# BINDURA UNIVERSITY OF SCIENCE EDUCATION

#### **FACULTY OF SCIENCE EDUCATION**

### EDUCATIONAL TECHNOLOGY DEPARTMENT

CS214/EDT214 INTERNET AND WEB DESIGNING

DURATION 3 HOURS

TOTAL MARKS IS 100.

## **INSTRUCTIONS TO CANDIDATES**

# JAN 2025

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Answer all QUESTIONS

#### **QUESTION 1**

Write the HTML code to create a simple web page with the following structure:

A heading "Welcome to My Website"

A paragraph of text

An unordered list with 3 items

A link to another page named "About Us"

[20]

#### **QUESTION 2**

- a) Write HTML for a form and input types that allows a user to enter a Name, Email Address and Phone Number into the Form fields and then click submit button to submit the data entered into the fields. NB: Validate the Phone number to allow correct digits to be entered. [10]
- b) Write code that helps to organize the following data into an HTML table with appropriate header and footer sections:

Name	Age	Gender	Location
Tambudzai Meki	56	Female	Gweru
Florence Hove	34	Female	Murehwa
Mark Ndlovu	38	Male	Lupane

[10]

#### **QUESTION 3**

- a) Write a SQL query to update the salary of an employee with EmployeeID 101 to \$60,000 in a table named "Employees". [4]
- b) Explain the difference between INNER JOIN and LEFT JOIN in SQL. Provide an example scenario where each type of join is useful. [6]
- c) Explain the five main advantages of using SQL for database design. [10]

#### **QUESTION 4**

- a) Create a PHP script that takes a number as input and checks if it is a prime number. If the number is prime, output "Prime number". Otherwise, output "Not a prime number" [10]
- b) Create a PHP script that takes an array of strings as input and outputs the longest and shortest strings in the array. For example, if the input array is ["apple", "banana", "cherry", "date"], the output should be: Longest string: banana, Shortest string: date. [10]

#### **QUESTION 5**

#### In one essay answer the following:

- a) Evaluate the significance of server-side programming languages like PHP in web development.
- b) Discuss the advantages of using PHP for building dynamic websites and web applications.
- c) Explain how PHP integrates with databases like MySQL using SQL, and how this combination enables the creation of powerful web solutions.
- d) Provide examples of popular PHP frameworks and their use cases. [20]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*