CONFIDENTIAL

SULIT

SCHOOL OF COMPUTING
Faculty of Engineering

UNIVERSITI TEKNOLOGI MALAYSIA

FINAL EXAM SEMESTER II, 2020/2021

SUBJECT CODE	:	**SCSV1223/ SECV1223**
SUBJECT NAME	:	**WEB PROGRAMMING**
SECTION	:	**ALL**
TIME	:	**10:00 AM – 12:45 AM**
DURATION	:	**2 HOURS 45 MINUTES**
DATE/DAY	:	**17 JULY 2021 (SATURDAY)**
VENUE	:	
	:	**PART 2 - Online Exam (Structure)**

INSTRUCTIONS :

- This Part 2 Online Exam consists of **5 (FIVE)** structure questions.
- Answer all the **structured questions**. The marks for each part of the question is as indicated.
- The Question Activated for download at **10:00 am**.
- You are required to submit **FULL** file code for Question 1,2,3 and 4. Question 5 **MUST BE** answer in the **ANSWER SHEET** provided.

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This question paper consists of NINE (9) 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 **[5 Marks]**

Use any **text editor** or **IDE** of your choice to complete the code for the question 1. Write your code and save it in a file named **question1.html.**

Submit your answer to the elearning.

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*, θ and *i*.

$$e^{i\theta} = \cos\theta + i\sin\theta$$

Question 2 **[10 Marks]**

Consider the following fragment of HTML code given in Figure 1.

```
1.  <! DOCTYPE html>
2.  <html>
3.      <head>
4.          <style>
5.              /* Add your CSS code here
6.           </style>
7.     </head>
8.     <body style="width: 50%">
9.          Web Programming
10.          <div class="box_1">
11.                 <p id="p_1">The first paragraph</p>
12.           </div>
13.           <div class="box_2">
14.                  <p id="p_2">The second paragraph</p>
15.            </div>
16.     </body>
17. </html>
```

Figure 1: HTML code

Write appropriate CSS selectors to display the expected output given in Figure 2. You need to set CSS properties according to Table 1. Write your code and save it in a file named **question2.html.**

Submit your answer to the elearning.

Notes:
For the initial file content, use the file **question2.html** provided.

Table 1: CSS properties

HTML element	**CSS style**
The first paragraph	Font family is "*Arial*". Text color is red.
The second paragraph	Font size is **30px.** Text alignment is center.
The first (*with class=”box_1”*)	The box is aligned to the right. The border width is 1px with black color. Box padding is **10px.** Box width is **200px.**
The second (*with class=”box_2”*)	The box is aligned at the middle under the first div. The border width is **5px** with blue color.

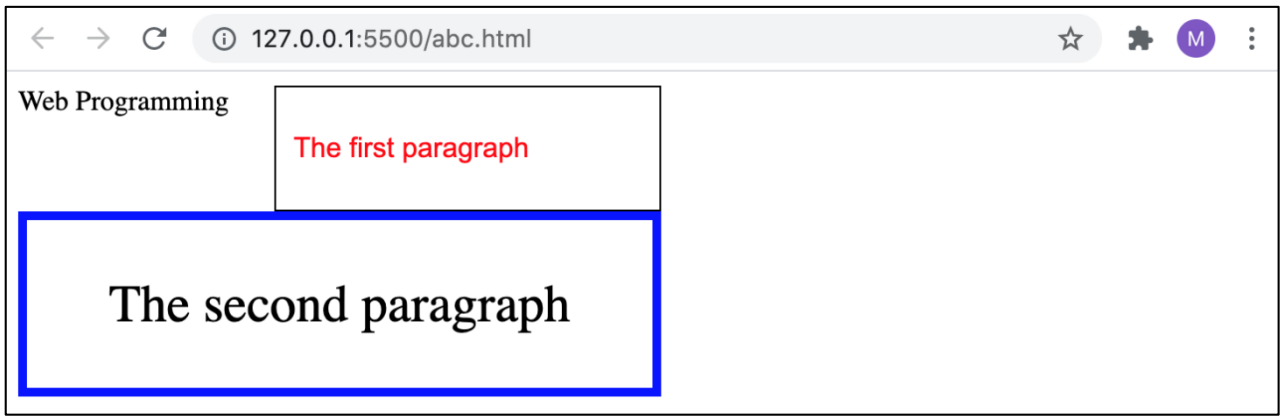


Figure 2: Expected output

Question 3 **[10 Marks]**

Based on the program excerpt below, construct a complete JavaScript function that checks the user input on the following:

a) Input fields must be filled.
b) Input field Username must be between 6 to 8 characters.
c) Input field ID must be a number.
d) Length of input for input field ID must be 5.

