

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DIPLOMA CERTIFICATE IN COMPUTER SCIENCE

COSC 0141: INTRODUCTION TO WEB BASED PROGRAMMING

STREAMS: BED (MATHS & COMP.SCI)

TIME: 2 HOURS

DAY/DATE: TUESDAY 11/04/2023

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS:

- Answer Question ONE and any other TWO Questions
- Do not write anything on the question paper
- There will be **NO** use of mobile phones or any other unauthorized materials

SECTION A

ANSWER ALL THE QUESTIONS IN THIS SECTION

Question One (30 marks) (COMPULSORY)

(a) Write the HTML code that generates the following output (Note: the title “Names” is the caption of the table) (4 marks)

Names

First Name	Last Name	Points
Jull	Smith	50
Eve	Jackson	94

(b) Give the correct HTML tag (syntax for:

- (i) Referring to an external style sheet. (3 marks)
- (ii) Open link in a new tab/browser window (2 marks)
- (iii) Creating a numbered list of the units you registered for this semester. (3 marks)

c) In the form below:

```

<html>
<form>
.....
</form>
</html>

```

COSC 0141

- (i) Add an input field for text, with the name “username” (2 marks)
- (ii) Add a submit button with the value “Submit Form” (2 marks)
- (iii) Add two radio buttons with the name “color” (3 marks)
- (d) Using JavaScript, perform the following:
- (i) Create a variable called carName, assign the value Volvo to it (1 mark)
- (ii) Write a function display “Hello” in the inner HTML of an element with the function Name “demo()” (2 marks)
- (iii) When the button is clicked, the function “myFunction” should be executed (3 marks)
- iv. Create an object such that, person with name =John and age=50. Then, access the object to alert (“john is 50”). (3 marks)
- (e) Write a css code that applies the following formatting on a web page (2 marks)
- background color=red, font size =17 and all text center aligned.

SECTION B

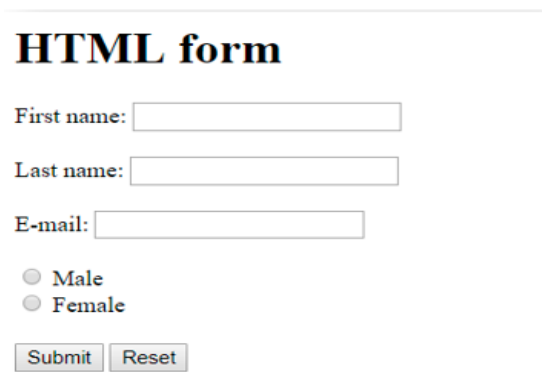
ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 MARKS)

- (a) Differentiate between HTML and CSS. (2 marks)
- (b) Explain the key distinction between HTML Elements, Tags and Attributes. (6 marks)
- (c) Explain the function of the following HTML tags. (6 marks)
- i) </style> define style
- ii) <form> define form
- iii) <hr/> define horizontal line
- (d) Describe the following concept as used in website design (6 marks)
- i) Responsive web design.
- ii) Content management systems.
- iii) Interactive web design.

QUESTION THREE [20 MARKS]

- (a) Write the HTML source code for the form below. (8 marks)



The image shows a screenshot of an HTML form. The form is titled "HTML form" in bold. It contains the following elements:

- A label "First name:" followed by a text input field.
- A label "Last name:" followed by a text input field.
- A label "E-mail:" followed by a text input field.
- Two radio buttons: "Male" and "Female".
- Two buttons: "Submit" and "Reset".

COSC 0141

- (b) i. Describe the main differences between a static and a dynamic website. (2 marks)
- ii. Which of the two would you recommend for a supermarket offering a variety of its goods for sale online (2 marks)
- (c) i. Explain what you understand by the term web hosting (2 marks)
- ii. Describe any three alternatives for hosting a newly created web application so that it can be available on the World Wide Web. (6 marks)

QUESTION FOUR [20 MARKS]

- (a) Usability is the most importance aspect in web design process. Identify and explain any four key principles of good website usability. (6 marks)
- (b) Define the term web server. (2 marks)
- (c) Explain the meaning of the following abbreviations (6 marks)
- i) URL
- ii) XHTML
- iii) HTTP
- (d) Explain any Three advantages of using PHP. (6 marks)

QUESTION FIVE (20 MARKS)

- (a) Demonstrate how one can make a connection to the MYSQL database.
[given that username = 'Admin', Password = '@admin123', my dB = 'user']. (8 marks)
- (b) List four data type used in MYSQL. (2 marks)
- (c) Discuss five factors to consider when designing user interface while referencing to Schneider man eight golden rules (10 marks)
-