UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)
Academic Year 2019 – 1st Year Examination – Semester 1

IT1305 – Web Application Development I
Multiple Choice Question Paper

23rd June, 2019
(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** 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.**

- Calculators are **not** allowed.

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1) Which of the following statements is/are correct regarding bookmarking of a web page?

(a) Bookmarking allows a user to enable a browser to remember the URL of interesting pages.

(b) A user can view the bookmarked pages without having to memorizing the URLs.

(c) In some browsers bookmarking functionality is given by a different name.

(d) In the Internet Explorer, user can bookmark a web page using the "Favorites" menu.

(e) They are used by search engines to rank websites.

2) Which of the following statements is/are correct regarding today's e-commerce?

(a) The Internet is the perfect vehicle for e-commerce because it is based on open standard.

(b) No other methodology or technology has proven to work as well as the Internet for distributing information and bringing people together.

(c) It's not cheap but relatively easy to use as a medium for connecting customers, suppliers, and employees of a firm.

(d) Everybody cannot access e-commerce applications.

(e) The challenge to businesses is to make transactions not just cheaper and easier for themselves but also to make it easier and more convenient for customers and suppliers.

3) Which of the following statements is/are correct regarding the following FTP commands?

(a) "lcd" is used to change the current directory of the client computer.

(b) "put" is used to copy a file from the client computer to the server computer.

(c) "mget" is used use to download multiple files from the server to the client computer.

(d) "mput" copy multiple files from the client computer to the server computer.

(e) "mkdir" makes a directory on the server computer.

4) Which of the following statements is/are correct regarding packet switching?

(a) When a computer on the Internet wants to send a long message, it divides the data into pieces or packets.

(b) Each packet sent across the Internet is labeled.

(c) Packet switching technique allows multiple computers to communicate without a delay.

(d) Packet switching systems requires additional communication software to ensure that the data is delivered.

(e) Data in the header of a packet is not used by networking hardware to direct the packet to its destination whereas the payload is extracted and used by application software.

5) Which of the following statements is/are correct regarding the Hyperlinks?

(a) A hyperlink **does not** interconnect the current web page with the other web pages available on the internet.
(b) In HTML, a user can create a hyperlink by using the anchor element (A).
(c) The hyperlink redirects the user only to another HTML page.
(d) The " A " element uses the href attribute to specify the target resource or document that user want to open when the user clicks a hyperlink
(e) The style guide defines the style of links, which is blue underlined text, while visited links are generally purple.

6) Which of the following are correct Logical Phrase Markup Tags of HTML?

(a) This is emphasized text
(b) <cite>This is cited text</cite>
(c) <samp>This is sample text</samp>
(d) <code>This is paragraph text</code>
(e) <kbd>This is bold text</kbd>

7) Which of the following tags can be used with HTML tables?

(a) <tbody>--</tbody>   (b) <th>--</th>   (c) <caption>--
                                              </caption>
(d) <tr>--</tr>   (e) <tfoot>--</tfoot>

8) Which of the following is/are correct Physical Phrase Markup Tags of HTML?

(a) <frame>--</frame>   (b) --
(c) <iframe>--</iframe>   (d) <tt>--</tt>
(e) <frameset>--</frameset>

9) Select the proper syntax of the hypertext that enables a person to jump to a specific part of a web page.

(a) Introduction and
    <h1>Introduction</h1>
(b) Introduction and
    <h1>Introduction</h1>
(c) Introduction and
    <h1>Introduction</h1>
(d) Introduction and
    <h1>Introduction</h1>
(e) Introduction and
    <h1>Introduction</h1>

10) Which of the following HTML code is syntactically correct?

```
(a) <area shape="polygon" coords="8,38,87,63" a
    href="people.html" alt=xxx>
(b) <areashape="rect" coords="8,38,20,89" href="comet02.html"
    alt=yyy >
(c) <area shape="poly" coords="8,38,87,63" src=" www.yahoo.com"
    alt=bbb >
(d) <area shape="circle" coords="8,38,60"
    href="http://www.yahoo.com" alt=bbb >
(e) <area shape="rectangular" coords="8,38,87,63"
    href="help.html" alt=bbb >
```

