codes ...
</nav>
```
- c. 

```
<nav>
  <div id="navigation">
    ... menu link codes ...
  </div>
</nav>
```
- d. 

```
<div id="navigation">
  ... menu link codes ...
</div>
```

7. Which one of the following HTML5 code fragments is most correct for linking a CSS file named style.css?

- a. 

```
<link href="style.css"
type="text/css" rel="stylesheet" />
```
- b. 

```
<link src="style.css"
rel="stylesheet" type="text/css" />
```
- c. 

```
<link src="style.css"
type="text/css" />
```
- d. 

```
<script href="style.css"
rel="stylesheet" />
```

8. Which one of the following HTML elements is NOT a structural element?

- a. 

```
<section></section>
```
- b. 

```
<article></article>
```
- c. 

```
<aside></aside>
```
- d. 

```
<head></head>
```

9. Which one of the following HTML5 code fragments is most correct for radio input elements?

- |  |  |
|--|--|
| a. <pre>&lt;input type="radio" name="genderm"       value="M" /&gt; &lt;label for="genderm"&gt;Male&lt;/label&gt; &lt;input type="radio" name="genderf"       value="F" /&gt; &lt;label for="genderf"&gt;Female&lt;/label&gt;</pre>                            | c. <pre>&lt;input type="radio" id="genderm"       value="M" /&gt; &lt;label for="genderm"&gt;Male&lt;/label&gt;  &lt;input type="radio" id="genderf"       value="F" /&gt; &lt;label for="genderf"&gt;Female&lt;/label&gt;</pre>                             |
| b. <pre>&lt;input type="radio" id="genderm"       name="genderm" value="M" /&gt; &lt;label for="genderm"&gt;Male&lt;/label&gt;  &lt;input type="radio" id="genderf"       name="genderf" value="F" /&gt; &lt;label for="genderf"&gt;Female&lt;/label&gt;</pre> | d. <pre>&lt;input type="radio" id="genderm"       name="gender" value="M" /&gt; &lt;label for="genderm"&gt;Male&lt;/label&gt;  &lt;input type="radio" id="genderf"       name="gender" value="F" /&gt; &lt;label for="genderf"&gt;Female&lt;/label&gt;</pre> |

10. Which one of the following HTML5 code fragments is most correct for a <section> element?

- |   |   |
|---|---|
| a. <pre>&lt;section&gt;   My Assignment &lt;/section&gt;</pre>                          | c. <pre>&lt;section&gt;   &lt;h1&gt;My Assignment&lt;/h1&gt; &lt;/section&gt;</pre> |
| b. <pre>&lt;section&gt;   &lt;body&gt;My Assignment&lt;/body&gt; &lt;/section&gt;</pre> | d. <pre>&lt;section&gt;   &lt;b&gt;My Assignment&lt;/b&gt; &lt;/section&gt;</pre>   |

11. Which one of the following HTML5 code fragments makes the best of checkbox input elements?

- a. 

```
<input type="checkbox" id="chrome" value="Chrome" />
<input type="checkbox" id="firefox" value="Firefox" />
```
- b. 

```
<checkbox type="checkbox" name="browser" value="Chrome" />
<checkbox type="checkbox" name="browser" value="Firefox" />
```
- c. 

```
<checkbox type="checkbox" name="chrome" value="Chrome" />
<checkbox type="checkbox" name="firefox" value="Firefox" />
```
- d. 

```
<input type="checkbox" name="chrome" value="Chrome" />
<input type="checkbox" name="firefox" value="Firefox" />
```

12. Which one of the following HTML5 elements is **not** displayed by default as a block-level element?

- a. `<ul></ul>`
- b. `<p></p>`
- c. `<header></header>`
- d. `<span></span>`

13. Which one of the following CSS rules will place the footer element at the bottom left corner of the browser window?

- a. `footer {position: fixed; bottom:0px; left:0px;}`
- b. `footer {position: static; bottom:0px; left:0px;}`
- c. `footer {position: absolute; bottom:0px; left:0px;}`
- d. `footer {position: relative; bottom:0px; left:0px;}`

14. Consider the following HTML5 code fragment

