CONFIDENTIAL

SULIT

UTM UNIVERSITI TEKNOLOGI MALAYSIA

SCHOOL OF COMPUTING
Faculty of Engineering

UNIVERSITI TEKNOLOGI MALAYSIA

FINAL EXAM SEMESTER II, 2019/2020

PART 2 – TAKE HOME EXAM (THE)

SUBJECT CODE	**:**	**SCSV1223/ SECV1223**
SUBJECT NAME	**:**	**WEB PROGRAMMING**
TIME START	**:**	**09:00 AM – 11:45 AM**
TEST DURATION	**:**	**2 HOURS 45 MINUTES**
DATE/DAY	**:**	**17TH JULY 2020 (FRIDAY)**
VENUE	**:**	**MPK1, N28**

INSTRUCTIONS :

1. This Part 2 Exam consists of **5 (FIVE)** structure questions.
2. Answer all the **structured questions**. The marks for each part of the question is as indicated.
3. You are given **2 HOUR 45 MINUTES** to complete the Part 2 Exam inclusive the submission of your answers.

Exam Details	Time Estimation
Student download a the question through e-learning.	09:00 am - 09:15 am (15 minutes)
Student answer the question.	09:15 am - 10:15 am (60 minutes)
Student Submit the **Interim Submission**.	10:15 am - 10:30 am (15 minutes)
Student continue Answering the question after interim submission.	10:30 am - 11:30 am (60 minutes)
Student Submit the **Final Submission.**	11:30 am - 11:45 pm (15 minutes)

4. You are **NOT ALLOWED** to share your Final Examination Question Script or your Answer Script with your friends.
5. A candidate who is suspected of cheating in examinations is liable to disciplinary action including (but not limited to) suspension or expulsion from the University. All materials and or devices which are found in violation of any examination rules and regulation will be confiscated.
6. **NO HANDWRITTEN**. Compile all your answer scripts in the **TEMPLATE ANSWER SHEET** file provided, and follow the **SEQUENCE NO.** of the questions. So the lecturer does not get confused.
7. It is **COMPULSORY** to submit template answer sheet in **PDF File** Version.

*This question paper consists of **Eight(8)** printed pages excluding this page.*

PART 2

Answer all the following **structured questions**. The marks for each part of the question is as indicated.

Question 1 [SET 1] **[5 Marks]**

Use any **text editor** or **IDE** of your choice to complete the code for the question 1. Compile your code in the template answer sheet given**.**

Create a html command line syntax to produce a paragraph contained an equivalent statement as shown in the figure below. The paragraph contain nested inline elements to marks text with more than one character-formatting element. You will use the **bold italic** font in several locations in this block element paragraph. In this equation, italicize the letters *e*, *x* and *i*.

[5 Marks]

$$\mathbf{cos}(x)^{i} + i\mathbf{sin}(x) = e^{(ix)}$$

Answer SET 1

```
<p>
<b>cos</b>(<i>x</i>)<sup><i>i</i></sup> +
<i>i</i><b>sin</b>(<i>x</i>) =
<b><i>e</i></b><sup>(<i>ix</i>)</sup>
</p>
```

[5 Marks]

Question 2 [SET 1] **[10 Marks]**

Use any **text editor** or **IDE** of your choice to complete all the code for the question 2a and 2b. Compile your code in the template answer sheet given**.**

Consider the following fragment of HTM and CSS codes in the figures and answer all the following questions.

(a) By using a class selector in CSS, write a code to set the text color of the first paragraph elements to "blue", and second paragraph elements to "red".

