

UNIVERSITY EXAMINATIONS

1ST SEMESTER 2022/2023 ACADEMIC YEAR

SECOND YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE (ICT)

BICT 216: WEB SYSTEMS AND TECHNOLOGIES II/COMP
214: APPLICATION DEVELOPMENT FOR THE INTERNET

STREAM: R

TIME: 2 HRS

DAY: THURS [2.30PM – 4.30PM]

DATE: 08/12/2022

THIS QUESTION PAPER CONSISTS OF FIVE (5) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.

INSTRUCTIONS: Answer Question 1 and Any Other Two.**QUESTION ONE: (30 Marks)**

- (a) scribe the following concepts: - (4 marks)
- (i) Client-side programming
 - (ii) Server-side programming
- (b) Describe the functions of the following sections of the HTML document: -
- (i) Head (2 marks)
 - (ii) Body (2 marks)
 - (iii) Style (2 marks)
 - (iv) Form (2 marks)
- (c) Using an example, describe three types of lists that are used in web design. (9 marks)
- (d) Explain the two links used in websites. (4 marks)
- (e) Define the term array and how it's declared. (2 marks)
- (f) Write the basic syntax of a PHP script and hence write the two inbuilt functions that are used to send an output to the browser from a PHP page (3 marks)

QUESTION TWO: (20 Marks)

- (a) What HTML code will bring about the following output on a web browser? (10 marks)

Members present		
	kiambu	ISA
Less than 1000 members	11/12/2022	12/12/2022
100 000 and over		14/12/2022

- (b) Write source code for HTML that will make an image called Icon2.gif into a hyperlink to a document called "Musical Icons.htm" (5 marks)
- (c) Use the code below to answer the question that follows: -

```
<form name="myForm" action="demo_form.php" onsubmit="return validateForm()"
method="post">
First name: <input type="text" name="fname">
<input type="submit" value="Submit">
</form>
```

Write javascript code for the function validateForm() to checks if the form field has been left empty generates an alert message if the field is empty and prevents the form from being submitted. (5 marks)

QUESTION THREE: (20 Marks)

- (a) You have been assigned a task to develop the login page for a company's website. Write the code that would create the form below and also the code to be used to authenticate users based on correct username and password values inside the login table under a database of employees. The user should be redirected to members.php on successful login otherwise an error message should be displayed (12 marks)

UserName:

Password

- (b) The format and structure of a website and its pages are important considerations and is easily achieved using Cascading Style Sheets (CSS). Name and discuss the three ways of using CSS in web design. (6 marks)
- (c) Give the basic structure of HTML (2 marks)

QUESTION FOUR: (20 Marks)

- (a) Write the HTML code necessary to produce the form below. The pull-down options should have: under 30, between 30 and 60, and over 60. (8 marks)

Name:

Email Address:

Gender: ☐ Male ☐ Female

Age:

Comments:

- (b) Write the PHP code that would produce the output below after the Submit button is clicked from the form created in (a) above after the user entered the following details on the form.

Name: Confucius

Email Address: c-dog@example.com

Comments: The greatest glory is not in never failing, but in rising up every time we fall.

(5 marks)

Thank you, **Confucius**, for the following comments:
The greatest glory is not in never failing, but
in rising up every time we fall.

We will reply to you at *c-dog@example.com*.

- (c) Write SQL statements required to create a database named Registration and a table called registers to store the above details from the form above. (5 marks)
- (d) Write HTML code to generate the following list. (2 marks)
- Soap
 - Sugar
 - Bread

- Milk

QUESTION FIVE: (20 Marks)

- (a) Using the form in Question 4(a), write the php code that would insert the above details in the table created in part (c) of the same question (8 marks)
- (b) Using a loop of your choice, write a php script that would produce the output below inside a pull down option as shown (5 marks)



- (c) Show using code snippets two ways one can put a server side comment (2 marks)
- (d) Kamau needs help creating a small php script that will help him compute the totals from the following details; quantity ordered is 30, price per unity=\$119.5, tax rate is 5%. The script should have an output as one displayed below. (5 marks)

You are purchasing 30 widget(s) at a cost of \$119.95 each. With tax, the total comes to \$3,778.43.