11) Which of the following specifies the correct order of HTML tags for creating a table?

```
(a) <table> </table> <tr> </tr> </td> </td> <caption> </caption>
(b) <caption> <table> </table> <tr> </tr> </td> </td> </caption>
(c) <table> <tr> </tr> </td> </td> <caption> </caption></table>
(d) <table> <caption> </caption><tr> <td> </td> </tr></ table>
(e) <caption> <table> </table></caption> <tr> </td> </td> </tr>
```

12) Which of the following is the correct syntax of the "src" attribute?

```
(a) <img src =../../c/ a.docx />
(b) <frameset src =left  />
(c) <area shape = rect src= a.gif />
(d) <embed src = peoplevoice.wav />
(e) <input src = abc.html />
```

13) Which of the following HTML code is correct?

```
(a) <a href="health.html" target="abc">Health</a>
(b) <iframe name= abc target=main href=abc.html/>
(c) <a href name= abc target=_blank />
(d) <iframe name= abc target=_self  href=abc.html/>
(e) <iframe src= abc target=main href=abc.html/>
```

14) Which of the following HTML tags can be inserted within `<head>` and `</head>`?

(a) `<title> <script> <meta> <frame> <frameset> <link>`
(b) `<title> <style> <meta> <frame> <frameset> <link>`
(c) `<body> <iframe> <meta> <input> <frameset> <link>`
(d) `<bgsound> <table> <style> <frame> <img> <link>`
(e) `<title> <script> <bgsound> <frame><frameset> <link>`

15) Which of the following HTML code can be used to link a web page with an external CSS file?

(a) `<href="../css/black.css" rel=" stylesheet" type="text/css" title="High Contrast" />`
(b) `<link href="black.css" rel="style  sheet" type="text/css" title="High Contrast" />`
(c) `<link href="../css/black.css" rel="stylesheet" type="css/css"  title="High Contrast" />`
(d) `<link href="../black.css" rel=" stylesheet" type="text/css" title="High Contrast" />`
(e) `<link href="../css/black.css" rel=" style" type="css/text" title="High Contrast" />`

16) Which of the following HTML tags can use "`src`" as an attribute.

(a) `<frame> <input> <img><source> <bgsound> <embed>`
(b) `<link> <Iframe> <img><source> <body> <embed>`
(c) `<source> <Iframe> <img><frame> <style> <embed>`
(d) `<meta> <Iframe> <img><source> <bgsound> <embed>`
(e) `<frame> <Iframe> <img><source> <bgsound> <embed>`

17) Which of the following statements is/are correct about CSS selectors?