```
<p> Knives are <strong id="hazard">sharp</strong>!  
  This water is <strong class="hazard">deep</strong>!  
</p>
```

Which of the following CSS rules would style only the text “sharp” in red?

- a. `p.hazard {color:red;}`
- b. `#hazard {color:red;}`
- c. `.hazard {color:red;}`
- d. `Hazard {color:red;}`

15. Consider the following HTML5 code fragment

```
<p>In Winter it is <em>cold</em> but  
  in Summer it is <strong>hot</strong>.</p>
```

Which one of the following CSS rules would style **both** text ‘cold’ and ‘hot’ in red?

- a. `.cold, .hot {  
 color:red;  
}`
- b. `#cold, #hot {  
 color:red;  
}`
- c. `em strong {  
 color:red;  
}`
- d. `em, strong {  
 color:red;  
}`

16. Which one of the following HTML5 code fragments is most correct for a `<select>` element?

- a. 

```
<select name="degree">
  <option value="N0515DIG">BA (Digital Media)</option>
  <option value="N0525GAM">BA (Games and Interactivity)</option>
</select>
```
- b. 

```
<select>
  <option name="degree" value="N0515DIG">BA (Digital Media)</option>
  <option name="degree" value="N0525GAM">BA (Games and Interactivity)</option>
</select>
```
- c. 

```
<select id="degree">
  <option value="N0515DIG">BA (Digital Media)</option>
  <option value="N0525GAM">BA (Games and Interactivity)</option>
</select>
```
- d. 

```
<select id="degree">
  <option name="N0515DIG">BA (Digital Media)</option>
  <option name="N0525GAM">BA (Games and Interactivity)</option>
</select>
```

17. Which one of the following CSS selectors will select all `<p>` elements in all `<section>` elements?

- a. `<p>, <section>`
- b. `.p, .section`
- c. `section p`
- d. `section, p`

18. Which of the following HTML5 code fragments is most correct for an image element?

- a. 

```
</img>
```
- b. 

```
logo</img>
```
- c. 

```

```
- d. 

```

```

19. Which of the following HTML5 code fragments is most correct for a `<a>` element?

- a. 

```
<a href="http://www.swin.edu.au">Swinburne</a>
```
- b. 

```
<a href="http://www.swin.edu.au" value="Swinburne" />
```
- c. 

```
<a>href="http://www.swin.edu.au"</a>
```
- d. 

