



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)
Academic Year 2013/2014 – 1st Year Examination – Semester 1

IT1305 – Web Application Development I
Multiple Choice Question Paper

23rd March 2014
(TWO HOUR)

Important Instructions:

- The duration of the paper is **2 (two) hours**.
- The medium of instruction and questions is English.
- The paper has **50 questions** and **16 pages**.
- All questions are of the MCQ (Multiple Choice Questions) type.
- All questions should be answered.
- Each question will have 5 (five) choices with **one or more** correct answers.
- All questions will carry equal marks.
- There will be a penalty for incorrect responses to discourage guessing.
- The mark given for a question will vary from 0 (*All the incorrect choices are marked & no correct choices are marked*) to +1 (*All the correct choices are marked & no incorrect choices are marked*).
- Answers should be marked on the special answer sheet provided.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.
- Mark the correct choices on the question paper first and then transfer them to the given answer sheet which will be machine marked. **Please completely read and follow the instructions given on the other side of the answer sheet before you shade your correct choices.**

1) Which of the following statement(s) is/are **true** with respect to the Internet?

- (a) The Internet has no centralized governance in either technological implementation or policies for access and usage.
- (b) Internet is a particular global computer network connecting millions of computing devices.
- (c) The term World Wide Web can be used to refer to the Internet.
- (d) The Internet Protocol address space and the Domain Name System, are managed by USA.
- (e) Tier 2 networks, large telecommunication companies exchange traffic directly with all other Tier 2 networks.

2) What does acronym TCP stand for in the standard Internet protocol suit?

- (a) Transfer Communication Program
- (b) Transmission Control Protocol
- (c) Transfer Control Program
- (d) Transfer Control Protocol
- (e) Transmission Communication Program

3) Which of the following is/are service(s) on the Internet?

- (a) Email
- (b) Cloud Storage
- (c) Instant Messaging
- (d) Voice over IP
- (e) World Wide Web

4) Which of the following websites is/are social networking website(s)?

- (a) MySpace
- (b) DropBox
- (c) YouTube
- (d) StumbleUpon
- (e) LinkedIn

5) Which of the following statement(s) is/are **true** with respect to routing?

- (a) Localcast is a routing schema.
- (b) General-purpose computers cannot forward packets and perform routing.
- (c) Routing Tables maintain a record of routes to various destinations.
- (d) Bridging is the dominant form of addressing on the Internet.
- (e) Most routing algorithms use only one network path at a time.

6) Which of the following can be intermediate node(s) in a network with respect to routing?

- (a) Bridge
- (b) Gateway
- (c) Proxy Server
- (d) Web Server
- (e) Firewall

7) Which of the following statement(s) is/are **true** with respect to URI?

- (a) URI stands for Uniform Resource Indicator.
- (b) URIs are also referred to as Uniform Resource Locators.
- (c) The *scheme* of the URI designates the underlying protocol to be used.
- (d) The *host* is the name or the IP address of the web server being accessed.
- (e) The default port of the HTTP server is 8080.

8) Which of the following statement(s) is/are **true** with respect to IP Addresses?

- (a) An IPv4 addresses consists of 16 bits.
- (b) The Unicast form of IP Addressing is available in both IPv4 and IPv6.
- (c) Unlike IPv4, IPv6 does not reserve addresses for internal or private networks.
- (d) IPv6 address scheme was developed to solve the problem of IPv4 address exhaustion.
- (e) A Public IP Address is a globally routable unicast IP address.

9) Which of the following statement(s) is/are correct in describing the World Wide Web?

- (a) Is a system of interlinked hypertext documents accessed via the Internet.
- (b) Is a collection of web pages.
- (c) Is a collection of hypertext documents accessed via any network.
- (d) Is a system which uses HTTP protocol to access hypertext documents.
- (e) Is a system of interlinked multimedia content accessed via the Internet.

10) Which of the following statement(s) is/are **true** with respect to the Document Object Model (DOM)?

- (a) The DOM is a cross-platform and language dependent interface that allows programs and scripts to dynamically access and update content, structure and style of HTML and XML documents.
- (b) All nodes except CDataSection in the DOM hierarchy inherit the Node Type.
- (c) All nodes in a DOM Level are required (mandatory).
- (d) Properties, methods and events available to a Web developer are organized into DOM Objects.
- (e) The DOM has an Exception Interface, which represents some exceptions and errors.

11) Which of the following statement(s) is/are **true** with respect to the structure of an HTML document?