(a) A selector is a pattern that is used to select an element to apply the CSS style rules.
(b) Selectors can be used as a condition or a CSS rule to determine the elements that match with the selector.
(c) The CSS rule is divided into two parts: Selectors and declaration.
(d) The declaration is a part that appears within the braces of the CSS rule followed by the selector.
(e) The rules defined in the declaration part **do not** apply to the elements specified by the selector.
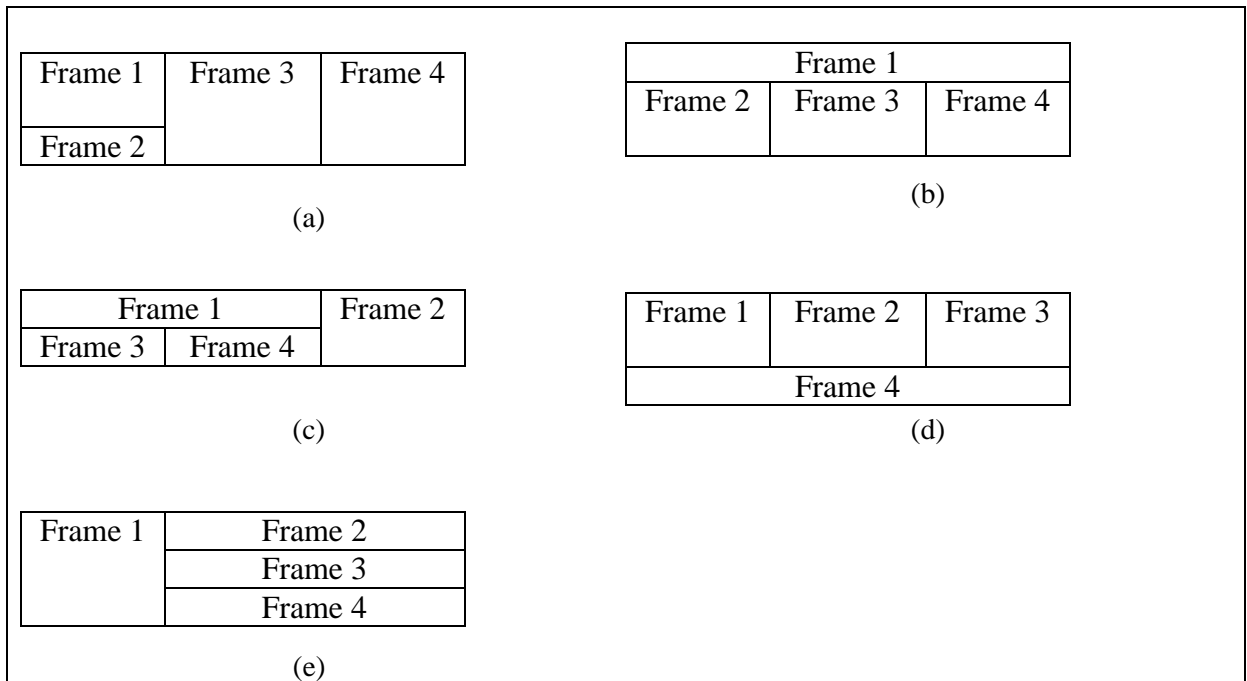
18) Which of the following HTML code is correct?

```
(a) <video width="320" height="240">   <source src="happy.mp4"
    type="video/mp4"> </video>
(b) <video width="320" height="240" controls>   <src="
    happy.mp4" type="video">  </video>
(c) <video width="320" height="240" controls>   <source src="
    happy.mp4" type="video/mp4"> </video>
(d) <video width="320" height="240" >   <src=" happy.mp4"
    type="video/mp4"> </video>
(e) <video width="320" height="240" controls> <src=" happy.mp4"
    type=" mp4"> </video>
```

19) Which of the following HTML 5 code is correct?

```
(a) <head> <base target = "blank"> <body>  <a href = "help.html"
    target="_blank"> - - </a> </head> </body>
(b) <head> <base target = "_blank"> </head> <body>  <a href =
    "help.html" /> - - </a> </body>
(c) <body>  <base target = "_blank"> <a href = "help.html"
    target="_blank" /> - - </a> </body>
(d) <head> <base target = "_blank"> </head> <a href =
    "help.html" /> - - </a>
(e) <head><a href = "help.html" target="_blank"> - - </a>
    </head>  <body>  <base target = "_blank"> </body>
```

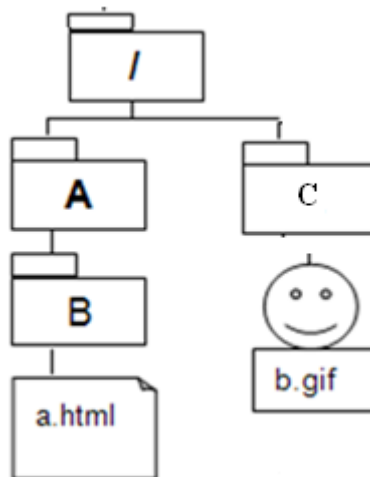20) What would be the output of the following HTML code?

```
        <frameset cols="33%,33%,33%">
          <frameset rows="*,200">
             <frame src="contents_of_frame_a.html">
             <frame src="contents_of_frame_b.html">
          </frameset>
          <frame src="contents_of_frame_c.html">
          <frame src="contents_of_frame_d.html">
        </frameset>
```

Frame 1	Frame 3	Frame 4
Frame 2		

(a)

Frame 1		
Frame 2	Frame 3	Frame 4

(b)

Frame 1		Frame 2
Frame 3	Frame 4	

(c)

Frame 1	Frame 2	Frame 3
Frame 4		

(d)

Frame 1	Frame 2
	Frame 3
	Frame 4

(e)

21) Consider the following folder structure.

