



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)
Academic Year 2017 – 1st Year Examination – Semester 1

IT1305 – Web Application Development I
Multiple Choice Question Paper

28th May, 2017
(TWO HOUR)

Important Instructions :

- The duration of the paper is **2 (two) hour**.
- The medium of instruction and questions is English.
- The paper has **45 questions** and **10 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 is/are (an) Internet layer protocol(s) in the Internet protocol suite?

- | | | |
|----------|----------|---------|
| (a) TCP | (b) IPv6 | (c) PPP |
| (d) IPv4 | (e) HTTP | |

2) Which of the following statements is/are **true** with respect to the Internet and the World Wide Web?

- | |
|--|
| (a) The terms Internet and World Wide Web can be used to refer to the same thing. |
| (b) DNS is the acronym for Domain Name System. |
| (c) Hyperlinks may link to other related pages, downloadable files, source documents, definitions and other web resources. |
| (d) The hostname of a web server always begins with <i>www</i> . |
| (e) URI and URL may refer to the same globally unique identifier for a resource. |

3) Which of the following is/are (a) mark-up language(s) on the World Wide Web?

- | | | |
|-----------|----------------|----------|
| (a) CSS | (b) JavaScript | (c) HTML |
| (d) XHTML | (e) URI | |

4) Which of the following statements is/are **true** with respect to Domain Name Space?

- | |
|---|
| (a) The right-most label conveys the top-level domain. |
| (b) The hierarchy of domains descends from the right to the left label in the name; each label to the left specifies a subdivision or subdomain of the domain to the right. |
| (c) In <i>ucsc.cmb.ac.lk</i> , the top-level domain is <i>ac.lk</i> . |
| (d) An IP address such as 192.248.22.125 cannot be used in place of the URL <i>ucsc.cmb.ac.lk</i> . |
| (e) A hostname is a domain name that has at least one associated IP address. |

5) Which of the following is/are (an) **original generic** top-level domain(s)?

- | | | |
|----------|-----------|---------|
| (a) .com | (b) .int | (c) .lk |
| (d) .mil | (e) .info | |

6) Which of the following is/are (a) routing scheme(s) that can be used to deliver messages to two or more receivers?

- | | | |
|---------------|-------------|---------------|
| (a) unicast | (b) anycast | (c) multicast |
| (d) broadcast | (e) geocast | |

- | |
|--|
| <ul style="list-style-type: none"> (a) Source network interface card speed (b) Hop count between source and destination (c) Network delay between source and destination (d) Destination network interface card type (e) The communication cost |
|--|

```
<HTML>
<HEAD>
  <script type="text/javascript">
    function checkNodeType()
    {
      var tag=document.getElementById("P2");
      var type=tag.nodeType;
      var name=tag.nodeName;
      var att=tag.getAttribute("align");
      document.write(type + ", " + name + ", " + att);
    }
  </script>
</HEAD>
<BODY>
  <P id="P1">Text,<B> Some Text,</B> <I> More Text,</I> A bit more Text<BR/></P>
  <P id="P2" align="center" value> Welcome </P>
  <INPUT id="B1" type="button" onClick="checkNodeType();" value="Check Node">
</BODY>
</HTML>
```

- | | | |
|-----------|----------------|------------|
| (a) | (b) <I> | (c) <BODY> |
| (d) Text, | (e) Some Text, | |

- | | | |
|-------------------------|--------------------------|-----------------|
| (a) P, paragraph, align | (b) 0, paragraph, center | (c) 1, P, align |
| (d) P, <P>, center | (e) 1, P, center | |

- | | | |
|-------------|---------|-------------|
| (a) <BODY > | (b) <P> | (c) <INPUT> |
| (d)
 | (e) <I> | |

11) Which of the following statements is/are **true** with respect to HTML5 elements?

- (a) Elements and attributes are predefined in HTML.
- (b) Elements and attribute are case sensitive.
- (c) All HTML attributes are common to all HTML elements.
- (d) Attributes can be used to specify properties of an HTML element.
- (e) Attributes can be used to specify behaviour of an HTML element.

12) Which of the following statements is/are **true** with respect to HTML5 elements?

- (a) The DOCTYPE element specifies the DTD definition used by the document.
- (b) The DOCTYPE element can be contained either in the HEAD or BODY element.
- (a) The DOCTYPE element is an SGML element.
- (b) The browser checks the code according the rules in the DOCTYPE declaration.
- (c) The correct representation of the DOCTYPE element is <DOCTYPE HTML>.