- (a) An HTML document starts with the DOCTYPE element tag <DOCTYPE HTML>
- (b) The HTML element has three sub elements HEAD, BODY and SCRIPT.
- (c) The TITLE element is a sub element within the HEAD element.
- (d) The BODY element contains the actual contents of the document.
- (e) The HTML element does not have attributes.

12) Which of the following statement(s) is/are **true** with respect to Elements in HTML5?

- (a) The HEADER element is used to provide the introductory content of an HTML page.
- (b) The SCRIPT element represents a server-side script.
- (c) The H1 element is an interactive element.
- (d) The INPUT element represents an input control, if the type attribute is not in the hidden state.
- (e) The SUB element is an Interactive element.

13) Which of the following is/are inline element(s) in HTML5?

- (a)
- (b) <div>
- (c)
- (d) <h2>
- (e) <table>

Use the following HTML code to answer question numbers 14 – 20. The file name of this document is example.html and is located in the *pages* folder.

```
<html>
  <head>
    <title>Exam Sample Document</title>
  </head>
  <body>
    <h1>This is my <del>first</del>Webpage</h1>
    <p><em><strong>This is my Paragraph.</strong></em></p>
    <p>
      <a href="http://www.ucsc.lk" target="_blank">Visit UCSC!</a>
    </p>
    <table>
      <tr>
        <td colspan = "2">Text block 1</td>
      </tr>
      <tr>
        <td>Text block 2</td>
        <td>Text block 3</td>
      </tr>
      <tr>
        <td rowspan = "2">Text block 4</td>
        <td>Text block 5</td>
      </tr>
      <tr>
        <td>Text block 6</td>
      </tr>
    </table>
    
    <map name="imgmap">
      <area shape="rect" coords="0,0,50,50"
        href=../smiley_clicked.html" />
```

Continued....

```

        <area shape="circle" coords="75,75,25"
        href=../smiley_clicked2.html" />
    </map>
</body>
</html>

```

14) How does the header1 appear when the page is rendered on the screen?

- | | |
|--|--|
| (a) This is my first Webpage | (b) This is my first Webpage |
| (c) This is my Webpage | (d) This is my <i>first</i> Webpage |
| (e) This is my <u>first</u> Webpage | |

15) What will be the style of the output of the text “This is my Paragraph.”?

- | | |
|---|----------------------------------|
| (a) <i>This is my Paragraph.</i> | (b) This is my Paragraph. |
| (c) THIS IS MY PARAGRAPH. | (d) THIS IS MY PARAGRAPH. |
| (e) <i>This is my Paragraph.</i> | |

16) Which of the following statement(s) is/are true?

- | |
|--|
| (a) “This is my Paragraph” and the Hyperlink defined will appear on the same line. |
| (b) The colour of the Hyperlink will depend on the browser settings for hyperlinks. |
| (c) The Hyperlink will be displayed as www.ucsc.lk. |
| (d) The Hyperlink will open in the same window/tab. |
| (e) If the target attribute is not specified, the page attached to the Hyperlink will be opened in the same frame as it was clicked. |

17) The table defined in the document would render on screen as

- | | | | | | | | | | | | | | | | | |
|---|--------------|--|--------------|--------------|--------------|--------------|--------------|--|--------------|--------------|--------------|--|--------------|--------------|--|--------------|
| (a) | (b) | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Text block 1</td><td></td></tr> <tr><td>Text block 2</td><td>Text block 3</td></tr> <tr><td>Text block 4</td><td rowspan="2">Text block 5</td></tr> <tr><td>Text block 6</td></tr> </table> | Text block 1 | | Text block 2 | Text block 3 | Text block 4 | Text block 5 | Text block 6 | <table border="1"> <tr><td>Text block 1</td><td>Text block 2</td></tr> <tr><td colspan="2">Text block 3</td></tr> <tr><td>Text block 4</td><td>Text block 5</td></tr> <tr><td></td><td>Text block 6</td></tr> </table> | Text block 1 | Text block 2 | Text block 3 | | Text block 4 | Text block 5 | | Text block 6 |
| Text block 1 | | | | | | | | | | | | | | | | |
| Text block 2 | Text block 3 | | | | | | | | | | | | | | | |
| Text block 4 | Text block 5 | | | | | | | | | | | | | | | |
| Text block 6 | | | | | | | | | | | | | | | | |
| Text block 1 | Text block 2 | | | | | | | | | | | | | | | |
| Text block 3 | | | | | | | | | | | | | | | | |
| Text block 4 | Text block 5 | | | | | | | | | | | | | | | |
| | Text block 6 | | | | | | | | | | | | | | | |
| (c) | (d) | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td colspan="2">Text block 1</td></tr> <tr><td>Text block 2</td><td>Text block 3</td></tr> <tr><td rowspan="2">Text block 4</td><td>Text block 5</td></tr> <tr><td>Text block 6</td></tr> </table> | Text block 1 | | Text block 2 | Text block 3 | Text block 4 | Text block 5 | Text block 6 | <p>Text block 1</p> <p>Text block 2 Text block 3</p> <p>Text block 4</p> <p>Text block 6 Text block 5</p> | | | | | | | | |
| Text block 1 | | | | | | | | | | | | | | | | |
| Text block 2 | Text block 3 | | | | | | | | | | | | | | | |
| Text block 4 | Text block 5 | | | | | | | | | | | | | | | |
| | Text block 6 | | | | | | | | | | | | | | | |
| (e) | | | | | | | | | | | | | | | | |
| <p>Text block 1</p> <p>Text block 2 Text block 3</p> <p>Text block 4 Text block 5</p> <p>Text block 4 Text block 6</p> | | | | | | | | | | | | | | | | |