```
<a href="www.swin.edu.au">Swinburne</a>
```

20. Which of the following comments is allowed in Cascading Style Sheets?

- a. `// This is a comment`
- b. `/* This is a comment */`
- c. `<!-- This is a comment -->`
- d. `// This is a comment //`

21. Which of the following JavaScript code fragments creates and initialises an array named `students` in the correct way?
- a. `var students = new Array("tim","kim","jim");`
  - b. `var students = new Array:1=("tim")2=("kim")3=("jim");`
  - c. `var students = new Array(1:"tim",2:"kim",3:"jim");`
  - d. `var students = new Array="tim","kim","jim";`
22. Which of the following HTML5 elements is used to link to an external JavaScript file named `"validate.js"`??
- a. `<script>validate.js</script>`
  - b. `<script src="validate.js"></script>`
  - c. `<script location="validate.js"></script>`
  - d. `<script URL="validate.js"></script>`
23. Which of the following CSS code is most correct for specifying background image?
- a. `back-ground-image:url('background.jpg');`
  - b. `background-image:url('background.jpg');`
  - c. `back-ground-image:background.jpg;`
  - d. `background-image:background.jpg;`
24. Which of the following is a massive network of networks?
- a. cloud
  - b. intranet
  - c. internet
  - d. World Wide Web
25. Which of the following is an advantage of Cascading Style Sheets (CSS)?
- a. page layout can be controlled
  - b. page presentation is not separate from page content
  - c. form data can be validated
  - d. it is uniformly supported by all browsers
26. Which of the following code fragments is most correct for matching mobile devices with screen width less than or equal to 840 pixels?
- a. `media="mobile and (max-width:841px)">`
  - b. `media="screen and (min-width:841px)">`
  - c. `media="print and (max-width:841px)">`
  - d. `media="screen and (max-width:841px)">`

27. Which one of the following best describes the main task of HTML?
- a. it allows elements on web pages to be added, deleted or changed on the fly
  - b. it displays different types of contents on webpages
  - c. it controls the presentation of the elements on web pages
  - d. it adds interactivity to web pages
28. Which one of the following best describes the usability of a website?
- a. refers only to the content of the website
  - b. is about how web developers build and maintain the website
  - c. is about the friendliness of the user interface of the website
  - d. is tested after the website is published
29. Which one of the following HTML5 elements is NOT an inline element by default?
- a. `<ul></ul>`
  - b. `<strong></strong>`
  - c. `<span></span>`
  - d. `<em></em>`
30. Which of the following HTML5 code fragments is most correct for heading elements?
- |   |   |
|---|---|
| <p>a. <code>&lt;h1&gt;Web Development&lt;/h1&gt;</code><br/><code>&lt;h2&gt;Topic 1&lt;/h2&gt;</code><br/><code>&lt;h3&gt;Topic 2&lt;/h3&gt;</code></p> <p>b. <code>&lt;h1&gt;Web Development</code><br/><code>&lt;h2&gt;Topic 1&lt;/h2&gt;</code><br/><code>&lt;h2&gt;Topic 2&lt;/h2&gt;</code><br/><code>&lt;/h1&gt;</code></p> | <p>c. <code>&lt;h2&gt;Web Development&lt;/h2&gt;</code><br/><code>&lt;h1&gt;Topic 1&lt;/h1&gt;</code><br/><code>&lt;h1&gt;Topic 2&lt;/h1&gt;</code></p> <p>d. <code>&lt;h1&gt;Web Development&lt;/h1&gt;</code><br/><code>&lt;h2&gt;Topic 1&lt;/h2&gt;</code><br/><code>&lt;h2&gt;Topic 2&lt;/h2&gt;</code></p> |
|---|---|

**Part B: Long Multiple Choice Questions****(10 marks)**

For each of the following multiple-choice questions select the single best answer. Each question is worth 2 marks.

1. Which of the following HTML codes is most correct for producing the partial page shown below?

Name

Gender ☐ Male ☐ Female

