



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)
Academic Year 2018 – 1st Year Examination – Semester 1

IT1305 – Web Application Development I
Multiple Choice Question Paper

6th May, 2018
(TWO HOURS)

Important Instructions :

- The duration of the paper is **2 (two) hours**.
- The medium of instruction and questions is English.
- The paper has **45 questions** on **11 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 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 (a) application layer protocol(s) in the Internet protocol suite?

- | | | |
|----------|----------|---------|
| (a) HTTP | (b) SMTP | (c) TCP |
| (d) IPv4 | (e) POP | |

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

- | |
|--|
| (a) The World Wide Web (abbreviated WWW or the Web) is an information space where documents and other web resources are identified by Uniform Resource Locators. |
| (b) The Internet is also referred to as the World Wide Web. |
| (c) Hyperlinks embedded in web pages permit users to navigate between pages. |
| (d) The World Wide Web uses a special set of protocols rather than the protocols of the Internet protocol suite. |
| (e) “Recommendations for the Document Object Model” by W3C are a set of standards followed during development of technologies for the World Wide Web. |

3) Which of the following is/are (a) private IP address(es)?

- | | | |
|------------------|-------------------|-----------------|
| (a) 10.100.1.1 | (b) 192.168.1.100 | (c) 192.248.1.1 |
| (d) 112.135.31.1 | (e) 66.200.140.1 | |

4) Which of the following statements is/are **true** with respect to Routing schemes?

- | |
|---|
| (a) A host sending data to multiple hosts is termed as Unicast. |
| (b) In Multicast a host sending data should address each and every receiver individually. |
| (c) Broadcast is when a host sends data to all hosts in a broadcast domain. |
| (d) Broadcast can only be done to a broadcast domain. |
| (e) Geocast is when a host broadcasts to hosts in a particular geographical boundary. |

5) Which of the following is/are (a) top-level, country-code top-level and second-level domains respectively?

- | | | |
|--------------------------|--------------------------------|-------------------------------|
| (a) .com ; .lk ; .edu | (b) .org ; .au ; .ac.lk | (c) .lk ; .ac.uk ; .cmb.ac.lk |
| (d) .mil ; .in ; .edu.lk | (e) .info ; .be ; .www.ucsc.lk | |

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

- | | | |
|--------------------|-------------------|-------------------|
| (a) World Wide Web | (b) Communication | (c) Data Transfer |
| (d) Telecommuting | (e) Malware | |

7) Which of the following is/are (a) social media website(s)?

- | | | |
|-------------|-------------|-----------------|
| (a) Twitter | (b) Amazon | (c) Sourceforge |
| (d) Google+ | (e) YouTube | |

8) Which of the following is/are website(s) that directly support(s) e-commerce?

- | | | |
|---------------|--------------|----------------|
| (a) Moodle | (b) Amazon | (c) Aliexpress |
| (d) Instagram | (e) Facebook | |

9) Which of the following is/are (a) block element(s) in HTML5?

- | | | |
|----------|-----------|---------|
| (a) <p> | (b) <hr> | (c) |
| (d) <td> | (e) | |

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

- | | | |
|--------------|----------|-----------|
| (a) <table> | (b)
 | (c) <div> |
| (d) <script> | (e) <h1> | |

Use the following HTML5 code to answer question numbers 11 – 15.

```
<!doctype html>
<html>
<head>
<title>Exam Sample Document</title>
<style>
table {
    border-collapse: separate;
    width: 50%;
}
td, th {
    font-family: arial, sans-serif;
    border: 1px solid grey;
    text-align: left;
    padding: 5px;
}
tr:nth-child(even) {
    background-color: grey;
}
</style>
</head>
<body>
    <table>
    <caption>Subject Marks breakdown by Gender</caption>
    <th colspan="3">Camebridge College</th>
    <tr><td rowspan="2">Subject</td><td colspan="2">Average Mark</td></tr>
    <tr><td>Male</td><td>Female</td></tr>
    <tr><td>Mathematics</td><td>70</td><td>67</td></tr>
    <tr><td>Literature</td><td>55</td><td>63</td></tr>
    <tr><td>General Science</td><td>68</td><td>68</td></tr>
    </table>
</body>
</html>
```

11) How many rows would the above table have on the left-most side and the right-most side respectively?