Which of the following HTML syntax can be used in the web page named "a.html" to link the image named "b.gif".

```
(a) <img src=C:/../../b.gif>
(b) <img src=D: ../../c/b.gif>
(c) <img src=…/../c/b.gif>
(d) <img src=../../c/b.gif>
(e) <img src=D: ../c/../b.gif>
```

22) Which of the following is/are (a) syntactically correct inline CSS statement(s)?

```
(a) <h2 style: "color=blue; font-size=20px">Colombo </h2> "
(b) <h2 style: "color=blue";" font-size=20px">Colombo </h2>
(c) <p style="color:blue; font-type:arial">Colombo </p>
(d) <p><font color:blue; font-type:arial>Colombo</font></p>
(e) <p style="color:blue; font-size:20px">Colombo </p>
```

23) Which of the following is/are a syntactically correct embedded CSS statement/s?

```
(a) <body><style type="text/css"> h1{color:red; font-size:50px}
    p {color:green; font-size:12px} </style></body>
(b) <head><style type="css/text"> h1{color:red; font-size:50px}
    p {color:green; font-size:12px} </style></head>
(c) <head><style type="text/css"> h1{color:red; font-size:50px}
    p {color:green; font-size:12px} </style></head>
(d) <body><css type="text/style"> h1{"color:red; font-size:50px}
    p {color:green; font-size:12px"} </style></body>
(e) <body><style type="text/css"> h1{color=red; font-size=50px}
    p {color=green; font-size:12px} </style></body>
```

24) Which of the following is/are a syntactically correct CSS statement/s?

```
(a)  head1{font-size=12px; color=#aadd33; font-type}
(b)  h1,h2,h3{font-type=arial}
(c)  #para2{font-size : 12px ; border-style : double}
(d)  .para1 ul li {border-style : double }
(e)  <body> h1{ font-size : 15px ; font-type : arial} </body>
```

25) Which of the following HTML code can be used to add a link to the bookmark (Jump to "Introduction"), from another page:

```
(a) <a href="home.html , #a" name=#top> Introduction</a>
    <name=#a> <h1>Introduction</h1> </name>

(b) <a href="home.html #a"> Introduction</a> <a name=a>
    <h1>Introduction</h1> </a>

(c) <a href="home.html";"#a"> Introduction</a> <a name=a>
    <h1>Introduction</h1> </a>

(d) <a src="home.html #a"> Introduction</a> <a href=a>
    <h1>Introduction</h1> </a>

(e) <a href="home.html ; #a"> Introduction</a> <a src=a>
    <h1>Introduction</h1> </a>
```

26) Consider the following HTML 5 code.

```
<body> <table border="1">
<tfoot><tr><td colspan="4" align="center"> Numbers </td> </tr>
</tfoot>
<tbody> <tr> td>5</td> <td rowspan="2"> 6</td>
  <td colspan="2" rowspan="2>7</td> </tr>
  <tr> <td>8</td>    </tr>
  <tr> <td colspan="2">9 </td> <td> 10 </td> <td>11 </td> </tr>
</tbody>
<thead>
  <tr> <td>1</td> <td colspan="2">2<td> <td>4</td> </tr>
</thead> </table> </body>
```

What is the output of the above code?

(a)

(b)

(c)

(d)

(e)

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27) Which of the following statements is/are correct about the value of the **target** attribute of the <a> tag?

    (a) _blank; Opens the linked document in same window/tab

    (b) _self ; Opens the linked document in the same window/tab as it was clicked

    (c) _parent ;Opens the linked document in the parent frame

    (d) _top ; Opens the linked document in the full body of the window

    (e) framename - Opens the linked document in an unnamed frame

28) Which of following code segments is/are syntactically correct HTML 5 form tags?

```
(a)    <input type="number" name="points" min="0" max="100"
       step="10" value="30">

(b)    <input type="maxdate" name="bday" max="2019-01-31">

(c)    <input type="mindate" name="bday" min="2019-01-02">

(d)    <input type="text" name="fname" placeholder="First name">

(e)    <input type="week" name="week_year">
```