<p><b>(A)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;  &lt;form method="post" action="formtest.php"&gt;   &lt;fieldset&gt;     &lt;p&gt;       &lt;label&gt;Name&lt;/label&gt;       &lt;input type="text" name="username" /&gt;     &lt;/p&gt;     &lt;p&gt;Gender       &lt;input type="radio" name="gender" value="M" /&gt;     &lt;/label&gt;Male&lt;/label&gt;       &lt;input type="radio" name="gender" value="F" /&gt;     &lt;/label&gt;Female&lt;/label&gt;     &lt;/p&gt;   &lt;/fieldset&gt; &lt;/form&gt; &lt;/body&gt; &lt;/html&gt;</pre>	<p><b>(B)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;  &lt;form method="post" action="formtest.php"&gt;   &lt;fieldset&gt;     &lt;p&gt;       &lt;input type="text" name="username" /&gt;       &lt;label&gt;Name&lt;/label&gt;     &lt;/p&gt;     &lt;p&gt;Gender       &lt;input type="radio" name="gender" value="M" /&gt;     &lt;/label&gt;Male&lt;/label&gt;       &lt;input type="radio" name="gender" value="F" /&gt;     &lt;/label&gt;Female&lt;/label&gt;     &lt;/p&gt;   &lt;/fieldset&gt; &lt;/form&gt; &lt;/body&gt; &lt;/html&gt;</pre>
<p><b>(C)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;  &lt;form method="post" action="formtest.php"&gt;   &lt;fieldset&gt;     &lt;p&gt;       &lt;label&gt;Name&lt;/label&gt;       &lt;input type="text" name="username" /&gt;     &lt;/p&gt;     &lt;p&gt;Gender       &lt;label&gt;Male&lt;/label&gt;       &lt;input type="radio" name="gender" value="M" /&gt;       &lt;label&gt;Female&lt;/label&gt;       &lt;input type="radio" name="gender" value="F" /&gt;     &lt;/p&gt;   &lt;/fieldset&gt; &lt;/form&gt; &lt;/body&gt; &lt;/html&gt;</pre>	<p><b>(D)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;  &lt;form method="post" action="formtest.php"&gt;   &lt;fieldset&gt;     &lt;p&gt;       &lt;label&gt;Name&lt;/label&gt;       &lt;input type="text" name="username" /&gt;     &lt;/p&gt;     &lt;p&gt;Gender       &lt;radio name="gender" value="M" /&gt;       &lt;label&gt;Male&lt;/label&gt;       &lt;radio name="gender" value="F" /&gt;       &lt;label&gt;Female&lt;/label&gt;     &lt;/p&gt;   &lt;/fieldset&gt; &lt;/form&gt; &lt;/body&gt; &lt;/html&gt;</pre>



2. Which of the following HTML codes is most correct for producing the partial page shown below?

- Apple
  1. iPhone 4
  2. iPhone 5
  3. iPhone 6
- Samsung
  1. Galaxy S3
  2. Galaxy S4
  3. Galaxy S5

<p><b>(A)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample List&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;ul&gt;     &lt;li&gt;Apple       &lt;ul&gt;         &lt;li&gt;iPhone 4&lt;/li&gt;         &lt;li&gt;iPhone 5&lt;/li&gt;         &lt;li&gt;iPhone 6&lt;/li&gt;       &lt;/ul&gt;     &lt;/li&gt;     &lt;li&gt;Samsung&lt;/li&gt;     &lt;ol&gt;       &lt;li&gt;Galaxy S3&lt;/li&gt;       &lt;li&gt;Galaxy S4&lt;/li&gt;       &lt;li&gt;Galaxy S5&lt;/li&gt;     &lt;/ol&gt;   &lt;/ul&gt; &lt;/body&gt; &lt;/html&gt;</pre>	<p><b>(B)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample List&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;ul&gt;     &lt;li&gt;Apple&lt;/li&gt;     &lt;ol&gt;       &lt;li&gt;iPhone 4&lt;/li&gt;       &lt;li&gt;iPhone 5&lt;/li&gt;       &lt;li&gt;iPhone 6&lt;/li&gt;     &lt;/ol&gt;     &lt;li&gt;Samsung       &lt;ol&gt;         &lt;li&gt;Galaxy S3&lt;/li&gt;         &lt;li&gt;Galaxy S4&lt;/li&gt;         &lt;li&gt;Galaxy S5&lt;/li&gt;       &lt;/ol&gt;     &lt;/li&gt;   &lt;/ul&gt; &lt;/body&gt; &lt;/html&gt;</pre>
<p><b>(C)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample List&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;ul&gt;     &lt;li&gt;Apple       &lt;ol&gt;         &lt;li&gt;iPhone 4&lt;/li&gt;         &lt;li&gt;iPhone 5&lt;/li&gt;         &lt;li&gt;iPhone 6&lt;/li&gt;       &lt;/ol&gt;     &lt;/li&gt;     &lt;li&gt;Samsung       &lt;ul&gt;         &lt;li&gt;Galaxy S3&lt;/li&gt;         &lt;li&gt;Galaxy S4&lt;/li&gt;         &lt;li&gt;Galaxy S5&lt;/li&gt;       &lt;/ul&gt;     &lt;/li&gt;   &lt;/ul&gt; &lt;/body&gt; &lt;/html&gt;</pre>	<p><b>(D)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample List&lt;/title&gt; &lt;/head&gt; &lt;body&gt;   &lt;ul&gt;     &lt;li&gt;Apple       &lt;ol&gt;         &lt;li&gt;iPhone 4&lt;/li&gt;         &lt;li&gt;iPhone 5&lt;/li&gt;         &lt;li&gt;iPhone 6&lt;/li&gt;       &lt;/ol&gt;     &lt;/li&gt;     &lt;li&gt;Samsung       &lt;ol&gt;         &lt;li&gt;Galaxy S3&lt;/li&gt;         &lt;li&gt;Galaxy S4&lt;/li&gt;         &lt;li&gt;Galaxy S5&lt;/li&gt;       &lt;/ol&gt;     &lt;/li&gt;   &lt;/ul&gt; &lt;/body&gt; &lt;/html&gt;</pre>

