



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: +254(0) 799 529 958, +254(0) 799 529 959, +254 (0)712 524 293

Website: [www.must.ac.ke](http://www.must.ac.ke) Email: [info@mucst.ac.ke](mailto:info@mucst.ac.ke)

---

## UNIVERSITY EXAMINATIONS 2023/2024

SECOND YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF  
BACHELOR OF SCIENCE IN MATHEMATICS AND COMPUTER SCIENCE

### CIT 3301:INTERNET APPLICATION PROGRAMMING

DATE: APRIL 2024

TIME: 2 HOURS

---

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

---

#### QUESTION ONE (30 MARKS)

- a) Describe the role of each of the following in web development. (4 Marks)
  - i. HTML
  - ii. CSS
  - iii. JavaScript
  - iv. PHP
- b) Use an example to illustrate the Selector and declaration parts as used in CSS. (4 Marks)
- c) Differentiate between echo and print output statements used in PHP. (4 Marks)
- d) Write a PHP script to add two numbers and display the results. (3 Marks)
- e) Use an example to illustrate the DOM structure. (3 Marks)
- f) Write a JavaScript function to change the background color of all elements which has id name "classColor". (4 Marks)
- g) Write HTML script to display the list below and use CSS to apply capital roman to number the list.
  - i. BIT
  - ii. BCS
  - iii. BMC



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

- iv. BBIT (4 Marks)
- h) Use an example to illustrate PI-IP functions to perform the following: (4 Marks)
- i. Connect to a database server
  - ii. Insert values into a table

### QUESTION TWO (20 MARKS)

- a) Use examples to describe the following 3 types of CSS. (6 Marks)
- i. Inline
  - ii. Internal
  - iii. External
- b) i. Write HTML tags to design a form to allow input of 2 numbers. (3 Marks)
- ii. Write a JavaScript function add the 2 numbers in the above form 2 b) i. and display the result on the form. (3 Marks)
- c) Write a CSS to apply blue background color, solid and 2px borders and margins of 1px. (4 Marks)
- d) Write PHP scripts to compute basic pay = hours worked \* basic pay then display the result. (4 Marks)

### QUESTION THREE (20 MARKS)

- a) Differentiate between the following CSS selectors. (4 Marks)
- i. id and class selectors
  - ii. element+element and element>element
- b) Describe the purpose of the following PI-IP codes. (6 Marks)
- i. \$query = "UPDATE salary SET empname='Peter' WHERE empno='3003'"
  - ii. \$query = "DELETE FROM salary WHERE empno='3004';"
  - iii. mysql error()
- c) Write a JavaScript to program to input base and height through prompt dialog box then compute the area of a triangle (4 Marks)

- d) Write CSS script that will change the color of a link when the user hovers, clicks or visit a links. (6 Marks)

#### QUESTION FOUR (20 MARKS)

- a) A School wishes to develop a website to allow teachers enter marks online. Design a HTML form to enter student name, mathematics, English and Kiswahili marks with appropriate form attributes to send marks to a PHP file. (6 Marks)
- b) Write a CSS to apply font family, font size, font color and shadow of your choice to all paragraph elements in a page. (4 Marks)
- c) Write HTML script to insert an image lion.jpg into a web page. (4 Marks)
- d) Write a JavaScript function that will change the image in 4 c) to a Leopard when the mouse is moved over the image. (6 Marks)

#### QUESTION FIVE (20 MARKS)

- a) Write a JavaScript function that inserts the string "Welcome to my site!" into an element with Id "para". (4 Marks)
- b) Use HTML to design the table and write a CSS that will apply different color to the first row, apply solid border to the entire table. (4 Marks)
- c) Write HTML form to enter product name, quantity and price then use JavaScript function to compute the total price. (6 Marks)
- d) Use PI-IP to insert the above details in 2 c) to a table named product in a database named Inventory with appropriate columns. (6 Marks)