13) Which of the following is/are (a) container element(s) in an HTML document?

- (a)
- (b) <TITLE>
- (c) <LINK>
- (d) <BODY>
- (e) <HR>

14) Which of the following is/are (a) metadata element(s) in an HTML document?

- (a) <HEAD>
- (b) <BODY>
- (c) <TITLE>
- (d) <SCRIPT>
- (e) <STYLE>

15) Which of the following character encodings correspond to the four characters <, >, & and ' respectively?

- (a) <, >, &, ', (b) gt, lt, amper, quote (c) < > & ';
- (d) lt, gt, amper, quote, (e) < > \$amp; "e;

16) Which of the following elements is/are required for creating a definition list in HTML5?

- (a) DL
- (b) DT
- (c) DD
- (d) DI
- (e) LI

17) Which one of the following codes correctly defines an anchor tag that can be directly navigated to using hyperlink created by the code given below?

Go to the Bottom of the Page

- (a)
- (b)
- (c)
- (d)
- (e)

Use the following HTML5 code to answer question numbers 18 – 24. The file name of this document is Example.html.

```
<HTML>
<HEAD>
<TITLE>Web Application Development Tutorials</TITLE>
</HEAD>
<BODY>
<P>
    <IMG src="./images/web_dev_tools.jpg" alt="Web Dev Tools" width="500" height="450"
    border="0" usemap="#Map">
    <MAP name="Map">
        <AREA shape="circle" coords="95,180,63" href="./pages/CSS_tutorial.html"
        target="_blank" tabindex="1">
        <AREA shape="circle" coords="419,224,61" href="../dpages/PHP_tutorial.php"
        target="_top" tabindex="2">
        <AREA shape="circle" coords="323,74,36" href="./pages/javascript_tutorial.html"
        tabindex="3">
        <AREA shape="rect" coords="127,44,244,149" href="./pages/HTML5_tutorial.html"
        target="_parent" tabindex="4">
    </MAP>
</P>
<P>Provide your feedback on the tutorial in the given form. </P>
<FORM name="feedback" method="post" action="../dpages/get_feedback.php">
    <LABEL>Name<input type="text" name="txtname" id="txtname" value="Your Name" size="20"
    tabindex="5"></LABEL><BR/>
    <LABEL>Feedback<TEXTAREA name="txtxfeedback" id="txtxfeedback" cols="45" rows="5"
    tabindex="6"></TEXTAREA></LABEL><BR/>
    <LABEL>Rate</label>
    <LABEL><input type="radio" name="radio" id="rdorate" value="rdorate1"
    tabindex="7">V.Good</LABEL>
    <LABEL><input type="radio" name="radio" id="rdorate2" value="rdorate2">Good</LABEL>
    <LABEL><input type="radio" name="radio" id="rdorate3" value="rdorate3">Average</LABEL>
    <LABEL><input type="radio" name="radio" id="rdorate4" value="rdorate4">Poor</LABEL><BR/>
    <INPUT type="submit" name="btnsubmit" id="btnsubmit" value="Submit Feedback"
    tabindex="8">
    <INPUT type="reset" name="btnreset" id="btnreset" value="Reset" tabindex="9">
</FORM>
</BODY>
</HTML>
```

- 18) When Example.html is loaded, which of the following will be displayed in the place where the image web_dev_tools.jpg should have appeared on the web browser, if the web_dev_tools.jpg is not found in the images directory?

- (a) web_dev_tools.jpg
- (b) Web Dev Tools
- (c) Image not found.
- (d) An Image icon
- (e) Error 404