3. Which of the following HTML codes is most correct for producing the partial page shown below?

### Things you like about iPhone

☐ Design ☐ Apps ☐ Price

<p><b>(A)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;    &lt;p&gt;     &lt;form action="formtest.php" method="post"&gt; Things you like about iPhone     &lt;input type="checkbox" name="cbDesign" value="design" /&gt;Design     &lt;input type="checkbox" name="cbApps" value="apps" /&gt;Apps     &lt;input type="checkbox" name="cbPrice" value="price" /&gt;Price     &lt;/form&gt;   &lt;/p&gt;  &lt;/body&gt; &lt;/html&gt;</pre>	<p><b>(B)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;    &lt;form action="formtest.php" method="post"&gt;     &lt;p&gt;Things you like about iPhone&lt;/p&gt;     &lt;p&gt;       &lt;input type="radio" name="cbDesign" value="design" /&gt;Design       &lt;input type="radio" name="cbApps" value="apps" /&gt;Apps       &lt;input type="radio" name="cbPrice" value="price" /&gt;Price     &lt;/p&gt;   &lt;/form&gt;  &lt;/body&gt; &lt;/html&gt;</pre>
<p><b>(C)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;    &lt;form action="formtest.php" method="post"&gt;     &lt;p&gt;Things you like about iPhone&lt;/p&gt;     &lt;p&gt;       &lt;input type="checkbox" name="cbDesign" value="design" /&gt;Design       &lt;input type="checkbox" name="cbApps" value="apps" /&gt;Apps       &lt;input type="checkbox" name="cbPrice" value="price" /&gt;Price     &lt;/p&gt;   &lt;/form&gt;  &lt;/body&gt; &lt;/html&gt;</pre>	<p><b>(D)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Form&lt;/title&gt; &lt;/head&gt; &lt;body&gt;    &lt;form action="formtest.php" method="post"&gt;     &lt;p&gt;Things you like about iPhone       &lt;input type="radio" name="cbDesign" value="design" /&gt;Design       &lt;input type="checkbox" name="cbApps" value="apps" /&gt;Apps       &lt;input type="radio" name="cbPrice" value="price" /&gt;Price     &lt;/p&gt;   &lt;/form&gt;  &lt;/body&gt; &lt;/html&gt;</pre>

4. Which of the following HTML and CSS codes is most correct for producing the partial page shown below?

**This is heading 1**

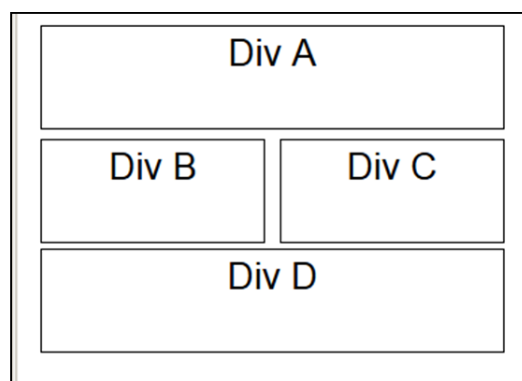
**~~This is heading 2~~**

**This is heading 3**

<p><b>(A)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Embedded CSS&lt;/title&gt;   &lt;style type="text/css"&gt;     h1 {text-decoration:line-through;}     h2 {text-decoration:underline;}     h3 {text-decoration:underline;}   &lt;/style&gt; &lt;/head&gt;  &lt;body&gt;   &lt;h1&gt;This is heading 1&lt;/h1&gt;   &lt;h2&gt;This is heading 2&lt;/h2&gt;   &lt;h3&gt;This is heading 3&lt;/h3&gt; &lt;/body&gt;  &lt;/html&gt;</pre>	<p><b>(B)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Embedded CSS&lt;/title&gt;   &lt;style type="text/css"&gt;     h1 {text-decoration:underline;}     h2 {text-decoration:underline;}     h3 {text-decoration:line-through;}   &lt;/style&gt; &lt;/head&gt;  &lt;body&gt;   &lt;h1&gt;This is heading 1&lt;/h1&gt;   &lt;h2&gt;This is heading 2&lt;/h2&gt;   &lt;h3&gt;This is heading 3&lt;/h3&gt; &lt;/body&gt;  &lt;/html&gt;</pre>
<p><b>(C)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Embedded CSS&lt;/title&gt;   &lt;style type="text/css"&gt;     h1 {text-decoration:underline;}     h2 {text-decoration:line-through;}     h3 {text-decoration:underline;}   &lt;/style&gt; &lt;/head&gt;  &lt;body&gt;   &lt;h1&gt;This is heading 1&lt;/h1&gt;   &lt;h2&gt;This is heading 2&lt;/h2&gt;   &lt;h3&gt;This is heading 3&lt;/h3&gt; &lt;/body&gt;  &lt;/html&gt;</pre>	<p><b>(D)</b></p> <pre>&lt;!DOCTYPE html&gt; &lt;html lang="en"&gt; &lt;head&gt;   &lt;meta charset="utf-8" /&gt;   &lt;title&gt;Sample Embedded CSS&lt;/title&gt;   &lt;style type="text/css"&gt;     h1 {text-decoration:underline;}     h2 {text-decoration:line-through;}     h3 {text-decoration:underline;}   &lt;/style&gt; &lt;/head&gt;  &lt;body&gt;   &lt;h1&gt;This is heading 1&lt;/h1&gt;   &lt;h2&gt;This is heading 2&lt;/h2&gt;   &lt;h3&gt;This is heading 3&lt;/h3&gt; &lt;/body&gt;  &lt;/html&gt;</pre>

5. Examine the following section of HTML5 code and the resulting web page displayed:

```
<body>
  <div id="diva">Div A</div>
  <div id="divb">Div B</div>
  <div id="divc">Div C</div>
  <div id="divd">Div D</div>
</body>
```



**Which of the following CSS markup is the most correct for producing the page shown above?**

(Assume a common border and other text and font style has already been applied)

**(A)**

```
#divb, #divc {width:48%}
#divb {float:left; }
#divc {float:right;}
#divd {clear:both;}
```

**(B)**

```
#divb #divc {width:48%}
#divb {float:left; }
#divc {float:right;}
#divd {float:none;}
```

**(C)**

```
.divb .divc {width:48%}
.divb {float:right; }
.divc {clear:both; float:right;}
.divd {float:none;}
```

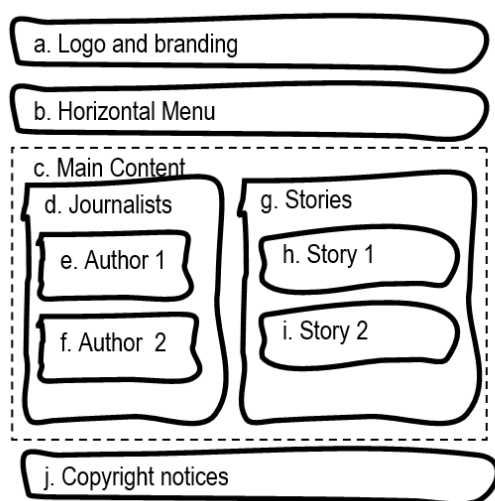
**(D)**

```
.divb, .divc {width:48%}
.divb {float:left;}
.divc {clear:left; float:right;}
.divd {float:none;}
```

**Part C: Short Answer Questions****(8 marks)**

Marks are indicated with each question. Please read the questions very carefully and avoid unrelated information.

1. Identify the most appropriate HTML5 structural elements to be used in the page mock-up design below. (5 marks)



	Element
a.	
b.	
c.	
d.	
e.	
f.	
g.	
h.	
i.	
j.	

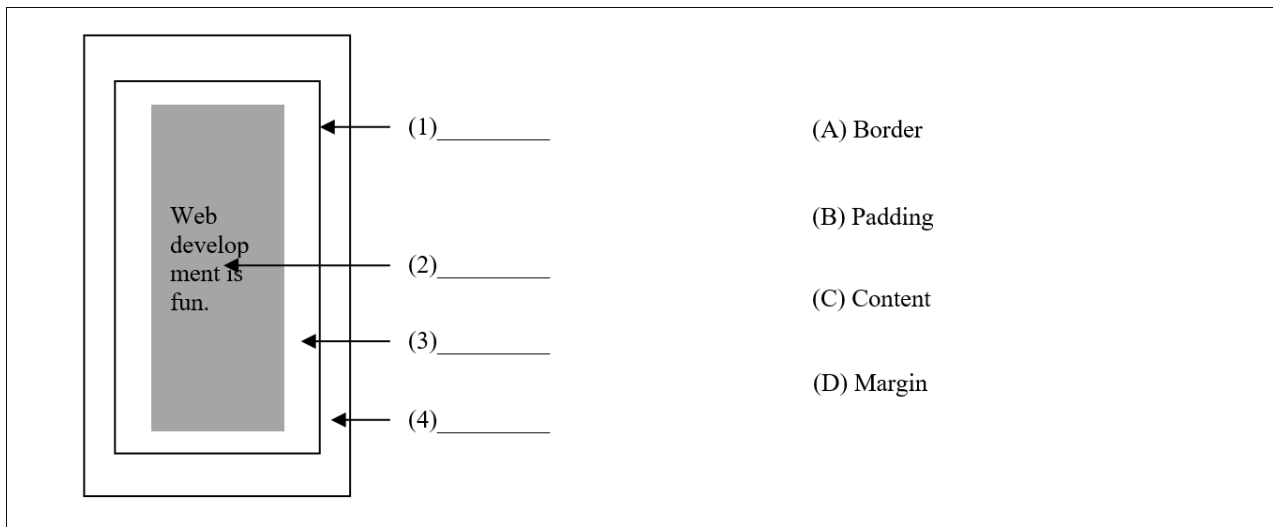
2. Given the following CSS used to present a horizontal menu using a list, provide a short explanation about what each line of code does. (3 marks)