- | | | |
|-------------|-------------|-------------|
| (a) 4 and 5 | (b) 3 and 4 | (c) 4 and 4 |
| (d) 5 and 6 | (e) 5 and 4 | |

12) Which of the following table contents will be in a grey cell?

- | | | |
|-----------------|---------------------|------------------|
| (a) Male | (b) Subject | (c) Average Mark |
| (d) Mathematics | (e) General Science | |

13) Which of the following is/are (an) an attribute of <table> in the HTML5 script?

- | | | |
|------------|-----------------------|-----------------|
| (a) border | (b) cellpadding | (c) cellspacing |
| (d) width | (e) None of the above | |

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

- | |
|---|
| (a) The <th> attribute colspan = "3" is a must if the table header is to span all three columns of the table. |
| (b) All text content within the <table> element will always be in font Arial. |
| (c) The <th> content will be rendered outside the table structure. |
| (d) HTML5 does not require the specification of colspan and rowspan as it automatically identifies them based on the number of <td> elements. |
| (e) The <caption> content will be rendered outside the table structure. |

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

- | |
|--|
| (a) The table will be 50% of the browser window width. |
| (b) Padding is the space between the cell border and the cell content. |
| (a) If solid was not used for border the table would be rendered without a border. |
| (b) The table border will be a single line in grey colour. |
| (c) The 1 st row will be the table header. |

16) Which of the following is/are (an) HTML5 element(s)?

- | | | |
|----------------|----------------|-------------|
| (a) <frame> | (b) <frameset> | (c) <video> |
| (d) <noframes> | (e) <article> | |

17) Which of the following tag pair(s) is/are used to add comments in HTML5 scripts?

- | | | |
|-------------------------|-----------|--------|
| (a) <!-- --> | (b) </ /> | (c) // |
| (d) <comment></comment> | (e) <! /> | |

18) Which of the following character encodings correspond to the three characters ©, ® and ™ respectively?

- | | | |
|-----------------------------|---------------------------|------------------|
| (a) &c, &r, &tm, | (b) copyr, reg, tradem, | (c) &c; &r; &tm; |
| (d) ©r, ®t, &tradem, | (e) © ® \$trade; | |

19) Which of the following statements is/are **true** with respect to lists in HTML5?

- (a) Unordered lists have a type attribute that specifies the shape of the bullet.
- (b) When unordered lists have no style specified a black circle would be the default style.
- (c) When ordered lists have no type specified roman numbers would be the default style.
- (d) Ordered lists have a type attribute to specify the list item marker.
- (e) Ordered lists have a style attribute to show the list item marker as alphabetical.

20) Which of the following is/are (an) attribute(s) that can be used to specify content of an iframe in HTML5?

- | | | |
|-------------|------------|----------|
| (a) href | (b) src | (c) link |
| (d) @import | (e) import | |

21) Which of the following is/are (a) possible value(s) for the target attribute in an anchor element?

- | | | |
|-------------|----------------------|------------|
| (a) _blank | (b) _home | (c) _first |
| (d) _parent | (e) <i>framename</i> | |

Use the following HTML5 script to answer question numbers 22 – 24.

Assume that the script is saved in a file named **sample.html**.

```
<!DOCTYPE html>
<html>
<body>
<form action="../serverpages/save.php">
  <fieldset name="Group">
    <legend>Personal information:</legend>
    First name:<br>
    <input type="text" name="firstname" value="First name">
    <br>
    Last name:<br>
    <input type="text" name="lastname" value="Last name">
    <br><br>
    Occupation:
    <br>
    <select name="occupation" size="2">
      <option value="Academic">Academic</option>
      <option value="Entrepreneur">Entrepreneur</option>
      <option value="Doctor">Doctor</option>
      <option value="Engineer">Engineer</option>
      <option value="Farmer">Farmer</option>
      <option value="Software Engineer">Software Engineer</option>
      <option value="Teacher">Teacher</option>
      <option value="Other">Other</option>
    </select>
  </fieldset>
  <input type="submit" value="Save">
</form>
</body>
</html>
```

22) Which of the following statements is/are **true** with respect to the above HTML5 script?

- (a) When the button on the page is clicked, the save.php will open in a new window.
- (b) The label displayed on the button is **submit**.
- (c) The file save.php is located in the *serverpages* directory located at the same folder as sample.html.
- (d) The text field will not contain any value.
- (e) The form will still work even though the method attribute is not specified.