- 19) What action would be invoked if coordinates (95,244) from the top left corner of the image is clicked?
- (a) Open the page PHP_tutorial.php.
(b) Open the page CSS_tutorial.html.
(c) Open the page HTML5_tutorial.html.
(d) Open the page javascript_tutorial.html.
(e) No action will be invoked.
- 20) What action would be invoked if coordinates (340,80) from the top left corner of the image is clicked?
- (a) The page will open in the current window.
(b) The page will open in the parent window.
(c) The page will open in a new window.
(d) The page will open in the top most window.
(e) No action will be invoked.
- 21) Which of the following statements is/are **true** with respect to the Example.html document if it is rendered as expected?
- (a) The *pages* folder is located in the same directory as Example.html.
(b) The *dpages* folder is located in the same directory as the parent directory of Example.html.
(c) The *images* folder is located in the same directory as the parent directory of Example.html.
(d) When the tab key is pressed for the first time a rectangle will appear with coordinates (127,44,244,149).
(e) When the tab key is pressed for the second time a circle will appear with a radius of 63 pixels.
- 22) Which of the following attributes is/are used to transmit the checked radio type to the server?
- (a) name (b) id (c) value
(d) checked (e) rdorate
- 23) Which of the following attributes is/are used to refer to the text type by a script on the server?
- (a) name (b) id (c) value
(d) text (e) input
- 24) Which of the following will be displayed in the text box with the label Name when Example.html is loaded on the web browser?
- (a) Name (b) Your Name (c) txtname
(d) text (e) txtname

25) Which of the following elements is/are used to embed programme code in an HTML5 document?

- | | | |
|----------|------------|-----------|
| (a) CODE | (b) TEXT | (c) EMBED |
| (d) CITE | (e) SCRIPT | |

26) Consider the following HTML5 code segment.

```
<ol start="5">
    <li>Bachelor of Information Technology</li>
    <li>Bachelor of Computer Science</li>
    <li>Bachelor of Information Systems</li>
</ol>
```

Which of the following would be displayed on a browser by this code?

- | | |
|-----|--|
| (a) | e. Bachelor of Information Technology
f. Bachelor of Computer Science
g. Bachelor of Information Systems |
| (b) | vi. Bachelor of Information Technology
vii. Bachelor of Computer Science
viii. Bachelor of Information Systems |
| (c) | 6. Bachelor of Information Technology
7. Bachelor of Computer Science
8. Bachelor of Information Systems |
| (d) | 5. Bachelor of Information Technology
6. Bachelor of Computer Science
7. Bachelor of Information Systems |
| (e) | V. Bachelor of Information Technology
VI. Bachelor of Computer Science
VII. Bachelor of Information Systems |

27) Which of the following is/are (an) HTML5 physical style element(s) for formatting text?

- | | | |
|--------|------------|---------|
| (a) EM | (b) STRONG | (c) SUB |
| (d) B | (e) CODE | |

28) Which of the following elements is/are used to create column headers in HTML5 tables?

- | | | |
|-------------|--------|------------|
| (a) CAPTION | (b) TH | (c) HEADER |
| (d) THEAD | (e) CH | |

29) Which of the following elements/attributes can be used to change properties of multiple columns in HTML5 tables?

- | | | |
|--------------|-------------|---------|
| (a) COLGROUP | (b) COLGRUP | (c) COL |
| (d) span | (e) colspan | |

30) Which of the following elements can be used to embed **both** audio files and video files in an HTML5 document?

- | | | |
|--------------|-------------|-------------|
| (a) <AUDIO> | (b) <VIDEO> | (c) <EMBED> |
| (d) <OBJECT> | (e) <MEDIA> | |

31) Which of the following fields is/are best suited for selecting a single option from a set of options in an HTML5 form?

- | | | |
|------------------|---------------|------------------|
| (a) Radio button | (b) Check box | (c) Dropdown box |
| (d) Text box | (e) Field set | |

32) Which of the following codes is/are (an) example(s) of Universal, Class and ID selectors respectively in CSS?

- | |
|--|
| (a) <code>.{font-family: sans-serif}, .intro{font-family: sans-serif}, #myHead{font-family: sans-serif}</code> |
| (b) <code>*{font-family: sans-serif}, h1.intro{font-family: sans-serif}, TD>b{font-family: sans-serif}</code> |
| (c) <code>.global{font-family: sans-serif}, *{font-family: sans-serif}, H1+p{font-family: sans-serif}</code> |
| (d) <code>*{font-family: sans-serif}, .intro{font-family: sans-serif}, table b{font-family: sans-serif}</code> |
| (e) <code>*{font-family: sans-serif}, h1.intro{font-family: sans-serif}, #myHead{font-family: sans-serif}</code> |

33) Which of the following is/are (a) method(s) of inserting CSS in an HTML document?

- | | | |
|----------------|-------------|---------------|
| (a) Internal | (b) Linking | (c) Importing |
| (d) Inheriting | (e) Inline | |

34) Which of the following CSS codes would display a red colour background on a web browser?