```
#image {
    float      : left;
    width      : 35%;
    padding    : 10px 10px;
    margin     : 15px;
    border-style : solid;
}
```

**Part D: Long Answer Questions****(20 marks)**

Marks are indicated with each question. Write neatly to avoid losing marks. Please read the questions very carefully and avoid unrelated information.

1. Based on the below diagram, select from options (A), (B), (C) and (D) to complete the annotation for the HTML element. (2 marks)



2. Based on the given HTML5 and CSS code fragments, find out the number of elements selected by each of the CSS selectors. (7 marks)

```
<body>
  <nav><a href="http://www.swin.edu.au">Swinburne</a></nav>
  <article>
    <header><h1 class="red">Web Development</h1></header>
    <section id="section1">
      <header><h2 class="red">HTML5</h2></header>
      <p>HTML5</p>
    </section>
    <section>
      <header><h2 class="red">CSS</h2></header>
      <p>CSS</p>
    </section>
    <section>
      <header><h2 class="red">CSS</h2></header>
      <p>CSS</p>
    </section>
    <section>
      <header><h2 class="red">JavaScript</h2></header>
      <p>JavaScript</p>
    </section>
  </article>
  <footer>
    <a href="http://www.swin.edu.au">Copyright 2019</a>
  </footer>
</body>
```

style.css

a. section

b. #section1

c. .red

d. h2.red

e. header, p

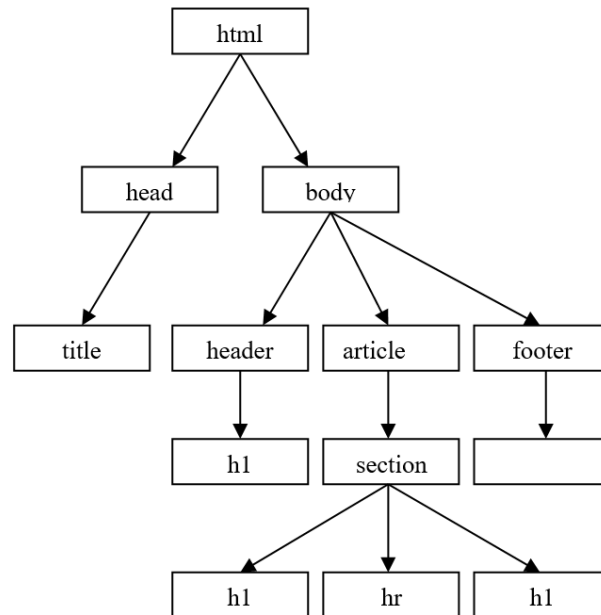
f. footer a

g. header footer

3. Complete the HTML5 for `index.html` based on the DOM diagram that describes the structure of `index.html`.

*Note: Specify only the elements and ignore the content of the elements.*

(4 marks)



`index.html`

```
<!DOCTYPE html>
```

4. The following function `compute()` increases `i` and adds `i` to `x` each time the loop iterates.

(4 marks)

```
function compute() {
    var x = 0;
    for(i=1; i<3; ++i) {
        x = x + i;
    }
}
```

- a) How many times does the loop iterate?

---

- b) Write values for `x` and `i` after each iteration. (Extra blank lines are provided)

<code>x</code>	<code>i</code>

5. Using the following HTML5 code fragment

(3 marks)

```
<body>
  <p id="main">This is a paragraph of text</p>
</body>
```

and the JavaScript code below that declares and initialises a variable `mainItem`.