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

- (a) The fieldset groups similar types of form-fields.
- (b) The submit button lies outside the fieldset grouping.
- (c) The fieldset creates a border around the form-fields.
- (d) The text “Group” is displayed at the top-left-hand corner of the fieldset grouping.
- (e) CSS cannot change the appearance of fields within a fieldset.

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

- (a) The maximum number of options allowed to be selected for occupation is two.
- (b) The default number of options allowed to be selected is one.
- (c) Multiple options selection is enabled through the multiple attribute in the select element.
- (d) Required attribute specifies that at least one option needs to be selected.
- (e) The Text within the <option></option> tags have to be the same as the value attribute of the option.

25) Which of the following methods in a HTML5 form would append form-data to the URL?

- | | | |
|------------|-------------|---------|
| (a) GET | (b) POST | (c) URL |
| (d) APPEND | (e) VISIBLE | |

26) Which of the following elements is/are used to include a quote in HTML5?

- | | | |
|------------|-------------|------------------|
| (a) <q> | (b) <quote> | (c) <blockquote> |
| (d) <cite> | (e) <abbr> | |

27) Assume that the following is the result of rendering a particular HTML5 script by a browser;

*The quick ~~red~~_{brown} **fox**^{jumped} over*

Which of the following is/are (a) set of elements used in the scripts to produce the above output?

- (a) <sub> <mark> <sup> <ins>
- (b) <i> <strike> <sub> <bg> <sup> <u>
- (c) <i> <sub> <mark> <sup> <ins>
- (d) <i> <strike> <sub> <highlight> <sup> <u>
- (e) <i> <sub> <highlight> <sup> <u>

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

- (a) <small> (b) (c)
- (d) (e) <code>

29) Which of the following attributes or methods is/are used to create a horizontal line with a line width of 5px in HTML5?

- (a) width: 5px in <style> (b) height = "5px" (c) weight = "5px"
- (d) width = "5px" (e) border-width: 5px in <style>

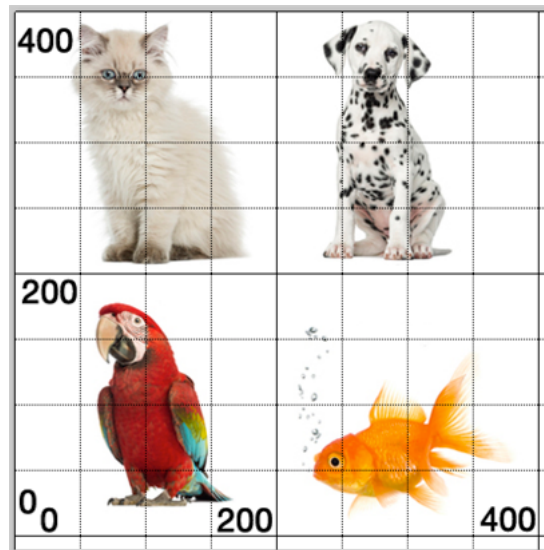
30) Which of the following file types is/are best suited for displaying an animated image in an element in HTML5?

- (a) GIF (b) JPEG (c) RAW
- (d) MOV (e) MP4

31) Which of the following attributes is/are valid for the element in HTML5?

- (a) align (b) alt (c) border
- (d) sizes (e) width

Questions 32-34 are based on the following image. Assume that the image is stored in a file with the name “pets.jpg”. The grid and the values shown above the image is a guide and the values are in pixel.



- 32) Which of the following HTML5 code segment(s) would add the above image to a webpage named example.htm located in the same folder as the image?

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

- 33) Which of the following HTML5 code segment(s) would link a defined map “petmap” over the image that creates active hyperlink areas on the image?

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

- 34) Which of the following HTML5 code segment(s) would create a map area on the image area with the cat that when clicked would link to the page with the name **cat.htm**, located in the same folder as the example.htm page?

- (a) `<map name= "petmap"><area shape = "rect" coords= "50,250,150,350" href= "cat.htm"></map>`
- (b) `<map name= "petmap"><area shape = "square" coords= "50,0,150,100" href= "cat.htm"></map>`
- (c) `<map name= "petmap"><area shape = "rectangle" coords= "50,0,150,150" href= "cat.htm"></map>`
- (d) `<map name= "petmap"><area shape = "circle" coords= "100,100,50" href= "cat.htm"></map>`
- (e) `<map name= "petmap"><area shape = "circle" coords= "100,300,50" href= "cat.htm"></map>`

35) Which of the following is/are (a) value(s) accepted in CSS for representing the colour green?

