



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2021/2022**

- COURSE NAME : WEB DEVELOPMENT
- COURSE CODE : BIT 21503
- PROGRAMME CODE : BIT
- EXAMINATION DATE : JULY 2022
- DURATION : 3 HOURS
- INSTRUCTION :
1. ANSWER ALL QUESTIONS
 2. THIS FINAL EXAMINATION IS AN **ONLINE** ASSESSMENT AND CONDUCTED VIA **CLOSED BOOK**.
 3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **FIVE (5)** PAGES

- Q1 (a)** Identify the results of the following program in **Figure Q1(a)**. (5 marks)

```

<?php
$n = 5;
echo "n = " . $n . "<br>";
$count = 1;
for ($i = $n; $i > 0; $i--)
{
    for ($j = $i; $j < $n + 1; $j++)
    {
        printf("%4s", $count);
        $count++;
    }
    echo "<br>";
}
?>

```

Figure Q1(a)

- (b)** Examine the program code provided in **Figure Q1(b)**. Write a program trace that explains what each line of the program does. Identify the result that is returned by the program. (15 marks)

```

1 <?php
2 function daysofweek($number){
3 $weeknames=array("Monday","Tuesday","Wednesday","Thursday",
4 "Friday","Saturday","Sunday");
5 return($weeknames[$number]);
6 };
7 ?>
8 <html>
9 <head>
10 <title>Days of week</title>
11 </head>
12 <body>
13 <h1>Days of week</h1>
14 <?php $dayno=4; ?>
15 <p>Today is <?php print daysofweek($dayno); ?>
16 </p>
17 </body>
18 </html>

```

Figure Q1(b)

Q2 Answer **Q2(a)-Q2(i)** in PHP code to generate a bar chart of new Covid-19 cases based on data in **Table Q2** using GD Library. You may refer the output as shown in **Figure Q2**.

Table Q2. Number of new Covid-19 cases

Date	11/Oct	12/Oct	13/Oct	14/Oct	15/Oct	16/Oct	17/Oct
New Cases	6709	7276	7950	8084	7420	7509	6145

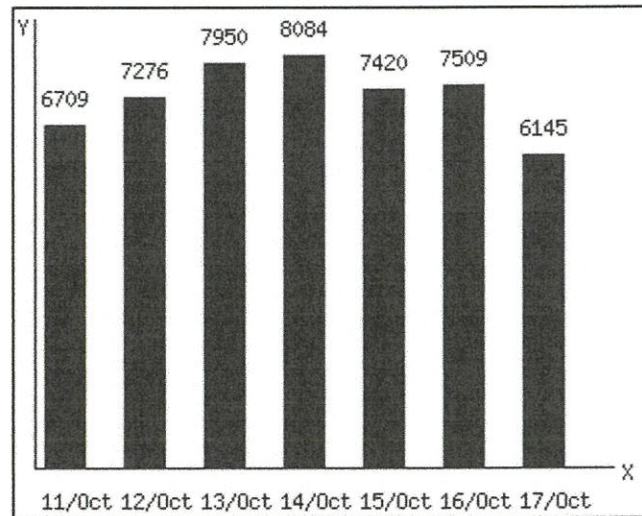


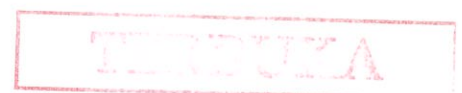
Figure Q2. Number of new Covid-19 cases

- (a) Set the output of the image to *jpeg* format. (1 mark)

- (b) Write **TWO (2)** arrays to initialize the data for Date and the Number of New Cases. (2 marks)

- (c) Use *imagecreate* function to setup the image canvas with 255 (height) and 320 (width) in size. (1 mark)

- (d) Use *imagecolorallocate* function to set the canvas background color to white. (1 mark)



- (e) Draw black lines for the X and Y axis of the bar chart using the following start and end coordinates:
X: (10, 230), (300, 230)
Y: (10, 5), (10, 230) (2 marks)
- (f) Initialize the fill color for all graph bar to blue. (1 mark)
- (g) Initialize the first graph bar location to (15, 230), the bar width to 20 and max bar height to 10000. (4 marks)
- (h) Use `for` loop to populate each bar. (4 marks)
- (i) Put label for X axis as the Date, and for Y axis is the number of New Cases (stacked on top of each bar, respectively). (4 marks)

Q3 Answer **Q3(a)-Q3(d)** in PHP code, considering the following steps.

- (a) A block of codes to make a connection to a MySQL database named `db_MY` using PHP Data Objects (PDO). (2 marks)
- (b) A block of codes in a form to key in a Malaysian IC Number. (3 marks)
- (c) A block of codes to extract **THREE (3)** information from the entered Malaysian IC Number in **Q3(b)**; date of birth, gender and place of birth. Categorize the place of birth into two; Malaysia or Overseas. (10 marks)
- (d) A block of codes which includes an SQL statement to save the Malaysian IC Number, Birth Date, Gender, Birth Place in a table named `MyData` in `db_MY`. (5 marks)

- Q4** (a) List **TWO (2)** threats affecting web security. (2 marks)
- (b) Explain **THREE (3)** ways to ensure the logo or any branding images are protected. (3 marks)
- (c) List **FIVE (5)** methods to avoid any intrusions to a company's website. (5 marks)
- (d) Explain what SQL injection is. By giving an example, explain how to prevent SQL injection. (10 marks)

- END OF QUESTIONS -