University of Vavuniya

First Examination in Information Technology – 2021

First Semester – March 2023

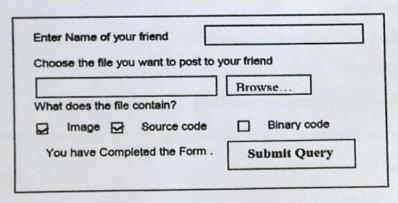### IT1144 – Fundamental of Web Programming (Theory)

Answer any Four Questions

Time Allowed : **Two hours**

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1. (a) What do you mean by the Internet?   [10%]

    (b) List down the components of the communication process and briefly describe any

       five of them.   [20%]

    (c) Define what is meant by the network topology.   [10%]

    (d) Write a short description of the following web technologies: [25%]

       i. Webpage

       ii. Website

       iii. IP address

       iv. URL (Uniform Resource Locator)

       v. Hyperlinks

    (e) Briefly describe the requirements for the Internet connection.   [20%]

    (f) Explain the purpose of each of the following the Internet-related terms: [15%]

       i. Web browser

       ii. Web server

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2. (a) List down the five features of HTTP (Hyper Text Transfer Protocol).   [10%]

   (b) State the purpose for each of the following processes used in the search engine
       work: [15%]

       i. Crawling

       ii. Indexing

       iii. Ranking

   (c) Briefly describe the five components of a web browser.   [20%]

   (d) Briefly explain the functionalities of the Internet cookies.   [15%]

   (e) Briefly discuss the difference between **Plugins** and **Extensions** in web browsers.

       [20%]

   (f) Suppose you are required to develop a website for an organisation and host it on
       a server. Describe the steps required to be followed to host the website.   [20%]

3. (a) State what is meant by an "empty" element in HTML.   [10%]

   (b) Explain the various use of Meta tags with the aid of examples.   [20%]

   (c) Describe two forms of INPUT tag with aid of an example.   [10%]

   (d) Discuss the difference between the user interface (UI) and user experience (UX).   [20%]

   (e) Write the HTML code for the following tasks:

       i. .

       ```
       Enter Name of your friend      [                    ]

       Choose the file you want to post to your friend

       [                    ]   Browse...

       What does the file contain?

       ☑  Image  ☑  Source code      ☐  Binary code

          You have Completed the Form .      Submit Query
       ```

[This question is continued on the next page]

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ii. .

```
Unordered List
    o Item1
    o Item2
    o Item3

Ordered List

    i. item1
    ii. item2
    iii. item3

Definition/Description List

div element

        - This is a block level element

span element

        - This is an inline level element.
```

[40%]

4. (a) List down the type of selectors in Cascading Style Sheet (CSS). [10%]

   (b) Briefly describe the different combinator selectors with suitable examples. [20%]

   (c) State what is meant by an attribute in HTML and describe its components. [15%]

   (d) Identify the suitable attribute with the aid of an example to attain each of the
   following task: [20%]

      i. To specify the URL of the web page and link it.

      ii. To declare the language of the Web page.

      iii. To specify the CSS rule within the element.

      iv. To associate an element with a style sheet. To make a style sheet preferred,
      set the *rel* attribute to "stylesheet" and name the style sheet with the title
      attribute.

   (e) You are required to create a web page to collect the details (title, first name,
   last name, registration number, year of study, mobile number, email address, and
   degree (IT/AMC)) for the COVID-19 vaccination. Note: The mobile number
   should be 10 characters. [35%]

5. (a) Briefly describe the five advantages of CSS. [20%]

   (b) Explain the following types of CSS syntax used in HTML. [15%]

       i. Embedded/Internal CSS

       ii. Inline CSS

       iii. External CSS

   (c) State four limitations of CSS. [15%]

   (d) Explain the difference between "visibility: **hidden**" and "display: **none**". [15%]

   (e) Write the CSS code block to accomplish each of the following tasks.

       i. Change the colour of all paragraphs to "blue".

       ii. Change the alignment of all paragraphs to "justify" and font family "verdana"

       iii. Change the colour of all paragraphs and heading_2 elements, to "red". Group the selectors to minimise the code.

       iv. Add an external style sheet with the URL "table_style.css".

       v. Set the background colour of the page as "BB78BC" using an inline style.

       vi. Set the border with size "2px" and colour "red" to the paragraph.

       vii. Set the font family for the web page to "cambria", and the font family for the heading_1 to "Arial". [35%]