



UNIVERSITY COLLEGE TATI (UC TATI)

FINAL EXAMINATION QUESTION BOOKLET

COURSE CODE	: BCS 3584
COURSE	: WEB APPLICATION AND DEVELOPMENT
SEMESTER/SESSION	: 1-2022/2023
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) Distinguish **TWO (2)** advantages of online web-based application compare with traditional desktop applications. (4 marks)
- b) There are several types of web-based application that you usually used. State **TWO (2)** types of web-based application. (2 marks)
- c) Explain the benefits of N-Tier Architecture. (2 marks)
- d) The term web server can mean one of two thing: A computer responsible for serving web pages, mostly HTML documents, via the HTTP protocol to clients mostly web browser. A software program that is working as serving web documents. Describe **TWO(2)** main functions of web server. (4 marks)
- e) Explain **TWO (2)** advantages of using open source web server. (4 marks)
- f) Outline **TWO (2)** security tips to protect your website from hackers. (4 marks)
- g) Differentiate between firewall and proxy server. (4 marks)

QUESTION 2

- a) Refer to the following HTML code in Figure 1 to answer question i – iii below:

```
<!DOCTYPE HTML>
<html>
<title> My Homepage </title>
</head>
<body>
About my family
<p> Welcome to UC TATI</p>
<h1> FKMPPT </h1>
</html>
```

Figure 1: HTML code

- i. Identify **TWO (2)** missing tags in the HTML code above. (2 marks)

- ii. Construct the HTML code to change the colour of the text "FKMPT" to "blue" and font of the text to "verdana". (4 marks)
- iii. Create hyperlink to website named *www.uctati.edu.my* (2 marks)
- b) Draw the output for given script in Figure 2. (3 marks)

```
<table border="1">
<tr>
<td colspan="2">Student</td>
</tr>
<tr>
<td>Name</td>
<td>Matric. No</td>
</tr>
</table>
```

