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**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2013/2014**

COURSE NAME : WEB PROGRAMMING  
COURSE CODE : BIT 3153  
PROGRAMME : 4 BIT  
EXAMINATION DATE : JUNE 2014  
DURATION : 2 HOURS AND 30 MINUTES  
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **SIX (6)** PAGES

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**Q1** The term *open source* refers to something that can be modified because its design is publicly accessible.

(a) Outline the advantages of open source software compared to close source software. (6 marks)

(b) Outline **TWO(2)** characteristics of an open source Content Management System (CMS) and give **TWO(2)** examples of an open source CMS. (4marks)

(c) Give **FOUR(4)** examples of web applications that can be considered as Web 2.0. (4 marks)

(d) Give **FOUR(4)** examples of open source web servers. (4 marks)

(e) Based on your analysis of Android and Apple's iOS, what are the advantages do Android have over Apple's iOS. (7 marks)

**Q2** Internet is an important part of a modern life. Internet provides connection between computers. It is a sharing medium of information and news. It enables you to know many things simply by a mouse click. It also enables us to communicate with people anytime and anywhere.

(a) List **THREE(3)** Internet architectures. (3 marks)

(b) What is Domain Name System (DNS) and illustrate how it works. (7 marks)

**Q3** Markup languages (ML) are used to build web pages. It dictates on how a browser will load, format and align text and graphics on a web page.

(a) List **THREE(3)** Markup Languages.

(3 marks)

(b) Illustrate the output for the scripts below:

```
<table>
<tr>
<td>Row1 - Col 1</td>
<td>Row 1 - Col 2</td>
</tr>
<tr>
<td>Row 2 - Col 1</td>
<td>Row 2 - Col 2</td>
</tr>
</table>
```

(4 marks)

(c) Construct HTML codes to produce output as in **Table 1** :

**Table 1:** Bakery Shop Price Listing

Product	Item Name	Price
Bread	Raisin Bread	RM 3.00
Doughnut	Chocolate Doughnut	RM 1.00
Cake	Ice Cream Cake	RM 50.00

(8 marks)

Q4 JavaScript (JS) is an interpreted computer programming language. As part of web browsers, implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously and alter the document content that is displayed.

(a) List TWO(2) JS functions to capture input from user.

(2 marks)

(b) Illustrate the output for the JS coding below :

```
(i) <html>
    <body>
        <script language="Javascript">
            window.alert("Hello");
        </script >
    </body>
</html>
```

```
(ii) <html>
    <body>
        <script language="Javascript">
            document.writeIn("Hello World!<br>");
            document.writeIn("Have a nice day!");
        </script >
    </body>
</html>
```

(6 marks)

(c) Construct JS statement to accomplish each of the following tasks:

- (i) Declare variables `sum` and `x`.
- (ii) Assign 1 to variable `x` and assign 0 to variable `sum`.
- (iii) Add variable `x` to variable `sum`, and assign the result to variable `sum`.
- (iv) Print "The sum is: ", followed by the value of variable `sum`.

(2 marks)

(d) Combine the statement you wrote in Q4(c) into a JS that calculates and prints the sum of the integers from 1 to 10. Use **for** statement to loop through the calculation and increment statement. The loop should terminate when value of `x` becomes 11.

(10 marks)

**Q5** Server-side scripting can be written in any server-side scripting languages available (Example: PHP, ASP.NET).

(a) Differentiate server-side scripting and client-side scripting in terms of platform, execution, source code and the need for server.

(8 marks)

(b) Outline the rules for declaring PHP variables.

(5 marks)

(c) Illustrate the output for the coding below :

```
<?php
$i=1;

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

(3 marks)

(d) Illustrate the output for the coding below :

```
<?php
$num1 = 10;
$num2 = 5;

echo("Original num1 : $num1<br>");
echo("Original num2 : $num2<br>");
// creating a function
function addFunction($num1, &$num2)
{
    $num1+= 1;
    $num2+= 2;
}

// call the function, send original values
addFunction(&$num1, $num2);
echo("Updated num1 : $num1<br>");
echo("Updated num2 : $num2");
?>
```

(4 marks)

**Q6** Most of today's database systems are referred as Relational Database Management System (RDBMS) because of their ability to store related data across multiple tables.

(a) Give examples of **FOUR(4)** common RDBMS

(2 marks)

(b) Given data in **Table 2**, containing `staffName`, `department` and `position` fields.

**Table 2:** Staff Directory

<code>staffName</code>	<code>department</code>	<code>position</code>
Nordin	Science	clerk
Ahmad	Biology	officer
Ahmad Kamal	Science	manager

By having this table we face difficulties to set the primary key.  
Give **TWO(2)** reasons why.

(2 marks)

(c) Explain the solution that should be done in order to solve the situation in **Q6(b)**.

(3 marks)

(d) Demonstrate SQL statement to create a table called `SUBJECT` that consists primary key `subject_id` and have `subject-code`(varchar), `ic`(int).

(3 marks)

- END OF QUESTION -

