



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: +254 (0)799529958, +254 (0)799529959, +254 (0)712524293

Website: www.must.ac.ke Email: info@must.ac.ke

University Examinations 2023/2024

SECOND YEAR, FIRST SEMESTER EXAMINATION FOR THE DIPLOMA IN
INFORMATION TECHNOLOGY

CIT 2311: INTERNET APPLICATION DEVELOPMENT II

DATE: APRIL 2024

TIME: 1½ HOURS

INSTRUCTIONS:

1. Answer Question ONE, and any other TWO
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QUESTION ONE (30 MARKS)

- a) Define the following terms. (3 Marks)
 - i. Website.
 - ii. API
 - iii. Common Gateway Interface
- b) Explain the advantages of 3-tier architecture over the 2-tier architecture (2 Marks)
- c) Differentiate between static webpage and dynamic websites (4 Marks)
- d) State the scripting types and give examples (5 Marks)
- e) Write a simple PHP code to connect to the database using PHP (4 Marks)
- f) State two comments in PHP language. (2 Marks)
- g) Discuss three control structures in PHP giving examples (6 Marks)
- h) PHP provides forms interaction on the website. Discuss the two methods (4 Marks)



QUESTION TWO (15 MARKS)

- a) List the functions of the server and the client (2 Marks)
- b) When developing websites, it is advisable not to incorporate too many graphics and objects.
True/False? Explain. (4 Marks)
- c) Discuss two data types provided by PHP (4 Marks)
- d) PHP scripting language is an object oriented language the supports array object.
State the
THREE ways to construct array giving an example of each. (5 Marks)

QUESTION THREE (15 MARKS)

- a) Using a diagram, explain how 2-tier architecture works. (4 Marks)
- b) Write a PHP code to display all numbers from 1 to 10 (3 Marks)
- c) What is a variable in PHP? Name two rules of declaring a variable in PHP. (3 Marks)
- d) What will the below code display on the browser? (2 Marks)

```
<?php  
For($i=1;$i<=10;$i++){  
Echo "$i<br/>";  
If($i=5){ break;  
}  
}  
?>
```

- e) Differentiate between Global and Local variables (2Marks)



f) Data and Form validation is important in website development. Discuss the importance of validation. (1 Marks)

QUESTION FOUR (15 MARKS)

a) Highlight THREE characteristics of Client/Server architectures (2 Marks)

b) This is student MySQL database table called student.

Reg no	First_Name	Last_name	course	Gender
Cit/1290	Mercy	Kimathi	IT	Female
Cit/677	Haron	James	Comp	Male
CIT/880	Hillary	Kip	Comp	Male
CIT/97656	Stephen	Mutinda	IT	Male

Using PHP write to fetch the records from the database and display it into HTML table. (5 Marks)

c) Explain the difference between static and dynamic websites. (2 Marks)

d) State and explain the rules of PHP variable. (6 Marks)

QUESTION FOUR (15 MARKS)

a) After creating a web page, explain how one can use web browser to display the contents. (4 Marks)

b) Peter, during his coding session had assigned a variable in PHP by \$67='age'. He had an error. Make the correction and explain the rules he breached. (6 Marks)

c) Consider this *fruit* table in the database.

Price of Fruits

id	Fruit	Price
1	Apple	Ksh. 10
2	Orange	Ksh. 5
3	Banana	Ksh. 15
4	Pineapple	Ksh. 10

i. Write a PHP statement to fetch records into HTML table

(5 Marks)