The validation will take place once the form is submitted. Use alert box to inform the user of the error. Write your code and save it in a file named **question3.html.**
Submit your answer to the elearning.

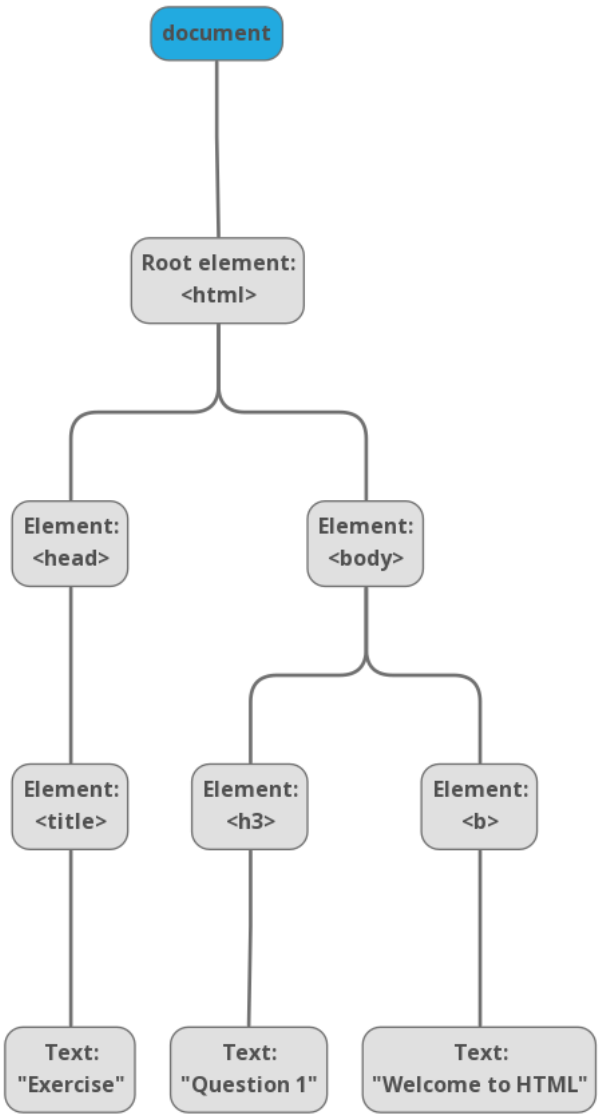
```
 <form action="" name="myForm" onsubmit="return(validate());">

<table cellspacing="2" cellpadding="2" border="1">

<tr>
    <td align="right">Username</td>
    <td><input type="text" name="username" /></td>
<tr>

<tr>
    <td align="right">ID</td>
    <td><input type="text" name="idNumber" /></td>
<tr>

<tr>
 <td align="right"></td>
 <td><input type="submit" value="Submit" /></td>
</tr>

</table>
</form>
```

Notes:
For the initial file content, use the file **question3.html** provided.

Question 4 **[5 Marks]**

Construct the HTML code based on the tree below. Write your code and save it in a file named **question4.html**

Submit your answer to the elearning.



QUESTION 5 **[20 MARKS]**

Answer all of Question 5 from part (a) to (e). Marks for each part is as indicated. Type your answer for each part in the provided **answer sheet**. Submit the completed answer sheet to e-learning.

A student registration system has been developed using PHP as its programming language and MySQL for its database. Given the name of the MySQL database as the following:

Database: `mydatabase`

and a table named `student` (Figure 5.1) in the database which are created with the following SQL statement:

```
create table student(
      student_id int not null auto_increment,
      student_name varchar(255),
      student_email varchar(255),
      student_matric varchar(255),

      primary key (student_id),
      unique(student_matric)
);
```

Figure 5.1: `student` table

a) Construct a configuration file using PHP that stores connection information to the database. This file will also check the status of the connection to the database. If the connection fails, the text "ERROR: Could not connect. " will be displayed.

Note: In the answer sheet, type the complete code for the configuration file. State the name of your configuration file.

[4 Marks]

b) A form named ***insert_form.html*** as shown in Figure 5.2 has been created. When a user fills out the form and clicks the submit button, the form data is sent for processing to a PHP file named ***insert_student.php*** to insert a new record to the `student` table. Using the database connection that you have created in Question 5(a), construct the complete code for ***insert_student.php***.