18) Which of the following statement(s) is/are **true** with respect to the above HTML document?

- (a) If the tag `` was replaced with the `<i></i>` tag the visual output would not be the same.
- (b) If the tag `` was replaced with the `<i></i>` tag the audio output of a screen reader of the HTML page would be different.
- (c) If the tag `` was replaced with the `` tag the visual output would not be the same.
- (d) If the tag `` was replaced with the `` tag the audio output of a screen reader of the HTML page would be different.
- (e) If the tag `` was replaced with the `<mark></mark>` tag the visual output would be the same.

19) Which of the following statement(s) is/are **true** with respect to the image in the HTML document?

- (a) The smiley.gif file is located in a folder named *images* that is at the same level in the directory structure as the folder named *pages*.
- (b) The smiley.gif file will display at 100% height and 100% width as the original image.
- (c) The “alt” attribute will load another image called “Smiley Face.gif” if smiley.gif is not found.
- (d) The smiley.gif file needs not be 100px in height and 100px in width.
- (e) The image will not display as the IMG tag is closed with the slash (`/>`).

20) Which of the following statement(s) is/are **true** with respect to image-map in the HTML document?

- (a) When the upper right quarter of the smiley.gif image is clicked the smiley_clicked.html file will be loaded to the web browser.
- (b) When the upper left quarter of the smiley.gif image is clicked the smiley_clicked.html file will be loaded to the web browser.
- (c) When the circle at the bottom left quarter is clicked the smiley_clicked1.html file will be loaded to the web browser.
- (d) A square shape and a circle will be drawn to indicate the map areas in the smiley.gif image.
- (e) The image map will create a hyperlinked circle with the centre at 75px, 75px and a radius of 25px of the image.

21) Which of the following code(s) will create the following lists on the browser?

1. Coffee

- i. Black
- ii. Milk
- iii. Cappuccino

2. Tea

- c. Black
- d. Milk
- e. Green

(a)

```
<ol><li>Coffee</li>
  <ol type = "roman">
    <li>Black</li><li>Milk</li><li>Cappuccino</li>
  </ol>
<li>Tea</li>
  <ol begin="c" type = "alphabet">
    <li>Black</li><li>Milk</li><li>Green</li>
  </ol>
</ol>
```

(b)

```
<ol><li>Coffee</li>
  <ol start="1" type = "roman">
    <li>Black</li><li>Milk</li><li>Cappuccino</li>
  </ol>
<li>Tea</li>
  <ol start="c" type = "alphabet">
    <li>Black</li><li>Milk</li><li>Green</li>
  </ol>
</ol>
```

(c)

```
<ol><li>Coffee</li>
  <ol start="1" type = "i">
    <li>Black</li><li>Milk</li><li>Cappuccino</li>
  </ol>
<li>Tea</li>
  <ol start="3" type = "a">
    <li>Black</li><li>Milk</li><li>Green</li>
  </ol>
</ol>
```

(d)

```
<ol><li>Coffee</li>
  <ol start="1" type = "i">
    <li>Black</li><li>Milk</li><li>Cappuccino</li>
  </ol>
<li>Tea</li>
  <ol start="c" type = "a">
    <li>Black</li><li>Milk</li><li>Green</li>
  </ol>
</ol>
```

(e)

```
<ol><li>Coffee</li>
  <ol type = "i">
    <li>Black</li><li>Milk</li><li>Cappuccino</li>
  </ol>
<li>Tea</li>
  <ol start="3" type = "a">
    <li>Black</li><li>Milk</li><li>Green</li>
  </ol>
</ol>
```

22) Which of the following code segment(s) will correctly add a hidden field to a form?

