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**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER II  
SESSION 2014/2015**

COURSE NAME : WEB DEVELOPMENT  
COURSE CODE : BIC 21203  
PROGRAMME : 2 BIS / 2 BIP / 2 BIW / 2 BIM  
EXAMINATION DATE : JUNE 2015 /JULY 2015  
DURATION : 2 HOURS AND 30 MINUTES  
INSTRUCTION : A) ANSWER ALL QUESTIONS.  
B) PLEASE WRITE YOUR ANSWERS IN THIS QUESTION BOOKLET.

THIS QUESTION PAPER CONSISTS OF **THIRTEEN (13)** PAGES

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**Q1 (a)** Identify the differences between client-side scripting and server-side scripting. Write your answer in Table 1.

(5 marks)

**Answer:**

**Table 1 : Client and Server Side Scripting**

	Server side scripting	Client side scripting
Platform		
Execution		
Source code		
Need for server		
Security		

**(b)** Write PHP script to display the text as shown in Figure **Q1(b)** using `echo` command which contains HTML mark up.

(5 marks)

```
PHP is Fun  
  
Hello friend.  
I'm about to master PHP.
```

**FIGURE Q1 (b)**

**Answer:**

(c) Determine the output of program in Figure Q1(c).

(5 marks)

```
<!DOCTYPE html>
<html>
<body>

<?php

$num1=24;
$num2 =5;

echo "Greeting with Function <br>";

function fun1($t){
if ($t < "10") {
    echo"<br> Have a good morning!";}
    elseif ($t < "20")
    {
        echo"<br> Have a good day!";}
        elseif ($t < "25")
        {
            echo"<br>Have a good night!";}
else {
    echo"<br>Out of range";}
}
function fun2(&$num1,&$num2){
$num1-=10;
$num2*=5; }

fun1($num1);
fun1($num2);
fun2($num1,$num2);
fun1($num1);
fun1($num2);
?>
</body>
</html>
```

FIGURE Q1(c)

**Answer:**

- (d) (i) Design a user interface for login based on the information in Figure Q1(d).

(5 marks)

A developer wants to design a login interface for video rental system. The interface should contain label "Rental Name" for user identification, label "Rental Code" for rental registration number and a submit button "Login".

**FIGURE Q1(d)**

**Answer:**

- (ii) Write a pseudocode to authenticate the user login. The user shall receive valid or invalid response.

(5 marks)

**Answer:**

**Q2** (a) Describe GD library.

(5 marks)

**Answer:**

(b) Write PHP code segment to draw a rectangle.

(5 marks)

**Answer:**

(c) Determine the output for program in Figure Q2(c).

(5 marks)

```
<!DOCTYPE html>
<html>
<body>
<?php
header("content-type: image/jpeg");
$data =
array('3000','2470','225','663','6666','3456','789');
$height =255;
$width = 320;
$im = imagecreate($width,$height);
$white = imagecolorallocate($im,240,240,255);
$black = imagecolorallocate($im,0,0,0);
imageline($im,10,5,10,230,$black);
imageline($im,10,230,300,230,$black);
$blue = imagecolorallocate($im,0,64,128);
$x = 15;
$y = 230;
$x_width = 20;
$y_ht = 0;
$sum = array_sum($data);

for($i=0;$i<7;$i++)
{
$y_ht = ($data[$i]/$sum)*$height;
imagefillrectangle($im,$x,$y,$x+$x_width,($y-
$y_ht),$blue);
imagestring($im,2,$x-1,$y+10,$data[$i],$black);
$x += ($x_width+20);
}
imagejpeg($im);
?>
</html>
</body>
```

FIGURE Q2(c)

**Answer:**

- (d) Based on the information in Figure Q2(d), design the user interface using your creativity to display all information stored in `book_catalog` database.

(5 marks)

A book catalog table contains the information about the `book_id`, `book_title`, `cover_img`, `book_category`, `year`, `author_s` and `price`. A developer wants to display the book's information in an HTML page. The interface should contain table with heading label and its content.

FIGURE Q2(d)

Answer:

- Q3 (a) Explain the following MySQL commands:

- (i) `SHOW DATABASES`

(2 marks)

Answer:

(ii) SHOW COLUMNS FROM <tablename>

(3 marks)

**Answer:**

(b) Based on the information in Figure Q3(b), write a PHP script to implement the following task. Use example where necessary.

(i) connect with the database

(2 marks)

Usaha Jaya Sdn Bhd was operated few months ago. They want to develop a system to keep their employee's information. They hired you to develop this system using PHP.

The company wants you to develop system that can store employee number, employee name, address and phone number. This system should be able to add record, update, search and delete record.

Assume the database name is *Employee* and the table is *EmpInfo*.

**FIGURE Q3(b)**

**Answer:**



(ii) add record

(2 marks)

**Answer:**

(iii) display record

(2 marks)

**Answer:**

(iv) search record based on employee number

(2 marks)

**Answer:**

- (v) delete record based on employee number .

(2 marks)

**Answer:**

- (c) (i) Show the result of the code in Figure Q3(c)(i).

(5 marks)

```
echo Connected successfully<br />';
$sql="CREATE TABLE tutorials_tbl( ".
    "tutorial_id INT NOT NULL AUTO_INCREMENT, ".
    "tutorial_title VARCHAR(100) NOT NULL, ".
    "tutorial_author VARCHAR(40) NOT NULL, ".
    "submission_date DATE, ".
    "PRIMARY KEY ( tutorial_id )); ";
mysql_select_db('TUTORIALS');
$retval = mysql_query($sql,$conn);
```

**FIGURE Q3(c)(i)**

**Answer:**



- (b) (i) Examine the program code provided in Figure Q4(b). Write a program trace that explains what each line of the program does. (6 marks)

```
function calculate(size)
{
  var output = new Array(size);
  output[0]= 0;
  output[1]= 1;
  for (var i=2; i< size; i++)
  {
    output[i]= output[i-1] + output[i-2];
  }
  return output;
}
```

FIGURE Q4(b)

**Answer:**

- (ii) Determine the output for the program in Figure Q4(b) if size=3. (2 marks)

**Answer:**

- (c) Based on the scenario in Figure Q4(c), suggest and explain TWO (2) solutions of web technology can accommodate the current trend requirements.

(10 marks)

The first generation of the web was characterised as the Information Age. With the emergence of the second generation (Web 2.0) over this decade, the focus of the web has largely been about interaction. Finally it is known as the social web. Currently in the early stages of development, the semantic web (or Web 3.0) is expected to anticipate information of interest to users, providing a more personalised web experience.

**FIGURE Q4(c)****Answer:****- END OF QUESTION -**