```
var mainItem = document.getElementById("main");
```

**Write the JavaScript code for each of the following:**

- a. Change the HTML content of `mainItem` to " This is a new paragraph of text."

---

- b. Change `mainItem`'s CSS property "color" to "green"

---

- c. Hide `mainItem`

---



### Part E: Short Code Questions

**(32 marks)**

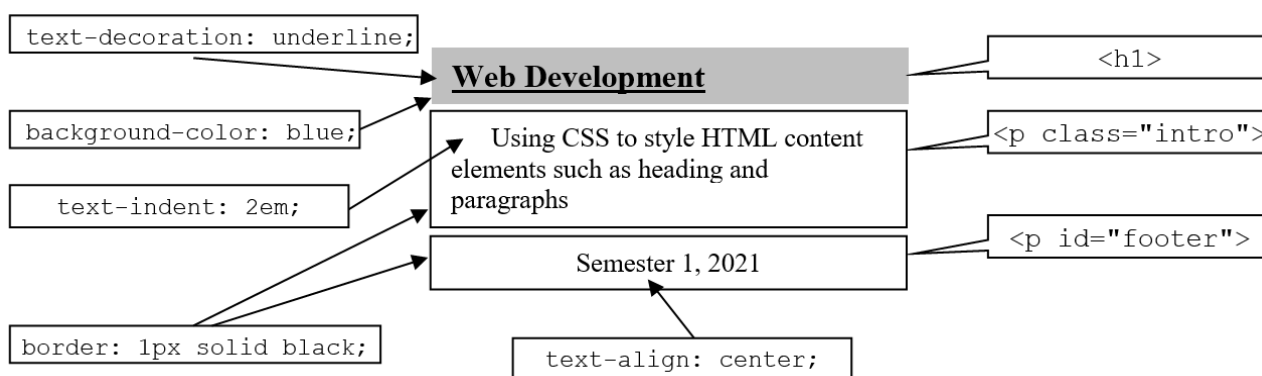
For each question in this section you need to write code. Please write neatly and clearly to avoid losing marks.

1. Consider the following annotated image of a web page. (6 marks)

Sections have been labelled with the HTML markup - elements `<h1>` and `<p>` with id and class attributes - and CSS presentation information.

**Write the appropriate CSS rules to present the webpage, including the CSS selectors.**

Make the CSS style rules as simple and as clear as possible.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

2. A client side JavaScript function called “convertScore” uses a series of IF statements to convert a numeric score parameter, in the range 0 to 100, to a grade based on the ranges described below: (5 marks)

Score	Grade
0 to below 50	Fail
50 to below 60	Pass
60 to below 70	Credit
70 to below 80	Distinction
80 to 100	High Distinction

For example:

```
var grade = convertScore(80);
```

will assign the value “High Distinction” to the variable grade.

**Complete the JavaScript by filling in the missing IF conditions below.**

```
function convertScore(score) {  
    var grade = "";  
    if (_____) {  
        grade = "Fail";  
    } else if (_____) {  
        grade = "Pass";  
    } else if (_____) {  
        grade = "Credit";  
    } else if (_____) {  
        grade = "Distinction";  
    } else if (_____) {  
        grade = "High Distinction";  
    } else {  
        grade = "Invalid Number";  
    }  
    return grade;  
}
```

a) Create the HTML form as shown below, using appropriate HTML form and input elements.

The form uses the POST submission method and the data is to be processed by a server side script whose URL is <http://www.swin.edu.au/wd/scripts/regform.php>.

# Registration Form

Name\*

Email\*

\* Required fields

Submit

*Do not write the entire HTML page – just the code fragment needed for the complete form shown above. Include any id or class attributes you may need to enable the JavaScript in Question 3b to access your HTML elements.*

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

- The validation of the form data must check that:
  - Name and Email must not be blank
  - Name must be at least two characters long
  - Email contains at least one '@' symbol
- If there are any errors, show an alert with a message relevant to the first error, and set the focus on the first input box that contains the error.
- Return `true` if the form data are okay, and `false` if not.
- You must decide what validation tests are appropriate for the form data.

*Write the entire function that validates the form data, including how variables are declared and initialised.*

```
function validateForm() {
```

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

**END OF EXAM PAPER**