[4 marks]

```
<!DOCTYPE html>
<html>
<head></head>

<style>
</style>

<body>
  <h1>Title</h1>
  <p>first paragraph.</p>
  <p>second paragraph.</p>
</body>
</html>

```

(b) Write a CSS code to apply the following style to the page content div container element:

- Set the margin size to 20 pixels above and below to the div container, and margin left and right to 40 pixels.
- Display the text in an overline when user mouse over on it.
- Display the text in uppercase letter when user mouse click on it.

```
<!DOCTYPE html>
<html>
<head></head>

<body>
  <div>
    <h1>This is a div container element.</h1>
  </div>
</body>
</html>
```

Answer 2 **[10 Marks]**

SET 1

(a) [4 Marks]

```
<!DOCTYPE html>
<html>
<head></head>

<style>
/* class selector */
      .blue{color:blue;}
      .red{color:red;}

/* OR can using class selector for specific */
      p.blue{color:blue;}
      p.red{color:red;}
</style>

<body>
  <h1>Title</h1>
  <p class="blue">first paragraph.</p>
  <p class="red">second paragraph.</p>
</body>
</html>

```

2 Marks

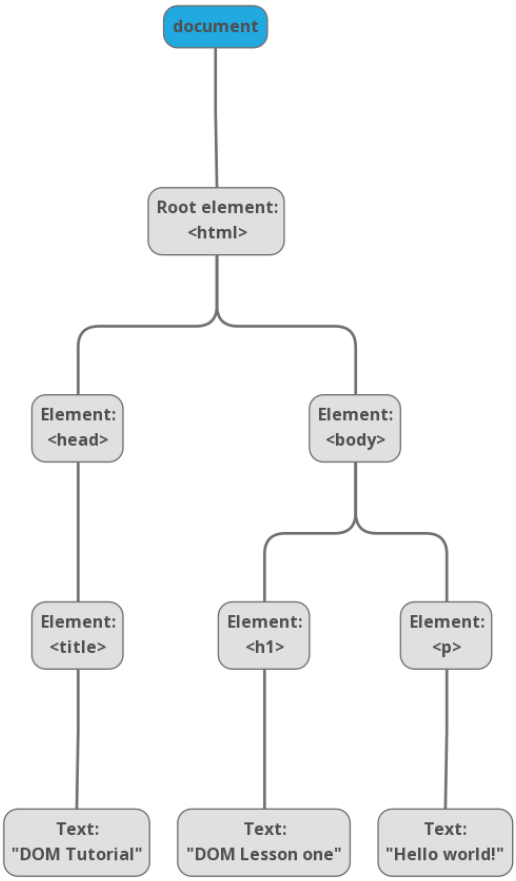
2 Marks

(b) [6 Marks]

```
<style>

div{margin: 20px 40px;}    /* 2 marks */

div:hover{text-decoration: overline;}    /* 2 marks */
div:active{text-transform: uppercase;}   /* 2 marks */

</style>
```

Question 3[SET 1] **[5 Marks]**

Construct the HTML code based on the tree below. Compile your code in the template answer sheet given**.**



Answer:

```
<html>
<html><head><title>DOM Tutorial</title></head>
<body>
<h1>DOM Lesson One</h1>
<p>Hello world!</p>
</body>
</html>
```

Question 4[SET 1] **[10 Marks]**

Answer all the **structured questions**. The marks for each part of the question is as indicated.

(a) Betty's Floral Arrangements shop has an online order form. She has added some JavaScript **functions** to calculate how much a person has to **pay** for the five items before they submit the page, and now she wants to add her functions to her form buttons.

i. **Propose** which event is best used for her buttons?

[1 Marks]

ii. **Construct** the JavaScript command line to execute the event button proposed in question (i), to trigger the function **calcTotal( ).** Assume the button display with the text **Calculate Order.**

[3 Marks]

(b) Betty wants to **display** the total from her **calcTotal( )** function in her form named **results** in a text box name and id called **finalAmount**. Assume that the variable **Total** is declare to keep the temporary value for total amount of five items before display it to the text box. Create a JavaScript command line to display the total amount in a text box.

var **Total** = price1 + price2 + price3 + price4 + price5;

[3 Marks]

(c) Betty wants to simplify her program to make more flexible. She want to stored a **calcTotal( )** function in an external file called **"calcTotal.js"**. The external file scriptis is located in a specified folder namely **"js"** on the current web site project. Create a JavaScript command line to call the an external file.

[3 Marks]

Answer SET 1

a. i - Onclick ( )

ii – Trigger event button code

```
<input type="button" value="Calculate Order" name="btnCalculate" onClick="calcTotal()">
```

Calculate Order

[4 Marks]

b.

