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UNIVERSITY EXAMINATIONS 2023/2024

SECOND YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

CIT 3250: WEB DESIGN/ INTRODUCTION TO WEB DESIGN

DATE: APRIL 2024

TIME: 2 HOURS

INSTRUCTIONS: Answer Question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

- Explain the purpose of CSS in web development. Describe the basic syntax of CSS rules and how they are applied to HTML elements. (4 Marks)
- Using examples, illustrate any 3 ways of applying color. (6 Marks)
- Name any 2 CSS frameworks. (2 Marks)
- Write a CSS to apply blue color, Sans-Serif, bold and size 15em to heading 1<h1>. (4 Marks)
- Discuss the different ways CSS can be included in a web page, including inline styles, embedded styles, and external style sheets. What are the advantages and disadvantages of each approach? (6 Marks)
- Briefly explain the importance of relative measurement such as em and percentage when applying size to an element. (4 Marks)
- Create a CSS rule that makes a link change color gradually when hovered over. (4 Marks)



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

QUESTION TWO (20 MARKS)

- a) Differentiate between id selector and class selector. (4 Marks)
- b) Write a CSS selectors to style the following elements. (6 Marks)
 - i. Style all <p> elements with a font size of 16px and a line height of 1.5.
 - ii. Style all elements with the class "button" to have a background color of #007bff and white text color.
- c) Using examples illustrate 2 ways you can style color of an element. (4 Marks)
- d) Write CSS to style a basic HTML form to improve its visual appearance. Apply styles to input fields, labels, and buttons to make the form more user-friendly and aesthetically pleasing. (6 Marks)

QUESTION THREE (20 MARKS)

- a) Write a CSS style to create three flexible columns on a web page. (4 Marks)
- b) Use examples to illustrate the following combinators. (6 Marks)
 - i. Descendant selector
 - ii. Child selector
 - iii. Adjacent
 - iv. sibling selector
- c) Using CSS, create a layout with two div elements. Apply different background colors, borders, margins, and paddings to each div to demonstrate the box model properties. (4 Marks)
- d) Reflect on your experience using CSS in web development projects. Discuss any challenges you faced and how you overcame them, as well as any tips or best practices you would recommend to other developers working with CSS. (6 Marks)

QUESTION FOUR (20 MARKS)

- a) Differentiate between the following Pseudo-Elements
 - i. p::after and p::before
 - ii. ::marker and ::selection(4 Marks)



- b) Use an example to illustrate the following web design tools. (4 Marks)
- i. Site diagram
 - ii. Wireframe diagram
- c) Explain the difference between margin, padding, border, and content properties in CSS. How do these properties contribute to the overall layout and appearance of elements on a web page? (6 Marks)
- d) Create an external CSS file and link it to an HTML document. Style the headings (<h1>, <h2>, <h3>) with different font sizes, colors, and text alignments. (6 Marks)

QUESTION FIVE (20 MARKS)

- a) Briefly explain the meaning of the following page layouts. (6 Marks)
- i. Fixed layouts
 - ii. Fluid (or liquid) layouts
 - iii. Elastic layouts
- b) Write CSS style to apply the following properties. (4 Marks)
- i. Apply color red to all elements with class "textcolor".
 - ii. Apply a shadow to all heading one <h1> elements.
- c) Use an example to illustrate the purpose of universal selector. (4 Marks)
- d) Describe the box model in CSS and explain how it influences the layout and design of web pages. Provide examples of how you can modify the box model properties to achieve specific design effects. (6 Marks)