Note: In the answer sheet, type the complete code for the ***insert_student.php*** file only, you do not need to construct the codes for ***insert_form.html***

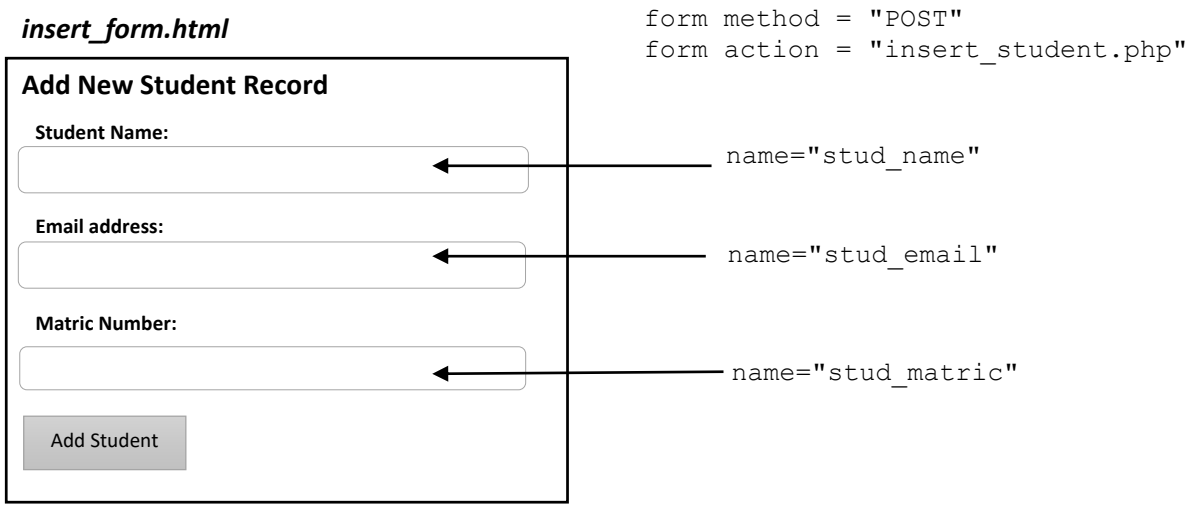


Figure 5.2: Form to insert a new record into the `student` table

[4 Marks]

c) Another form named ***search_form.html*** as shown in Figure 5.3 has been created. When a user fills in a matric number and clicks the submit button, the form data is sent for processing to a PHP file named ***view_student.php*** to display the record as shown in Figure 5.4. Using the database connection that you have created in Question 5(a), construct the complete code for ***view_student.php***

Note: In the answer sheet, type the complete code for the ***view_student.php*** file only, you do not need to construct the codes for ***search_form.html***