Calculate Order

Total Amount (RM) : 105.00

document.results.finalAmount.value = Total; **atau**

document.results.finalAmount.value = calcTotal ( ); **atau**

```
document.getElementById("finalAmount").value=total.toFixed(2);
```

0.5 mark x 4 points = 2 marks

1 marks

[3 Marks]

c. This example links to a script located in specified folder on the current web site project.

```
<script src="/js/calcTotal.js"></script>
```

[3 Marks]

Question 5 **[20 Marks]**

Answer all the questions 5. The marks for each part of the question is as indicated. Type and compile your amswer in the template answer sheet given**.**

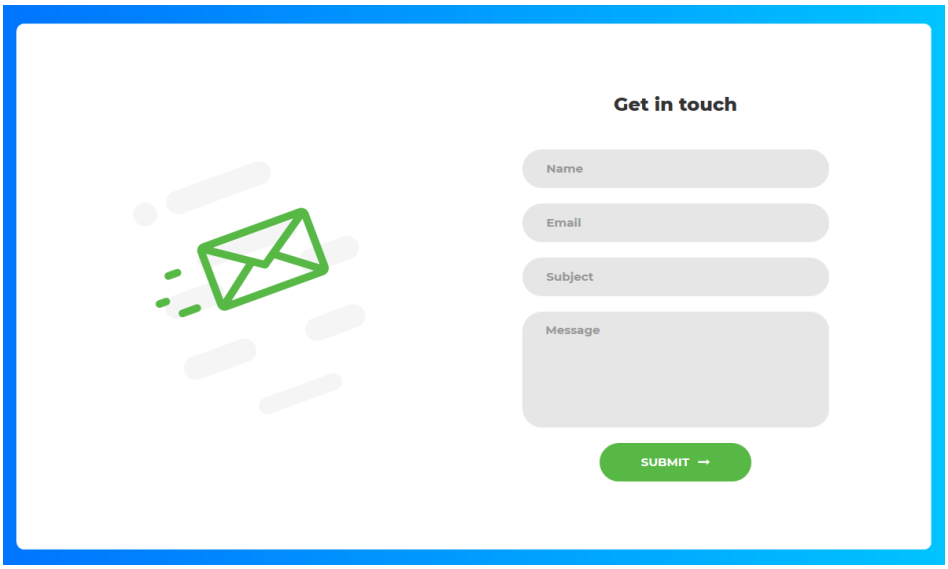


Figure 1: Graphical user interface of the Contact Us Page.

Based on the Contact Us Form given, kindly answer all questions below.

(a) Referring to the given connection information to MySQL database account below, **construct** the PHP codes needed in ***config.php*** file to open a database connection.

Host	:	localhost
Username	:	admin
Password	:	SCSV1223
Database Name	:	FinalAssignmentDb

[7 Marks]

(b) The FinalAssignmentDb database consist of table namely **ContactUsTbl**. The attribute of the table shown as below and assume that the ID field is set as primary key and auto_increment. Using the database connection in Question 5(a**), construct** the PHP codes to call ***config.php*** for example in the **insert.php** file in order to open a database connection before perfomed the insert data.

ContactUsTbl		
Field Name	**Data Type**	**Description**
ID	Integer	Auto Increment
Name	Text	User Name
Email	Text	User Email
Subject	Text	Message Title
Message	Text	Message Description

[2 marks]

(c) Once database connection in Question 5b(i) is success. Now, construct the PHP codes needed in **insert.php** file to insert data into the ContactUsTbl table once user click button "SUBMIT" in Figure 1.

[6 marks]

(d) Construct the PHP codes using a while loop needed in **view_list.php** file to retrieve all the data from ContactUsTbl table and view all the record in the browser as shown in the Figure 2.