- | |
|--|
| (a) <code>Background-color:#0000FF;</code> |
| (b) <code>Background-color:rgb(255,255,0);</code> |
| (c) <code>Background-color:rgba(255,0,0,0.0);</code> |
| (d) <code>Background-color:hsla(165,35%,50%,0.0);</code> |
| (e) <code>Background-color:#FF0000;</code> |

35) Which of the following codes will display a background colour gradient from blue to white in CSS?

- | |
|--|
| (a) <code>background: -webkit-linear-gradient(top, #0000FF 90%, #FFFFFF 10%);</code> |
| (b) <code>background: -moz-linear-gradient(top, #0000FF 90%, #FFFFFF 10%);</code> |
| (c) <code>background: -webkit-gradient(linear, left top, left bottom, from(#00FF0), to(#FFFFFF));</code> |
| (d) <code>background: -moz-linear-gradient(linear, top, bottom, #0000FF, #FFFFFF);</code> |
| (e) <code>background: -webkit-linear-gradient(top, bottom, #0000FF, #FFFFFF);</code> |

36) Which of the following values may be assigned to the property background-repeat in CSS, in order to tile the entire web page with a background image?

- | | | |
|--------------|---------------|--------------|
| (a) tile | (b) repeat | (c) repeat-x |
| (d) repeat-y | (e) repeat-xy | |

37) Which of the following values may be assigned to the property font-size in CSS?

- | | | |
|---------------|-----------|---------|
| (a) xxx-small | (b) small | (c) 20% |
| (d) larger | (e) 20px | |

38) Which of the following values may be assigned to the property font-style in CSS?

- | | | |
|----------------|-------------|------------|
| (a) small-caps | (b) bold | (c) italic |
| (d) condensed | (e) Verdana | |

39) Which of the following statements is/are true with respect to JavaScript?

- | |
|---|
| (a) JavaScript can be inserted in the BODY element. |
| (b) The variables with the names "MARKS" and "marks" are similar and can be used interchangeably. |
| (c) \ is used for single line commenting. |
| (d) /* and */ is used for multiple line commenting. |
| (e) "new", "import" and "default" are reserved words. |

40) Which of the following is/are (a) special character(s) in JavaScript?

- | | | |
|--------|--------|-------|
| (a) \a | (b) \t | (c) \ |
| (d) \i | (e) \s | |

41) Which of the following is/are (an) example(s) of arithmetic, assignment, comparison and logical operators respectively in JavaScript?

- | | | |
|--------------------|------------------|----------------|
| (a) +, ++, >, ! | (b) %, =, , == | (c) /, %=, !=, |
| (d) ++, +=, !=, && | (e) *, ==, <>, ! | |

42) Which of the following codes incorporate an external JavaScript file named ext_JSfile.js into an HTML5 document?

- | |
|---|
| (a) <BODY><SCRIPT src="ext_JSfile.js" type="text/javascript"></BODY> |
| (b) <HEAD><SCRIPT src="ext_JSfile.js"></HEAD> |
| (c) <HEAD><LINK type="text/javascript" href="ext_JSfile.js"></HEAD> |
| (d) <BODY><LINK type="text/javascript" href="ext_JSfile.js"></BODY> |
| (e) <HEAD><@import type="text/javascript" src="ext_JSfile.js"></HEAD> |

43) Which of the following JavaScript commands generate popup boxes with a “Cancel” button?

- | | | |
|---------------|---------------|--------------|
| (a) alert() | (b) message() | (c) dialog() |
| (d) confirm() | (e) prompt() | |

44) What would be displayed on the web browser when the following JavaScript code is executed?

```
<HTML>
<HEAD>
</HEAD>
<BODY>
<SCRIPT type="text/javascript">
    var math=95, science=80, language=75, aesthetics=80;
    var avg = math + science + language + aesthetics/4;
    document.write("The average mark is: " + avg);
</SCRIPT>
</BODY>
</HTML>
```

- | |
|-------------------------------|
| (a) The average mark is: 82.5 |
| (b) The average mark is: 270 |
| (c) The average mark is: 82 |
| (d) The average mark is: avg |
| (e) JavaScript error. |

45) Which of the following is/are (a) JavaScript event(s) used within HTML5 forms?

- | | | |
|-----------------|----------------|--------------|
| (a) onload() | (b) onunload() | (c) onblur() |
| (d) onkeydown() | (e) onfocus() | |
