

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE EDUCATION

EDUCATIONAL TECHNOLOGY DEPARTMENT

CS214/EDT214 INTERNET AND WEB DESIGNING

A

DURATION 3 HOURS

TOTAL MARKS IS 100

INSTRUCTIONS TO CANDIDATES

AUG 2024

Answer all QUESTIONS

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QUESTION 1

- a) What does HTML stand for? [2]  
b) With the aid of an example on each define any five (5) HTML attributes [10]  
c) Analyse the following code snippet:

```
html
<div>
  <h2>Title</h3>
  <p>Lorem ipsum dolor sit amet.</p>
</div>
```

Identify and correct the issues, explaining the rationale behind your corrections. [4]

- d) Explain how the following code can be optimised:

```
html
<a href="https://www.example.com">Click here</a>
<a href="https://www.example.com">Learn more</a>
```

[4]

QUESTION 2

- a) Explain any four best practices for using comments in html code. [8]  
b) Differentiate  
i. ordered lists,  
ii. unordered lists, and  
iii. definition lists in HTML.

Write the tags for each of the lists giving examples of when each type of list would be most suitable for organizing content on a webpage. [4 marks each]

### QUESTION 3

- a) What does the abbreviation SQL stand for? [2]
- b) Explain the differences between SQL and NoSQL databases. Provide examples of scenarios where each type is more suitable for web development. [4 marks each]
- c) Write a SQL query to retrieve all employees from a table named "Employees" who have a salary greater than \$50,000. [5]
- d) Create a SQL query to calculate the total sales amount for each product category from a table named "Sales" that contains columns ProductID, Category, and Amount. [5]

### QUESTION 4

- a) Create a PHP script that displays a 10 item multiplication table for a given number. For example, if the number is 5 , the output should be:  
 $5 \times 1 = 5$   
 $5 \times 2 = 10$   
 $5 \times 3 = 15$   
...  
 $5 \times 10 = 50$  [10]
- b) Write a PHP script that takes a number as input and outputs the factorial of the number. For example, if the input is 5, the output should be "Factorial of 5 is 120" [10]

### QUESTION 5

- a) Discuss the evolution of the internet and its impact on web development showing how the internet has transformed the way we access and share information, and how it has influenced the development of web technologies like HTML, CSS, and JavaScript. [12]
- b) Provide examples of how the internet has revolutionized various industries and changed the way we live and work. [8]

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