- (a) `<input type="hidden" name="hidden_name" value="hidden_value" visible="false">`
- (b) `<input type="hidden" name="hidden_name" value="hidden_value">`
- (c) `<input type="text" name="hidden_name" property="hidden" value="hidden_value">`
- (d) `<input type="hiddentext" name="hidden_name" value="hidden_value">`
- (e) `<input type="hiddentext" name="hidden_name" visible="false">`

23) Which of the following element(s) could be used to display a list of predefined options (auto complete) a user may want to select?

- (a) `<output>`
- (b) `<datalist>`
- (c) `<legend>`
- (d) `<list>`
- (e) `<option>`

24) Which of the following code segment(s) will correctly add a video file to an HTML document?

- (a) `<media type="video/wmv" src="myvideo.wmv" width="640" height="400">`
- (b) `<object type="video/wmv" src="myvideo.wmv" width="640" height="400">`
- (c) `<file type="video/wmv" src="myvideo.wmv" controls="true"></file>`
- (d) `<video src="myvideo.wmv" controls></video>`
- (e) `<embed src="myvideo.wmv" width="640" height="400"></embed>`

25) Which of the following statement(s) is/are **true** with respect to JavaScript?

- (a) JavaScript is a case-sensitive language.
- (b) Multi-line comments are done `/*` and ends with `*/`
- (c) JavaScript does not support Arrays of literals.
- (d) JavaScript ignores white-spaces but considers line-breaks.
- (e) The semicolon (`;`) is optional to terminate statements.

26) Which of the following code segment(s) can be used to incorporate JavaScript to the BODY element?

- (a) `<script type="text/javascript" language="javascript">`
- (b) `<body script type="text/javascript" language="javascript">`
- (c) `<script src="myscript.js">`
- (d) `<script src="myscript.js" type="text/javascript">`
- (e) `<script type="text/javascript" location="body">`

27) Which of the following code segment(s) can be used to display an Alert box during the execution of JavaScript code?

- (a) `alertbox("Hello world!");`
- (b) `alert("Hello world!");`
- (c) `popup("Hello world!");`
- (d) `var msg = "Hello world!"; alert(msg);`
- (e) `prompt("Hello world!");`

28) Which of the following statement(s) is/are **true** with respect to events of HTML forms?

- (a) `onmouseup` triggers when the mouse pointer is over an element.
- (b) `onblur` triggers when the window loses focus.
- (c) `onsubmit` triggers when any form button is clicked.
- (d) `onchange` triggers when the content of an element changes.
- (e) `onselect` triggers when a select type input element is changed.

29) Which of the following statement(s) is/are **true** with respect to the Date object in JavaScript?

- (a) `getDate()` method returns the day, month and year.
- (b) `getDay()` method returns the day of the week as a number, with Monday being 1 and Sunday being 7.
- (c) `getMonth()` method returns the month as a number, with January being 0 and December being 11.
- (d) `getFullYear()` method returns the equivalent of the year in four digits.
- (e) `getHours()` method return the hour with a value between 0 and 23.

30) Which of the following is/are method(s) of the Document object in JavaScript?

- (a) `getElementsById()`
- (b) `write()`
- (c) `close()`
- (d) `save()`
- (e) `getSize()`

Answer question numbers 31 – 36 based on the following HTML document.

```
<html>
<head>
<script>
function analyser (a,b)
{
    var flag1 = a;
    var flag2 = b;
    var number = 10;

    if (flag1 && flag2)
    {
```

Continued....

```

    number = prompt("please enter a number");
    function cal (x)
    {
        var num = x%2;
        return num;
    }
    var evenodd = cal(number);
    if (evenodd != 0)
    {
        document.write(number + " is an odd number.<br />");
    }
    else
    {
        document.write(number + " is an even number.<br />");
    }
}
else
{
    alert("At least one flag is set to false");
    document.write("<button type='submit' onclick=analyser(true,true)
id='tybutton'>Try Again</button><br />");
}
}
</script>
</head>
<body onload = analyser(false,true)>

</body>
</html>

```

31) Which of the following statement(s) is/are **true** with respect to the above code?