29) What would be the output of the following HTML code?

```
<ol type="a" start="8">
    <li>Banana</li>
        <li>Manago</li>
    <li>Apple</li>
 </ol>
```

h. Banana
i. Manago
j. Apple

a. Banana
b. Manago
c. Apple

         (a)   (b)

1. Banana
2. Manago
3. Apple

8. Banana
9. Manago
10. Apple

         (c)   (d)

VIII. Banana
IX. Manago
X. Apple

         (e)

30) Which code segments is/are syntactically correct about the meta tags of HTML?

```
(a) <meta name="description" content="Free Web tutorials" />

(b) <meta type="description" content="Free Web tutorials" />

(c) <meta input="keywords" content="HTML,CSS,XML,JavaScript" />

(d) <meta name="author" content="Nimal Perera" />

(e) <meta http-equiv="Content-Type"
    content="text/html;charset=ISO-859-1" />
```

31) Which code segments is/are correct HTML form tags?

```
(a)    <select name="fruits" multiple size="3">   <option>
    Banana</option>  <option selected> Papaya</option>
    <option>Mango</option> </select>

(b) <option name="fruits" multiple size="3">   <select>
    Banana</select>  <select selected> Papaya</select>
    <select>Mango</select> </option>

(c) <select name="fruits" size="3">   <option> Banana</option>
    <option> Papaya</option>  <option>Mango</option> </select>

(d)    <select name="fruits">   <option> Banana</option>
    <option selected> Papaya</option>  <option>Mango</option>
    </select>

(e) <select name="fruits">   <option> Banana</option>  <option>
    Papaya</option>  <option>Mango</option> </select>
```

32) Which of the following statements is/are correct about XSLT elements?

(a) "xsl:apply-imports" Specifies an element that overrides template rule.

(b) "xsl:attribute" creates a set of attributes.

(c) "xsl:attribute-set" creates an attribute node.

(d) "xsl:copy-of" copy a node from a source file to the output.

(e) "sxl: comment" generates comments in the output.

33) Which of the following statements is/are correct about the "XPath" expressions used to access nodes in an XML document?

> (a) "Node" Accesses all the child nodes of the specified nodes.
>
> (b) "/" is used for selection that starts from the root node.
>
> (c) "// element" is used to access all elements, no matter where they are in the XML document.
>
> (d) ".." is used to access the current node.
>
> (e) "//@id" is used to access the parent of the current node.

34) Which of the following statements is/are correct about XML?

> (a) XML is a replacement for HTML.
>
> (b) XML is a software and hardware independent tool for carrying information.
>
> (c) In most web applications, XML is not used to transfer data, while HTML is used to format and display the data.
>
> (d) XML allows an author to define his own tags and his own document structure.
>
> (e) XML document does not do anything. It is just pure information wrapped in tags. Someone must write a piece of software to send, receive or display it.

35) "A lot of new Internet languages are created with XML". Which of the following statements is/are correct regarding this statement?

> (a) Web Services Description Language **does not** describe available web services.
>
> (b) Wireless Application Protocol and Wireless Markup Language are markup languages for handheld devices.
>
> (c) Really Simple Syndication languages **are not** used for news feeds.
>
> (d) Portable Document Format and Web Ontology Language **do not** describe resources and ontologies.
>
> (e) Synchronized Multimedia Integration Language is used to describe multimedia for the web.

36) Which of the following statements is/are correct regarding XML Documents?

> (a) An XML documents **does not** contain a root element.
>
> (b) The elements in an XML document form a document tree. The tree starts at the root and branches to the lowest level of the tree.
>
> (c) The terms parent, child, and sibling **are not** used to describe the relationships between elements.
>
> (d) Parent elements have children. Children on the same level are called siblings.
>
> (e) All elements can have text content and attributes just like in HTML.

37) Which of the following statements is/are correct regarding the XML syntax rules?

> (a) All elements must have a closing tag.
>
> (b) XML Tags are Case Sensitive.
>
> (c) XML elements are defined using HTML tags.
>
> (d) The tag <Table> is not different from the tag <table> defined in HTML.
>
> (e) Opening and closing tags must be written with the same case.

