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**KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR**  
**SECOND YEAR, SECOND SEMESTER EXAMINATION**  
**FOR THE DIPLOMA IN INFORMATION & COMMUNICATION TECHNOLOGY**  
**DIT 1012 – INTERNET BASED PROGRAMMING**

Date: 9<sup>TH</sup> December 2024  
Time: 2:30PM – 4:30PM

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

- a) Define HTML and explain the role of the <DOCTYPE> declaration. (3 Marks)
- b) Create a basic HTML page with, head, title, body, heading 1 and one paragraph elements. Set the background colour for the heading 1 to blue with a font-size of 24px. (6 Marks)
- c) Describe the purpose of the **method** and **action** attributes as used in HTML forms. (4 Marks)
- d) Create an HTML table to display the following data about students; (5 Marks)

Student ID	Name	Faculty
1001	Aisha Mwangi	Computer Science
1002	Wanjiru Njuguna	Hospitality
1003	Amani Juma	Education

- e) Differentiate between HTML ordered and unordered lists. Provide an example of each. (4 Marks)
- f) What is a browser? Provide two examples of browsers. (2 Marks)
- g) Cite and explain three features of Javascript language. (3 Marks)
- h) Identify and explain any three TCP/IP protocols. (3 Marks)

**QUESTION TWO 20 MARKS**

- a) Write a Javascript script to display “Hello and welcome to Javascript Programming”. **Hint:** Declare a function called greetings. (6 Marks)
- b) Explain the three types of CSS highlighting their usage. (6 Marks)
- c) Explain four web security threats and solutions that can be applied to mitigate against the threats. (4 Marks)
- d) Explain the difference between HTML table colspan, and rowspan attributes. (4 Marks)

**QUESTION THREE 20 MARKS**

- a) Use HTML to create a simple login form as shown below; (6 Marks)

## Login

Username:

Password:

Login

- b) With an aid of a diagram, explain the concept of Client/Server Architecture. (4 Marks)
- c) Cite and explain three factors to consider when designing a website. (3 Marks)
- d) Explain three advantages of using CSS in a document. (3 Marks)
- e) Differentiate between an HTML tag and an HTML element giving examples of each. (4 Marks)

### **QUESTION FOUR 20 MARKS**

- a) Write an HTML code to;
  - i. To create a link to "https://www.google.com" with the text "Click Here to Search". (3 Marks)
  - ii. Display a company logo with the file name "logo.jpg" and includes the alternative text "Company Logo". Set the width to 150 pixels and the height 100 pixels. (4 Marks)
- b) Cite and explain five types of form input types. (5 Marks)
- c) Provide three key differences between Server-side scripting and Client-side scripting. Give an example of languages used in each case. (5 Marks)
- d) Differentiate between the Internet and the WWW. (3 Marks)

### **QUESTION FIVE 20 MARKS**

- a) Create an HTML form for capturing a student name, email address with a submit button. Include a fieldset and a legend to organise your input elements. (4 Marks)
- b) Write an HTML code to create the following HTML output list:
  - Cat
  - Dog
  - Parrot(4 Marks)
- c) Explain what a radio button is in HTML. How does it differ from a checkbox? (4 Marks)
- d) Describe two key differences between a basic text editor (like Notepad) and a specialized HTML editor (like Visual Studio Code). (4 Marks)
- e) Explain the function of the <title> tag in an HTML document. (2 Marks)
- f) Define the <img> tag and describe its main attributes. (2 Marks)