

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF SCIENCE APPLIED COMPUTER SCIENCE**

ACSC 226: WEB DESIGN AND DEVELOPMENT

STREAMS: BSC (ACSC)

TIME: 2 HOURS

DAY/DATE: TUESDAY 07/04/2020

8.30 AM – 10.30 PM

INSTRUCTIONS:

- Answer Question **ONE** and any other **TWO** questions.
- Diagrams should be used whenever they are relevant to support an answer.
- Sketch maps and diagrams may be used whenever they help to illustrate your answer
- Do not write anything on the question paper
- This is a **closed book exam**, No reference materials are allowed in the examination room
- There will be **No** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely

SECTION A

ANSWER ALL THE QUESTIONS IN THIS SECTION

QUESTION ONE [30 MARKS]

a) Define the following web-based terms:

- | | |
|-----------------|-----------|
| i. Internet | [2 Marks] |
| ii. Web | [2 Marks] |
| iii. Protocol | [2 Marks] |
| iv. Domain Name | [2 Marks] |

b) Identify and describe the five components of a website [5 Marks]

c) Comments are an important component in programming

- i. Explain three reasons why comments are important in a web-based system [3 Marks]
 - ii. Demonstrate different ways of implementing comments in a JavaScript program. [3 Marks]
- d) Highlight for what reasons a web developer may need to use external CSS in their project. [3 Marks]
- e) Write html code to demonstrate how to:
- i. Leave space of 2 pixels between a table cell and its data contents [2 Marks]
 - ii. Leave space of 2 pixels between a table cell and another [2 Marks]
- f) A web developer would like a picture decoration.jpg to act as a background for the web page. Write code to achieve this. [4 Marks]

SECTION B

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO [20 MARKS]

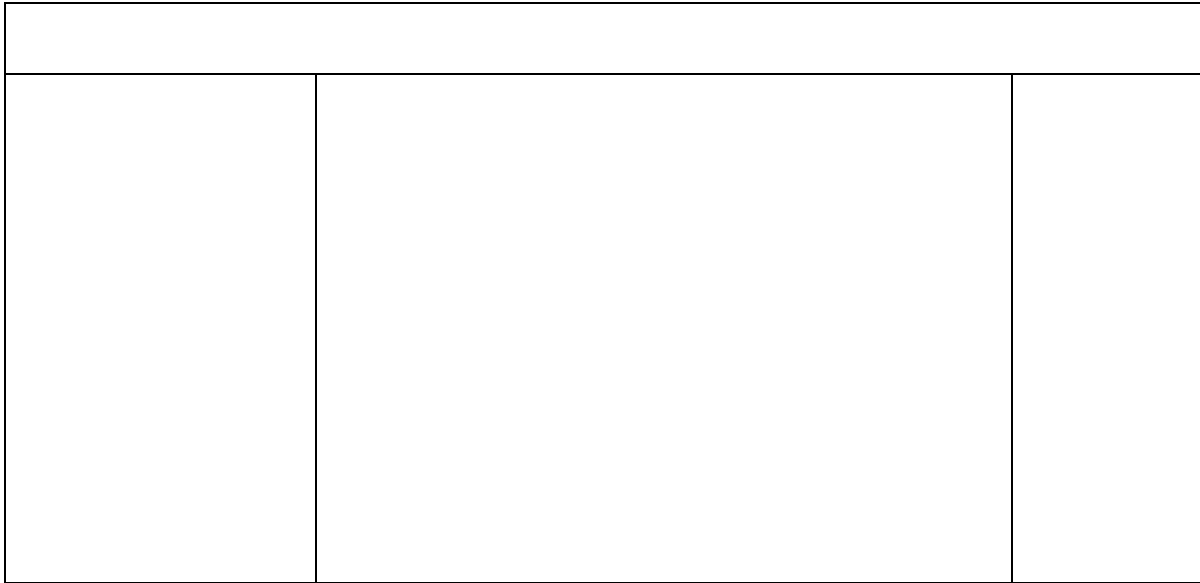
- a) A system is required that takes two integer inputs from a html form, determines which of the two is bigger than the other, then sums them and displays the output
- i. Design the front-end interface to get the two integer numbers [4 Marks]
 - ii. Write the JavaScript backend program which finds the bigger of the two numbers. [5 Marks]
 - iii. Write the JavaScript program to sum up the two numbers and output their sum. [4 Marks]
- b) Write an Internal CSS program that demonstrates the application of the Universal selector type. Explain how this type of selector works. [7 Marks]

QUESTION THREE [20 MARKS]

- a) Write html code to demonstrate how to do the following
- i. Link to an email address [2 Marks]
 - ii. Link to another page of the web through hypertext [2 Marks]
 - iii. Link to a section of the page you are in [2 Marks]

- iv. Link to another page of the google home page through an image myimage.png and let the google home page open on a new window [4 Marks]

- b) The following layout structure is needed for a webpage. Design it using CSS [8 Marks]



- c) Highlight any other two ways a web page layout could be defined apart from CSS Layout [2 Marks]

QUESTION FOUR [20 MARKS]

- a) Discuss with examples the two roles of the non-breaking space special character in a html website. [4 Marks]
- b) Through html, reproduce the following Registration Form. Use a table to define the structure of the form. [16 Marks]

Step 2: Personal Details

Registration Details

University :

Institute :

Branch :

Degree : Pursuing Completed

Avarage CPI : Upto Th Semester

Experience : Years

Your Website Or Blog :

Step 2

QUESTION FIVE [20 MARKS]

a) Marquee are a component placed on a website.

- i. Explain why marquee is used in websites. [2 Marks]
- ii. Consequently, demonstrate through html how to place a well-defined marquee on a web page. [4 Marks]
- iii. Explain what each part of your code is doing [2 Marks]

b) Functions and procedures are core components of programming.

- i. Differentiate between functions and procedures [2 Marks]
- ii. Write a JavaScript function that implents a JavaScript onBlur event [4 Marks]
- iii. Write a procedure that implements a JavaScript onClick event [4 Marks]

c) Write html code to demonstrate a nested list in html [2 Marks]
