(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATIONS FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

COURSE CODE: DIT 091
COURSE TITLE: WEB DESIGN II

DATE: 17/04/2023   **TIME:** 8:00-10:00AM

INSTRUCTIONS TO CANDIDATES

Answer **Questions ONE** and **ANY OTHER TWO**.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating
This Paper Consists of 2 Pages. Please Turn Over.

QUESTION ONE (24 MARKS)

a) State the function of each of the following three languages all web developers must learn
(6 Marks)

   i)   HTML
   ii)   CSS
   iii) JavaScript

b) Explain the term JavaScript function. (2 Marks)

c) With suitable examples, show where a JavaScript is positioned within an HTML document (4 mks)

d) State FOUR (4) methods of displaying data in JavaScript. (4 Marks)

e) Explain the functions of PHP. (4 Marks)

f) Write the basic PHP syntax. (2 Marks)

g) Differentiate between GET and POST methods. (2 Marks)

QUESTION TWO (18 MARKS)

a) Write a PHP script to check if a string contains a specific string. (4 Marks)
sample string: *The quick fierce lion jumps over the lazy gazelle.*
Check whether the said string contains the string '**jumps**'

b) Explain the behavior of the HTML(specialchars) function. (4 Marks)

c) Write a PHP script that selects the id, firstname and lastname columns from the students table in a database and displays it on the page as follows (10 Marks)
id: 1 – Name: John Kamau
id: 2 – Name: Mary Mwajuma
id: 3 – Name: Omondi Njoroge
Note: *The names given are just but place holders*

QUESTION THREE (18 MARKS)

a) Explain the following PHP terms (4 Marks)
   i)   Polymorphism
   ii)   Data abstraction

b) Below is a PHP code extract which defines a class of type Books:

```php
<? Php
    Class Books{
        /*Member variables*/
        var $price;
        var $title;

        /*Member functions*/
        function setPrice($par){
            $this->price = $par;
        }
        function getPrice(){
            echo $this->price ."<br/>";
        }
        function setTitle($par){
            $this->title = $par;
        }
        function getTitle(){
            echo $this->title ." <br/>";
        }
    }
?>
```

Explain FIVE (5) parts of the code. (5 Marks)

c) Demonstrate how to create three books Maths, Physics and Chemistry using the new operations. (3 Marks)

d) Show how to set title and prices of the three books by calling member functions. (6 Marks)

QUESTION FOUR (18 MARKS)

a) The JavaScript function in the program has an error, find out the error and fix it. (6 Marks)

```
<! DOCTYPE html>
<html>
    <body>

        <p id = "demo"></p>
        <script>
            func MyFunc{
                document.getElementById("demo")
                innerHTML = "Hello World";
            }
            MyFunc()
        </script>
    </body>
</html>
```

b) Write a function in JavaScript to displaay the product of 5 * 5 (4 Marks)

c) By using examples, show how you can use the given types of selectors to style an HTML document using CSS.
  i.   class selector (2 Marks)
  ii. id selector (2 Marks)

d) Distinguish between padding and margin as used in website development (4 Marks)

QUESTION FIVE (18 MARKS)

a) What is the difference between a web site and URL? (4 Marks)

b) Explain any THREE (3) Characteristics of an Effective Website (6 Marks)

c) Identify any FOUR Elements of a web page (4 Marks)

d) Name all the parts of the following web address (4 Marks)
   https://www.mmust.ac.ke/students/portal.html
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