

**UNIVERSITY COLLEGE TATI (UC TATI)****FINAL EXAMINATION QUESTION BOOKLET**

COURSE CODE	: BCS 3584
COURSE	: WEB APPLICATION AND DEVELOPMENT
SEMESTER/SESSION	: 1-2023/2024
DURATION	: 3 HOURS

Instructions:

1. This booklet contains 5 questions. Answer **ALL** questions.
2. All answers should be written in answer booklet.
3. Write legibly and draw sketches wherever required.
4. If in doubt, raise your hands and ask the invigilator

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

THIS BOOKLET CONTAINS 7 PRINTED PAGES INCLUDING COVER PAGE

QUESTION 1

- a) Define the differences between WWW and Internet. (2 marks)
- b) Discuss the benefits of N-Tier Architecture. (2 marks)
- c) Differentiate between online web-based application and traditional desktop applications. (4 marks)
- d) Define about web server. (2 marks)
- e) Give **TWO (2)** examples of web server software. (2 marks)
- f) Describe **TWO (2)** main functions of web server. (4 marks)
- g) Discuss **TWO (2)** web security threats can do to your organization. (4 marks)
- h) Outline **TWO (2)** security tips to protect your website from hackers. (4 marks)

QUESTION 2

- a) Explain the term DOCTYPE. (2 marks)
- b) Write HTML syntax to answer the following questions :
 - i. Insert an image named "gambar.jpg" (1.5 marks)
 - ii. Create hyperlink to the website UC TATI using the url: *www.uctati.edu.my* (2 marks)
 - iii. Write HTML syntax to tell the browser that the sentence "Ini adalah komen" is only a comment and will not displayed in the browser. (1.5 marks)

- c) Draw the output interface for the given script in Figure 1. (3 marks)

```
<table style="width:100%">
  <tr>
    <th>Name</th>
    <td>Syafi</td>
  </tr>
  <tr>
    <th rowspan="2">Phone</th>
    <td>012-1234567</td>
  </tr>
  <tr>
    <td>010-7654321</td>
  </tr>
</table>
```

Figure 1 : HTML code

- d) For questions i-ii, consider the following HTML syntax in Figure 2 :

```
<form method="post" action="order.php">
Name:
<input name="username" type="text" size="40"><br>
Gender:
<input type="radio" name="gender" value="male">Male
<input type="radio" name="gender" value="female">Female<br>
Favorite Foods : <br>

<input type="checkbox" name="food" value="nasi lemak">Nasi
Lemak<br>
<input type="checkbox" name="food" value="nasi ayam">Nasi Ayam
<br>
<input type="submit" value="Submit">
</form>
```

Figure 2 : HTML syntax

- i. Identify **THREE (3)** type of input elements based on the Figure 2. (3 marks)
- ii. Draw the interface design based on Figure 2. (4 marks)

QUESTION 3

- a) Figure 3 shows HTML coding to display "Welcome to UC TATI" in web browser. Construct inline style sheet for Cascading Style Sheets (CSS) syntax to change the colour of the text to "red" and the font of the text to "courier".

(4 marks)

```

<!DOCTYPE html>
<html>
<body>
<p>Welcome to UC TATI.</p>
</body>
</html>

```

Figure 3 : HTML syntax

- b) Distinguish between external style sheet and internal style sheet in CSS. (4 marks)
- c) Discuss the advantages of using CSS file compared to HTML code only. (2 marks)
- d) Figure 4 shows the CSS syntax which will output the respective paragraph into blue and the text is align to center. Based on the figure, identify x, y and z. (3 marks)

```

p
{
color:blue;

text-align:center;
}

```

Diagram labels: x points to the selector 'p', y points to the opening curly brace '{', and z points to the closing curly brace '}'.

Figure 4 : CSS syntax

- e) State in HTML document the correct place to write an external style sheet. (1 mark)
- f) Give the HTML syntax tag to refer as an external CSS file the HTML document. (1 mark)
- g) Write a JavaScript syntax that display "Hello World" as Figure 5. (2 marks)

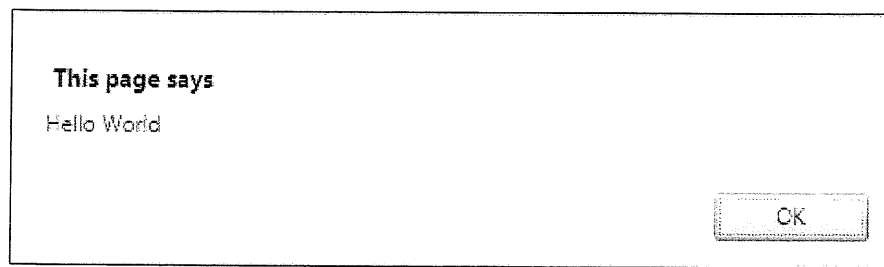


Figure 5 : Interface of JavaScript syntax

QUESTION 4

- a) Explain **TWO (2)** reasons why database on the website is important. (4 marks)
- b) State **TWO (2)** categories of SQL statement language and give **TWO (2)** syntax for each categories. (4 marks)
- c) UC TATI Mini Mart wants to provide their customers with an online facility to purchase their goods and has requested you to develop a very simple web application for them. Given that the database is already created for you and that you only have to use it. The database information is as follows:
- Database name : UCTATI
 - Table name : tblBarang

Table 1: Record in the table **tblBarang**

<i>id</i>	<i>item</i>	<i>price</i>
1	Pencil	1.50
2	Mineral water 1 liter	2.00
3	1 large bread	1.80
4	Sugar 1 kg	2.50

- i. Write SQL syntax to retrieve a list of all goods available in *tblBarang* table. (2 marks)
- ii. Write SQL syntax to update the price of Maggi to 5.90. (4 marks)
- iii. Write SQL syntax to delete record that have id= 1. (3 marks)

QUESTION 5

- a) Write **TWO (2)** types of code tag comment in PHP. (2 marks)
- b) State either the following are valid or invalid variable names for PHP. If they are invalid, state why. (4 marks)
- \$Student name
 - \$My_program
 - \$123Hello
 - \$Price1
- c) Write the function to disconnect MySQL using PHP script. (1 mark)
- d) Trace the output based on the PHP syntax in Figure 6. (3 marks)

```
<?php
$x = 0;

while($x <= 5) {
    echo "The number is:
    $x <br>";
    $x++;
}
?>
```

Figure 6 : PHP syntax

- e) For questions i-ii, consider the following PHP syntax in Figure 7 :

```
<?php
$txt1 = "BCS 3584";
$txt2 = "Web Application and Development";
$x = 1;
$y = 3;

echo ("<h2>" . $txt1 . "</h2>");
echo ("Welcome to class ".$txt2.$txt1."<br>");
echo ($x + $y);
echo ("kredit");

?>
```

Figure 7 : PHP syntax

- i. Identify **ONE (1)** variable is used. (1 mark)
 - ii. Sketch the output based on PHP syntax in Figure 7. (5 marks)
- f) Construct PHP syntax that assign values of two variables. The PHP syntax can test whether the first value is less than the second value or greater than the second value. You can use any types of control structure. (9 marks)

-----End of question-----