- (a) The variable flag1 and flag2 are string variables.
- (b) The function cal() can be accessed only within the function analyser().
- (c) The function cal() will return the remainder after dividing the value of the variable x by 2.
- (d) The $!=$ operator will return true if both values are equal.
- (e) The $\&\&$ operator will return true if both values are true.

32) What would be first displayed on the browser window?

- (a) A textbox to enter a number.
- (b) An alert box.
- (c) A submit button.
- (d) A prompt to enter a number.
- (e) The number 10.

33) What would be first displayed on the browser window if `<body onload = analyser(true,true)>` was used instead?

- | | |
|----------------------------------|---------------------------------|
| (a) A textbox to enter a number. | (b) An alert box. |
| (c) A submit button. | (d) A prompt to enter a number. |
| (e) The number 10. | |

34) What would be displayed if no number was entered in the prompt window, but the OK button was clicked?

- | |
|---|
| (a) 10 is an even number. |
| (b) 0 is an even number. |
| (c) A prompt to enter a number again. |
| (d) is an even number. |
| (e) An alert that a number was not entered. |

35) What is the name given for variables such as `a`, `b` and `x` with respect to where they appear?

- | | | |
|----------------|---------------|-------------|
| (a) Parameters | (b) Variables | (c) Parsers |
| (d) Operators | (e) Constants | |

36) What is the JavaScript function that can be used to determine if the data entered in the prompt box is a number?

- | | | |
|--------------|----------------|------------------|
| (a) Number() | (b) parseInt() | (c) parseFloat() |
| (d) eval() | (e) isNaN() | |

37) Which of the following statement(s) is/are **true** with respect to Cascading Style Sheets (CSS)?

- | |
|---|
| (a) Cascading Style Sheet is a text file with a .css extension. |
| (b) Every HTML document must have its own unique CSS file. |
| (c) In CSS a property that is applied to an element is not inherited by the child elements of that element. |
| (d) The pattern provided by CSS to indicate a style rule to be applied on specific elements is known as a selector. |
| (e) CSS can be inserted into a HTML file as an Internal Style Sheet. |

38) Which of the following statement(s) correctly link(s) a Cascading Style Sheet to a HTML document?

- | |
|--|
| (a) <code><file type="text/css" rel="stylesheet" src="sample.css"></code> |
| (b) <code><link type="text/css" rel="stylesheet" src="sample.css"></code> |
| (c) <code><link type="text/css" language="css" href="sample.css"></code> |
| (d) <code><file type="text/css" href="sample.css"></code> |
| (e) <code><link type="text/css" rel="stylesheet" href="sample.css"></code> |

39) Which of the following CSS code(s) will add a background image to the body of an HTML document?

- (a) `body { bimage: src="backgroundimage.png" }`
- (b) `body { background-image: url("backgroundimage.png"); }`
- (c) `body { background-image: src="backgroundimage.png" }`
- (d) `body { background: href="backgroundimage.png" }`
- (e) `body { background: url("backgroundimage.png"); }`

40) Which of the following statement(s) is/are **true** with respect to Cascading Style Sheets?

- (a) Multiple columns of text can be added to web pages by using CSS.
- (b) Floating boxes are not allowed in CSS.
- (c) Images as borders are not allowed in the CSS box-model.
- (d) CSS box-model allows the creation of rectangular boxes in HTML documents.
- (e) Circles can be created using the radius attribute in the box-model in CSS.

Answer question numbers 41 – 45 based on the following HTML document.

```
<html>
<head>
<style type="text/css">

{* margin: 0}

body
{
color: #FFFFFF;
background-color: gray;
font-family: sans-serif;
font-size:14pt;
}

h1 {font-size: 18pt}

p
{
font-size:12pt;
color: rgba(255,0,0,0.2);
background-color: #00FF00;
}

table
{
border-color: red yellow pink orange;
```

Continued....

```

border-style: solid;
border-width: 3px;
font-size: large;
color: #000000;
}

th
{
background-color: #FF0000;
font-weight: bold;
font-style: italic;
padding: 3px;
}

td
{
padding: 3px;
font-family: serif;
font-size: small;
}

td.code
{
font-family: serif;
color: #FFFFFF;
background-color: #0000FF;
font-size: inherit;
}

</style>
</head>
<body>
  <h1>Exam example</h1>
  <p style="background-color: rgb(255,255,0); color:
  rgba(0,0,255,1)">This is Paragraph 1</p>
  <p>This is Paragraph 2</p>
  <table>
    <tr><th>Name</th><th>Age</th></tr>
    <tr><td>Amila</td><td>35</td></tr>
    <tr><td class="code">Saman</td><td class="code">56</td></tr>
    <tr><td>Ruvan</td><td>34</td></tr>
  </table>
</body>
</html>