38) Which of the following is/are XML element naming rule/s?

> (a) Names can contain letters, numbers, and other characters.
>
> (b) Names can start with a number or punctuation character.
>
> (c) Names cannot start with letters xml or XML or Xml.
>
> (d) Names can contain spaces.
>
> (e) Any name can be used, no words are reserved.

39) Which of the following is/are the best naming practices of XML?

> (a) Make names descriptive by using an underscore separator eg. <first_name>, <last_name>.
>
> (b) Names should be short and simple, like <book_title> and not <the_title_of_the_book>.
>
> (c) Avoid the "-" character. If you name something "first-name", some software may think you want to subtract name from first.
>
> (d) Avoid the "." character. If you name something "first.name," some software may think that "name" is a property of the object "first."
>
> (e) Avoid the ":" character. Colons are reserved for namespaces.

40) Which of the following is/are correct about DOM Level 2?

    (a) DOM Level 2 Core- **does not** help the programme and script to access and update the content and the structure of documents dynamically.

    (b) DOM Level 2 Events- Allows programs and scripts to dynamically access and update the content of an HTML or XML documents.

    (c) DOM Level 2 Views- **does not** allow programs and scripts to dynamically access and update the content of an HTML or XML document.

    (d) DOM Level 2 Style- **does not** allow programs and scripts to dynamically access and update the content of style sheets.

    (e) DOM Level 2 HTML- Allows programs and scripts to dynamically access and update the content and the structure of HTML 4.01 and XHTML 1.0 documents.

41) Consider the following JavaScript code:

```
<html>
    <head>
    </head>
    <body>
    <script type="text/javascript">
        var totalDistance=0, fare=0;
        do
        {
            document.write("Rs."+fare+ " for "+ totalDistance+
            " KM Distance. <br />");
            fare=fare+5;
            totalDistance=totalDistance+2;
        }
        while(totalDistance<=6);
    </script>
    </body></html>
```

What would be displayed on a browser by the above code?

Rs.0 for 5 KM Distance.

Rs.5 for 7 KM Distance.

Rs.10 for 9 KM Distance.

Rs.15 for 11 KM Distance.

(a)

Rs.0 for 0 KM Distance.

Rs.5 for 2 KM Distance.

Rs.10 for 4 KM Distance.

Rs.15 for 6 KM Distance.

(c)

Rs.2 for 2 KM Distance.

Rs.5 for 4 KM Distance.

Rs.10 for 6 KM Distance.

(e)

Rs.0 for 0 KM Distance.

Rs.5 for 5 KM Distance.

Rs.10 for 10 KM Distance.

Rs.15 for 15 KM Distance.

(b)

Rs.0 for 0 KM Distance.

Rs.2 for 5 KM Distance.

Rs.4 for 10 KM Distance.

(d)

42) Which of the following statements is/are correct about JavaScript?

(a) It is an imperative and structured language.

(b) It supports dynamic typing. This means that the type of a variable is defined according to the value stored in it.

(c) It is a functional language.

(d) It is prototype based.

(e) It is a platform independent language.

43) Which of the following statements is/are correct arithmetic operators of JavaScript ?

```
(a) =, +=, - =, * =, / =

(b) = =, !=, >, >=, <, <=

(c) +, -, *, /, %, ++, - -

(d) &&, ||, !

(e) /, %, ++, - -, * =, / =
```

44) Which of the following statements is/are correct about variables in JavaScript?

(a) A variable is a symbolic name that stores a value.

(b) The name of a variable is not its identifier.

(c) JavaScript identifiers are case-sensitive.

(d) It must begin with a letter, underscore or "$" symbol.

(e) Some examples for valid variable names are 123test, Test, sun12, $abc, and a_1$56.

45) Consider the following JavaScript code:

```
<body>
      <p id="12"></p>
          <script>
              var fruits = ["Banana", "Orange", "Apple",
              "Mango"];
              var third = fruits[3];
              document.getElementById("12").innerHTML =
              third;
          </script>
</body>
```
What would be displayed on a browser by the above code?

(a) Apple
(b) Mango
(c) Banana
(d) Orange
(e) Banana, Orange, Apple

******