[5 marks]

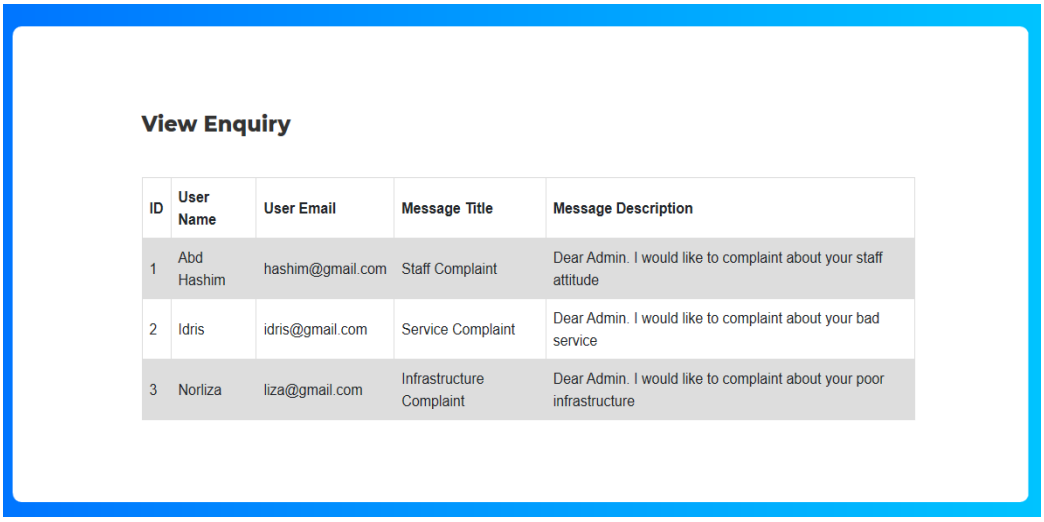


Figure 2: Graphical user interface of the View All the record in ContactUsTbl table.

Answer Question 5 [20 Marks]

SET1

Answer 5(a) - [7 marks]

```php
/* config.php */
<?php

    $db_host='localhost';
    $db_name='FinalAssignmentDb';
    $db_user='admin';
    $db_pass='SCSV1223';

    $conn=mysqli_connect($db_host,$db_user,$db_pass,$db_name);

 ?>
```

0.5 mark
1 mark
1 mark
1 mark
1 mark
1 mark
1 mark
0.5 mark

Answer 5(b) - [2 marks]

```php
/* Three way to call. can choose either one */
 include('config.php');
 require_once('config.php');
 require('config.php');
```

1 mark
1 mark

Answer 5(c) - [6 marks]

```php
//Escape user inputs for security
$Name = mysqli_real_escape_string($con, $_REQUEST['Name']);
$Email = mysqli_real_escape_string($con, $_REQUEST['Email']);
$Subject = mysqli_real_escape_string($con, $_REQUEST['Subject']);
$Message = mysqli_real_escape_string($con, $_REQUEST['Message']);


//Attempt insert query execution
$sql = "INSERT INTO ContactUsTbl (Name, Email, Subject, Message) VALUES
('$Name', '$Email', '$Subject', '$Message')";
```

4 mark
2 mark

OR

```php
$Name=$_POST['txt_Name'];
$Email=$_POST['txt_Email'];
$Subject=$_POST['txt_Subject'];
$Message=$_POST['txt_Message'];

$sql = "INSERT INTO ContactUsTbl (Name, Email, Subject, Message)
VALUES ('$Name', '$Email', '$Subject',' $Message')";

if (mysqli_query($conn, $sql)) {
  echo "New record created successfully";
} else {
  echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}

mysqli_close($conn);
```

4 mark

2 mark

Answer 5(d) - [5 marks]

```php
//Attempt select query execution
$sql = "SELECT * FROM ContactUsTbl";
$result = $conn->query($sql);

//Execute query
if ($result->num_rows > 0) {
    echo "<table><tr><th>ID</th><th>User Name</th><th>User Email</th><th>Message Title</th>
    <th>Message Description</th></tr>";
    // output data of each row
    while($row = $result->fetch_assoc()) {
        echo "<tr><td>" . $row["ID"]. "</td><td>" . $row["Name"]. "</td><td>" . $row["Email"]. "</td>
        <td>" . $row["Subject"]. "</td><td>" .$row["Message"]."</td></tr>";
    }
    echo "</table>";
} else {
    echo "0 results";
}
```

1 mark

1 mark

1 mark

2 mark

NOTES:

The answer for set 2 and 3 is same only the different is the database and table uses. The code answer for set 2 & 3 based on the db name & table fields given.