```

- 41) What will be the background colour and text colour respectively of Paragraph 1?
- | | | |
|--------------------|---------------------|------------------|
| (a) Green and Red | (b) Yellow and Blue | (c) Red and Blue |
| (d) Orange and Red | (e) Pink and Blue | |
- 42) What will be the Alpha level of Paragraph 2?
- | | | |
|---------|--------------|-------|
| (a) 0 | (b) 0.2 | (c) 1 |
| (d) 255 | (e) ∞ | |
- 43) What would be the colours of the left, top, right and bottom borders of the table respectively?
- | | |
|-----------------------------------|-----------------------------------|
| (a) Red, Yellow, Pink and Orange. | (b) Yellow, Pink, Orange and Red. |
| (c) Red, Pink, Yellow and Orange. | (d) Orange, Red, Yellow and Pink. |
| (e) Orange, Red, Pink and Yellow. | |
- 44) What would be the size of the text “Saman” appearing inside the table?
- | | | |
|-----------|-----------|----------|
| (a) small | (b) large | (c) 12pt |
| (d) 14pt | (e) 18pt | |
- 45) What will be the text colours respectively of header “Exam Example”, Table header, table data “Amila” and table data “Saman”?
- | | |
|------------------------------------|------------------------------------|
| (a) White, Black, Black and White. | (b) Black, White, White and Black. |
| (c) Black, Black, White and White. | (d) Black, Black, Black and Black. |
| (e) White, White, White and White. | |
- 46) Which of the following statement(s) is/are **true** with respect to XML?
- | |
|--|
| (a) XML is platform independent. |
| (b) XML provides a customized tag to format and display textual information. |
| (c) XML allows only for data sharing within the same application. |
| (d) XML focuses on presenting data similar to HTML. |
| (e) XML is a user-defined language. |
- 47) Which of the following statement(s) is/are **true** with respect to the structure of a XML document?
- | |
|---|
| (a) XML tags are not case-sensitive. |
| (b) XML documents must have starting and closing tags. |
| (c) XML documents can have multiple root elements. |
| (d) The version, encoding and standalone attributes must be in that order in a XML declaration. |
| (e) Unlike the version attribute, encoding and standalone attributes are optional. |

48) Which of the following statement(s) is/are **true** with respect to Well-formedness and Validity of XML?

- (a) A well-formed document requires that the content be properly defined, delimited and nested.
- (b) A well-formed document requires a Document Type Definition.
- (c) A well-formed document adheres to syntax rules of XML 2.0.
- (d) XML processors that encounters a violation of well-formedness must print such errors, but may continue processing.
- (e) A valid XML document has to be well-formed as well as confirm to the Document Type Definition.

49) Which of the following statement(s) is/are **true** with respect to Document Type Definition (DTD), Namespace and Schemas of XML?

- (a) A DTD provides common rules to define the presentation of the XML data.
- (b) An external reference to a DTD may be provided in a XML document.
- (c) A Namespace is used to differentiate the elements and attributes of different document types.
- (d) A Namespace has to be scoped from the root element.
- (e) Unlike DTD, XSD is a non XML based language used to describe the structure of an XML document.

50) Which of the following is/are valid XML statement(s)?

- (a)

```
<books>
  <book>
    <title>HTML 5 Black Book</title>
    <publisher>Dreamtech</publisher>
  </book>
</books>
```
- (b)

```
<n:books xmlns:n="http://www.example1.com">
  <n:book>
    <n:title>HTML 5 Black Book</n:title>
    <n:publisher>Dreamtech</n:publisher>
  </n:book>
</n:books>
<b:books xmlns:b="http://www.example2.com">>
  <b:type>eBook</b:type>
  <b:license>Copyrighted</b:license>
</b:books>
```

Continued....

(c)

```
<books>
  <book>
    <title>HTML 5 Black Book</title>
    <publisher>Dreamtech</publisher>
  </book>
</books>
```

(d)

```
<Books>
  <Book>
    <Title>HTML 5 Black Book</Title>
    <Publisher>Dreamtech</Publisher>
  </Book>
</Books>
```

(e)

```
<n:books xmlns:n="http://www.example1.com">
  <n:book>
    <n:title>HTML 5 Black Book
    <n:publisher>Dreamtech
<b:books xmlns:b="http://www.example2.com">>
  <b:type>eBook
  <b:license>Copyrighted
```
