

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE  
IN APPLIED COMPUTER SCIENCE

ACSC 226: WEB DESIGN AND DEVELOPMENT

STREAMS: BSC. APPLIED COMP SCI

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 16/04/2025

8.30 A.M. – 10.30 A.M.

**INSTRUCTIONS: Answer Question ONE and any other TWO questions**

**QUESTION ONE (30 MARKS)**

- (a) Explain reasons why an institution would need a website. [4 Marks]
- (b) Write the html code that performs the following on text:
  - i. Makes text highlighted. [2 Marks]
  - ii. Draws a line across some text. [2 Marks]
  - iii. Underlines text. [2 Marks]
- (c) Write JavaScript code to display the message “Welcome to my Website” when a button is clicked. [6 Marks]
- (d) Define the following terms:
  - i. Webserver. [2 Marks]
  - ii. Web browser. [2 Marks]
- (e) Write html code to create a table with the following features: **three rows, two columns, border of 1 pixel, width of 60% and aligned to the right.** [6 Marks]
- (f) Anabel wants to resize an image to 400 pixels by 400 pixels. Write code she can use using:
  - i. Inline CSS. [2 Marks]
  - ii. Embedded CSS. [2 Marks]

**QUESTION TWO (20 MARKS)**

- (a) Write html code that introduces the text “Chuka University” which when the user clicks, the Website of Chuka University is opened on a new window. [6 Marks]
- (b) Using JavaScript’s switch case, write a program that prompts a user to provide the number of the day of the week. The program then outputs the name of the day. [10 Marks]
- (c) Describe any four reasons why CSS is needed in web design and development. [4 Marks]

**QUESTION THREE (20 MARKS)**

- (a) Explain five considerations while using colours in web design. [5 Marks]
- (b) Write a JavaScript program that prints out the numbers below using for loop. [7 Marks]  
5  
10  
15  
20
- (c) Use CSS code to create a class known as “formatting” that makes text colour to be blue, text size 16 pixels, bold and aligned. Demonstrate the use of this class with html content. [8 Marks]

**QUESTION FOUR (20 MARKS)**

- (a) Write html code to create the form below. Ensure the layout of the form is dependent on a table. [12 Marks]

**Contact Us Form Example**

Name\*:

Phone number:

Email address\*:

Comments\*:

\* - required fields  [forms](#)

- (b) Consider a picture logo.jpg and use it as a background image for a webpage through embedded CSS. [4 Marks]
- (c) Using JavaScript code, write a program to calculate area of a circle. [4 Marks]

**QUESTION FIVE (20 MARKS)**

- (a) Write a JavaScript program that receives a user keyed input through a prompt dialog box. The program then determines if the number is an even number or an odd number and outputs a suitable response. [6 Marks]
- (b) Explain how the Schneiderman golden rules of interface design could be used when designing a registration form. [8 Marks]
- (c) Show and explain how to change colours of a hyperlink by use of CSS. [6 Marks]

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