- | | | |
|-----------------------|------------------|------------|
| (a) #00FF00 | (b) Green | (c) #Green |
| (d) RGBA(0,255,0,0.0) | (e) RGB(0,255,0) | |

36) Which of the following code(s) link an external stylesheet with file name bit_style.css to an HTML5 webpage located in the same folder?

- | |
|--|
| (a) <link rel="stylesheet" type="text/css" href="bit_style.css"> |
| (b) <link rel="stylesheet" href="bit_style.css"> |
| (c) <import url="mystyle.css"> |
| (d) @import url("navigation.css"); |
| (e) @import "navigation.css"; |

37) Which of the following CSS code follows proper CSS syntax?

- | |
|--|
| (a) p { color = #0000FF, font-size = "12px" } |
| (b) h1, h2, p { color:#FF0000; text-align:left; } |
| (c) h1 { font-size:12px; text-align:center; } |
| (d) <p style="color:#000000;">A lot of text here</p> |
| (e) #para { text-align: right;} |

38) Which of the following CSS code(s) defines a class?

- | |
|---|
| (a) *text { font-family: Arial, sans-serif;} |
| (b) class:text { font-family: Arial, sans-serif;} |
| (c) .text { font-family: Arial, sans-serif;} |
| (d) p.text { font-family: Arial, sans-serif;} |
| (e) #text { font-family: Arial, sans-serif;} |

39) Consider the image given below.



Which of the following CSS codes would create this background gradient in a HTML5 page?

- | |
|--|
| (a) #fill { background: linear-gradient(to bottom right, rgba(0,0,0,1), rgba(0,0,0,0));} |
| (b) #fill { background: linear-gradient(to right, rgb(0,0,0), rgb(255,255,255));} |
| (c) #fill { background: linear-gradient(top left to bottom right,#000000,#FFFFFF);} |
| (d) #fill { background: linear-gradient(#000000,#FFFFFF);} |
| (e) #fill { background: linear-gradient(to bottom right,#000000,#FFFFFF);} |

40) Which of the following is/are (a) valid variable in JavaScript?

- | | | |
|----------|-----------|---------|
| (a) var | (b) \$var | (c) Var |
| (d) _var | (e) lvar | |

41) Which of the following is/are (a) logical operator(s) in JavaScript?

- | | | |
|---------|---------|-----|
| (a) && | (b) & | (c) |
| (d) === | (e) !== | |

42) Which of the following code(s) would define an array in JavaScript?

- | |
|--|
| (a) var weekdays = ("Mon", "Tue", "Wed", "Thu", "Fri"); |
| (b) var weekdays = Array("Mon", "Tue", "Wed", "Thu", "Fri"); |
| (c) var Address = {Number:"35", Street:"Reid Avenue", City:"Colombo", PostCode:7}; |
| (d) var weekdays = ["Mon", "Tue", "Wed", "Thu", "Fri"]; |
| (e) var weekdays = new Array("Mon", "Tue", "Wed", "Thu", "Fri"); |

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

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

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

```
<HTML>
<HEAD>
</HEAD>
<BODY>
    <P id="test">
        <SCRIPT>
            var x = 20;
            var y = 10;
            var z = x++;
            x %= y;
            y = ++y;

            document.getElementById("test").innerHTML = "x = " + x + ", y = " + y + "
            and z = " + z ;
        </SCRIPT>
    </P>
</BODY>
</HTML>
```

- | |
|------------------------------|
| (a) x = 1, y = 11 and z = 20 |
| (b) x = 2, y = 11 and z = 21 |
| (c) x = 2, y = 10 and z = 20 |
| (d) x = 1, y = 10 and z = 21 |
| (e) JavaScript error. |

45) In which of the following locations can a JavaScript code be included to be used in a HTML5 document?

- (a) Inside the Head of the document.
- (b) Inside the Body of the document.
- (c) On an external html file imported in the head of the document.
- (d) On an external html file linked in the head of the document.
- (e) On an external .js file referenced in a <script> element.
