

University of Ruhuna - Faculty of Technology

Bachelor of Information and Communication Technology

Level 1 (Semester 1) Examination – November 2019

Course Unit: ICT1143 Web Technologies (Theory)

Time: 2 hours

Answer all four questions

1.

- a) I) Briefly explain the difference between the internet and the www (world wide web)
II) Briefly explain the client server architecture used in Internet using a diagram.
III) List two (02) advantages and disadvantages of client server architecture.
- b) I) Expand the following abbreviations
Ex: IP: Internet Protocol
- TCP
 - WWW
 - DNS
- II) Highlight the difference between HTTP and HTTPS.
- c) Which command is used to check the connection between two computers in a network?
- d) I) What is the use of <Meta> tag in a web page?
II) Refer the following code fragment and fill in the blanks using the given list of options.

List of answer options: "Sun", sun.html, #galaxy, "Earth", "sun.png"

2.

- a) I) Write a HTML code to get the following web page in figure 1 with followings.
- "HTML Practice Exercise" is a H1 heading
 - "University of Ruhuna" is a H2 heading
 - "University of Ruhuna" is linked to <http://www.ruh.ac.lk> URL and it must be opened in a new tab

II) Explain the difference between the absolute path of link and relative path of a link using an example.

HTML Practice Exercise

University of Ruhuna.

Faculties and Departments in the University.

- Technology
 - 1. Departments
 - i. ICT
 - ii. BT
 - iii. BST
 - 4. Labs
 - 5. Server Room
- Science

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Figure 1

b) Draw the expected output of the following HTML code.

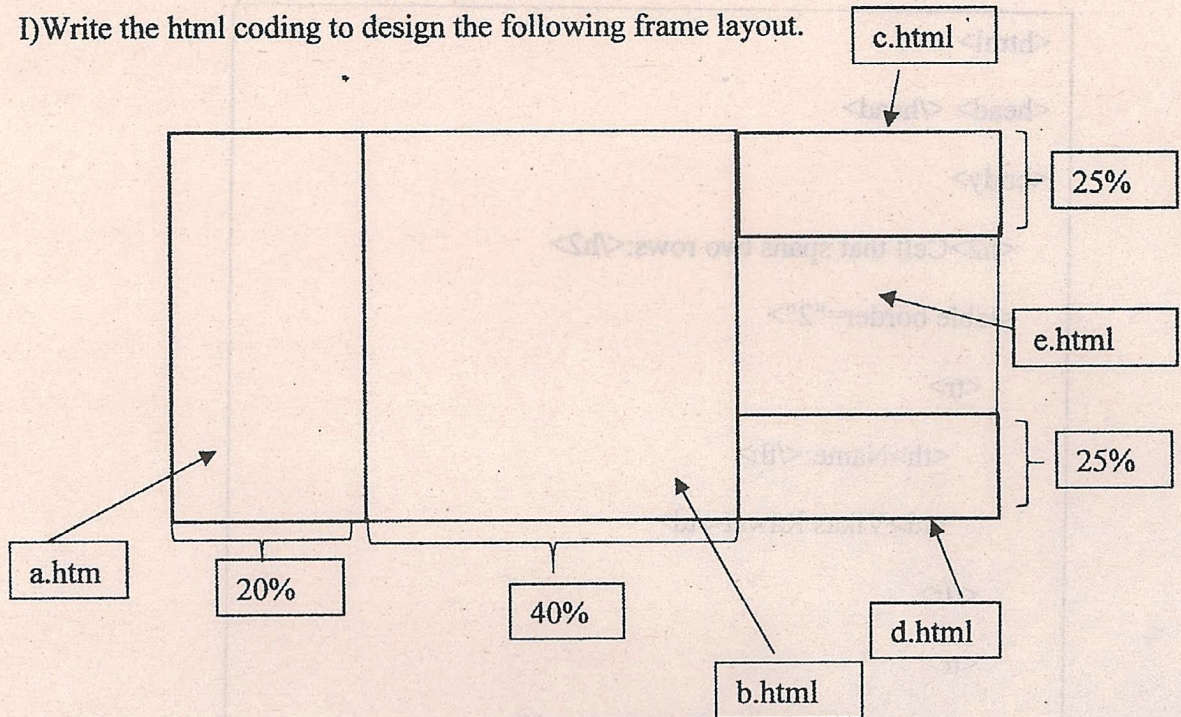
```
<html>
<head> </head>
<body>
  <h2>Cell that spans two rows:</h2>
  <table border="2">
    <tr>
      <th>Name:</th>
      <td>Vikas Rawat</td>
    </tr>
    <tr>
      <th rowspan="2">Telephone:</th>
      <td>9125577854</td>
    </tr>
    <tr>
      <td>8565557785</td>
    </tr>
  </table>
</body>
</html>
```

c) Write the code segment to add given colors to the following places,

- The document background(#FF00FF)
- The font "Faculty of Technology"(red)
- The font "Department of ICT"(rgb(255,255,0))

3.

a) I) Write the html coding to design the following frame layout.



b) I) Describe the **three (03)** ways of adding Cascading Style Sheet (CSS) to a html page with examples.

II) Write **internal style script** to include background picture to the webpage.

Refer the HTML code of the web page given below.

```
<html>
<head>
</head><body>
<h1 class="heading">Title</h1>
<p class="heading">Some paragraphs are here</p>
</body>
</html>
```

c) List **four (04)** usages of HTML DOM.

4.

a) I) Briefly describe two advantages of using JavaScript in a web page.

II) Create a HTML interface with following functionalities and add the given styles using internal styles

- Body – background color:cyan
- H1 heading - font-family:Times New Roman, font-size:45px, Color: red, position: relative, left:250px;
- Paragraph - font-size: 15px, font-family, Times New Roman;User allows to enter the amount, interest rate and the number of years and calculate the interest rate using java script function.
- Get the final output into paragraph tag.

Calculate Interest

Enter the principle amount:

Enter the rate of interest:

Enter the number of years:

b) I) Explain **three (03)** advantages of using JQuery in a web application.

II) List **four (04)** methods in JQuery by mentioning their functionalities.

III) Write the output of following code sequence.

```
<html>
<head>
<title>Exam program 2020 </title>
<script type="text/javascript">
<!--
for(var count =1;count<=10;++count){
if(count==7)
continue;
document.writeln("Count is:"+count+"<br/>");
}
document.writeln("Used continue to skip printing 7");
</script>
</head><body></body>
</html>
```

c) I) State the difference between HTML and XML.

II) Consider the following employer record. Write a suitable XML document to represent the given data.

Dr. Tharaka Jayasinghe, 1992,11,14, Female,Doctor,Rs.60000,Maharagama Cancer Hospital, Peradeniya Road, Kandy.

III) Describe the functionality of CDATA sections in an XML document.

----- End of Paper -----