Figure 2: HTML code

- c) For questions i-ii, consider the following HTML form in Figure 3 :

```
<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 3 : HTML code

- i. Explain the form element function in HTML. (2 marks)
- ii. Draw the interface based on HTML code in Figure 3. (4 marks)

QUESTION 3

- a) Discuss **TWO (2)** advantages using external style sheet compared to internal style sheet in Cascading Style Sheets (CSS). (4 marks)
- b) Discuss the advantage of using CSS compared using HTML code. (2 marks)
- c) Figure 4 show the CSS syntax which will output the respective paragraph into blue and the text is align to center. Based on the figure, what is x, y and z. (3 marks)

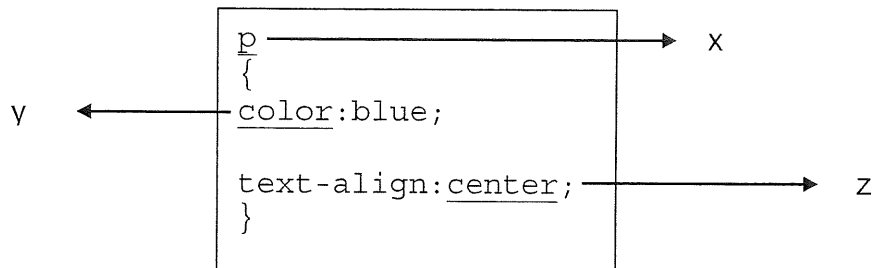


Figure 4 : CSS syntax

- d) State where in an HTML document is the correct place to refer to an external style sheet. (1 mark)
- e) Give the HTML syntax that use to refer an external CSS file within an HTML document. (1 mark)
- f) Describe **TWO (2)** advantages of JavaScript in website. (4 marks)
- g) Write a JavaScript syntax that display "Hello World" as Figure 5. (2 marks)

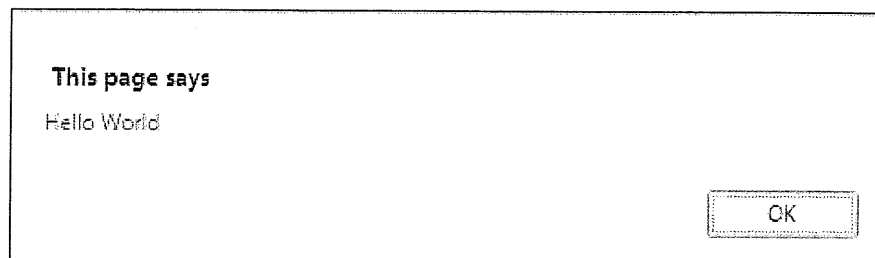


Figure 5 : Interface of JavaScript syntax

QUESTION 4

- a) Give **TWO (2)** examples of website using database. (2 marks)
- b) Explain why database on the website is important. (3 marks)
- c) State SQL keyword that used to sort the result. (1 mark)
- d) SQL statement language has **TWO (2)** categories. List **ONE (1)** of the categories and give **ONE (1)** syntax for the categories. (2 marks)
- e) As a programmer at UC TATI, you are required to develop a web based application for system registration course. 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 : UC TATI
 - Table name : course

Table 1: Table course

id	course_name	course_code	credit_hour	lecturer_name
1	Web Application And Development	BCS 3584	4	Ts. Dr.Nur Sukinah Aziz
2	Object Oriented Programming	BCS 2233	3	Mohd Nazri Ibrahim
3	Operating System	BCS 1333	3	Nur Liyana Zakaria
4	Software Engineering	BCS 2433	3	Dr. Syafi Haris

By referring to Table 1, write SQL code based on the situation given below.

- i. Write SQL code to retrieve only course name, course code and lecturer name field in the *course* table. (3 marks)
- ii. Write SQL query to delete course object oriented programming. (3 marks)
- iii. Construct SQL query to insert the information provided in Table 2. (3 marks)

Table 2: Table course

id	5
course_name	Mobile Technology
course_code	BCS 2333
credit_hour	3
lecturer_name	Arissa Kamila

QUESTION 5

- a) Explain why PHP widely used nowadays. (2 marks)
- b) Write **TWO (2)** types of comment in PHP. (2 marks)
- c) State either the following are valid or invalid variable names for PHP. If they are invalid, state why. (4 marks)
- i. \$Student name
 - ii. \$My_program
 - iii. \$123Hello
 - iv. \$Price1
- d) Write PHP scripting that display "Selamat Datang" in web browser. (3 marks)
- e) Write the function to disconnect PHP script from MySQL. (1 mark)
- f) Explain about \$_POST. (2 marks)
- g) There are two ways the web browser can send information to the web server using get method and post method. Discuss both method. (4 marks)
- h) State the output of the following code in Figure 6. (2 marks)

```
<?php
$x=6;
echo "The number is:";
do
{
echo "$x";
$x++;
}
while ($x<=7)
?>
```

Figure 6 : Php syntax

- i) Figure 6 shows the interface form that receive the input from the user. Write the PHP code that produce the output based on Figure 7. (5 marks)

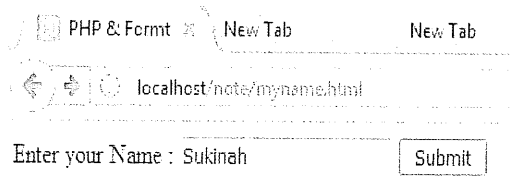


Figure 6 : Interface form

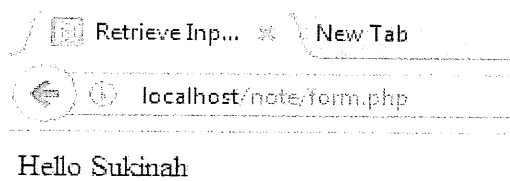


Figure 7: Interface output

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

