



University of Vavuniya

First Examination in Information Technology – 2022

First Semester – January/February 2024

IT1144 – Fundamental of Web Programming (Theory)

Answer any Four Questions

Time Allowed : Two hours

1. (a) Briefly explain the World Wide Web (WWW). [20%]
(b) List down the communication services and briefly describe any *four* of them. [20%]
Telnet Electronic Mail IM
(c) State the purpose of using Domain Name System (DNS). [15%]
(d) Write a short description of each of the following web technologies: [25%]
 - i. Web page → *content of HTML*
 - ii. Website → *collection of web page*
 - iii. IP address → *ID → Internet Protocol → numerical*
→ unique
 - iv. Uniform Resource Locator (URL) [20%]
Locator of documents
 - v. Hyperlink → *selectable or clickable text or an image which helps to link pages each other*
- (e) Briefly describe the requirements for the Internet connection. [20%]
2. (a) Briefly describe the components of an email address with the aid of an example. [15%]
(b) State the purpose for each of the following processes used in the search engine: [15%]
 - i. Crawling → *scan*
 - ii. Indexing → *server stores data*
 - iii. Ranking → *user prefer and order*

[This question is continued on the next page]

(c) Briefly describe each of the following terms in relation to a web browser:

i. User interface

ii. The browser engine

iii. Rendering engine

(d) Define what is meant by the web server.

→ all documents are kept here

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

(f) Explain various uses of Hypertext Transfer Protocol (HTTP) with the aid of an example.

3. (a) Briefly explain why the Uniform Resource Locator (URL) is important on the internet.

(b) Explain the various uses of Meta tags with the aid of examples.

(c) State what is meant by search engine and give any two examples.

UI see
UX feel ← (d) Discuss the difference between the user interface (UI) and user experience (UX).

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

i. Print two lists with any information you want. One list should be an ordered list and the other list should be an unordered list.

ii. Create a table on a web page with the following information:

Vehicle Price		
Car	Oxford SUV	\$40,000.00
	Toyoto Axio	\$20,000.00
Bus	Toyoto coaster	\$30,000.00
	TATA	\$25,000.00

4. (a) Define the main role of Cascading Style Sheets (CSS) in the context of web development.

(b) Briefly explain how to define the style by using CSS with suitable examples.

[This question is continued on the next page]

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

(d) Briefly describe each of the following CSS selectors with suitable examples:

i. ID Selector

ii. Attribute Selector [20%]

(e) Write the CSS code block for the following link states:

i. unvisited link

ii. visited link

iii. mouse over a link

iv. selected link [20%]

(f) The CSS display property specifies how an element can be displayed. Discuss the difference between *Inline* and *Inline-block*. [20%]

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

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

i. Embedded/Internal CSS → `<body>` `<css>`

ii. Inline CSS → `<p id=...>`

iii. External CSS → `<link rel="stylesheet" href="...">`

(c) Write the CSS code block to add opacity ("0.5") for the background colour red of the `<p>` tag by using a RGB colour and set the top margin of the `<p>` tag to "20px", the bottom margin to "30px", and the left and right margins to "40px". [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 background colour of `<div>` to "ff6600" and set the top margin of the `<div>` tag to "25px", the bottom margin to "75px", and the left and right margins to "50px".

ii. Change the colour of all paragraphs and heading_1 elements to "blue". Group the selectors to minimise the code.

iii. Add an external style sheet with the URL "mystyle.css".

iv. Set the dash line border with size "2px" and colour "blue" to the paragraph.

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v. Define grid view for a tablet screen.