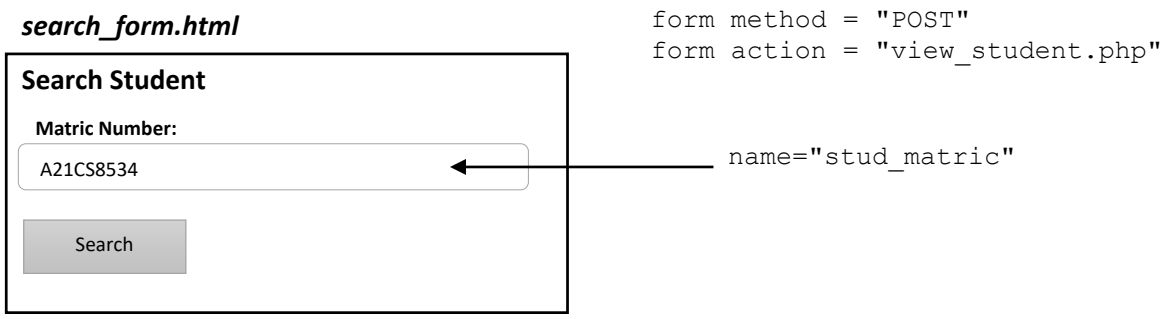


Figure 5.3: Form to search for a record in the `student` table

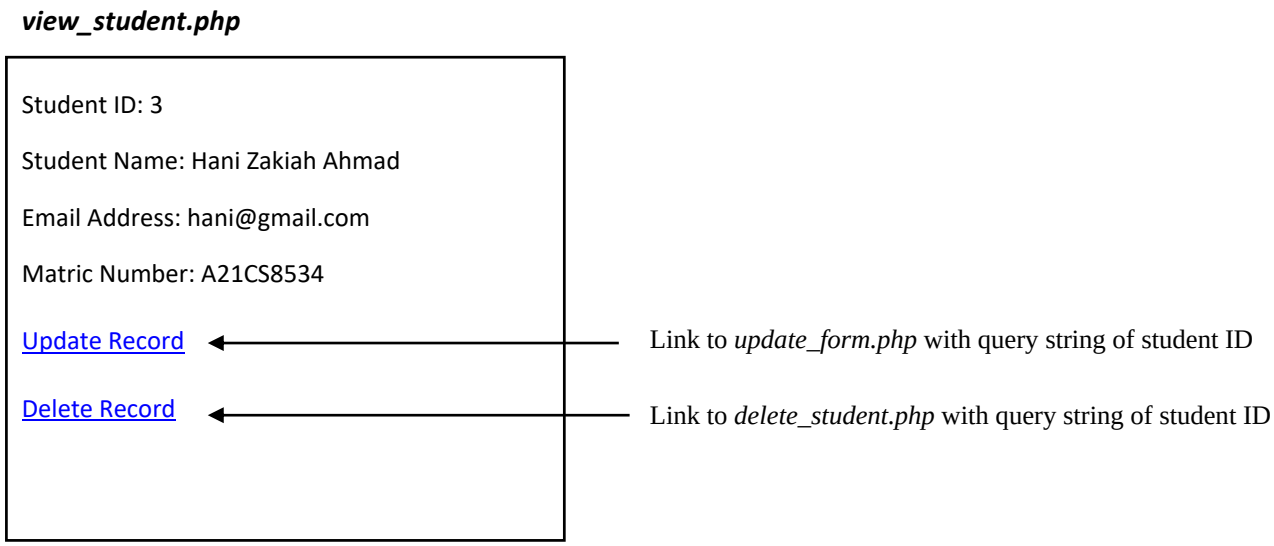


Figure 5.4: The retrieved record from `student` table

[6 Marks]

d) A form named ***update_form.php*** as shown in Figure 5.5 is returned to the client when the **Update Record** hyperlink (in Figure 5.4) is clicked on. When a user makes any changes and clicks the submit button, the form data is sent for processing to a PHP file named ***update_student.php*** to update the changes made to the record in the database. Using the database connection that you have created in Question 5(a), construct the complete code for ***update_student.php***

Note: In the answer sheet, type the complete code for the ***update_student.php*** file only, you do not need to construct the codes for ***update_form.php***

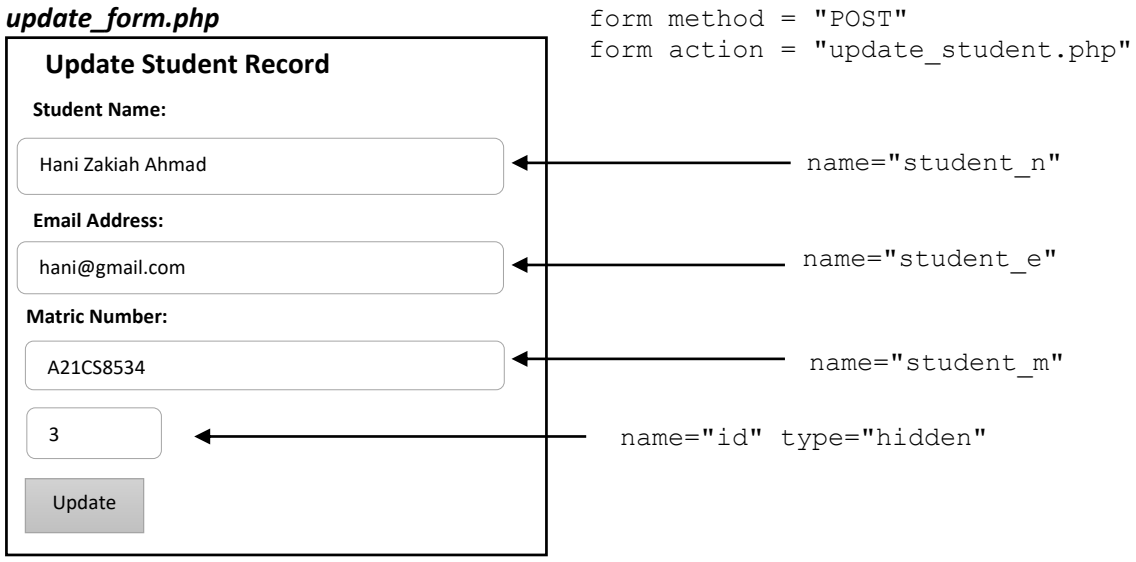


Figure 5.5: Form to update student record

[4 Marks]

e) Using the database connection that you have created in Question 5(a), construct the complete code for ***delete_student.php*** to delete the record from the `student` table when the **Delete Record** hyperlink (in Figure 5.4) is clicked on.

Note: In the answer sheet, type the complete code for ***delete_student.php***

[2 Marks]