



Seat No.

Student ID.

King Mongkut's University of Technology Thonburi

CSS327 Web Programming

Department of Mathematics, Faculty of Science

Final Exam 1/2014

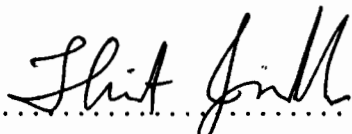
Monday 1st, December, 2014, 13:00-16:00

Your name

Please read the following directions and notes:

- No books, computers, or calculators are permitted.
 - Write your ID on every page of the exam. Write your name just on this cover page.
 - Answer each question completely, clearly, concisely, and precisely.
 - In coding problems, you may provide comments to explain your code.
 - There are 10 questions, 80 marks, and 12 pages in this exam.
 - The meanings in Thai of some words that you may not understand are provided on the last page.
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This exam has been approved by the Department of Mathematics.

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1. What do we need to have for hosting a PHP-based website? And how to do? [3 marks]

2. Consider a simple HTML form with two input fields and a submit button as shown below. [10 marks]

Name:

E-mail:

When a user fills out the form below (e.g. fill "Game" into the "Name" input field and "game.naja@math.kmutt.ac.th" into the E-mail input field) and clicks the submit button, the form data is sent for processing to a PHP file named "welcome.php". The "welcome.php" then displays the following output as an example

Welcome Game
Your email address is game.naja@math.kmutt.ac.th

2.1) Write the HTML form and welcome.php as shown above. The form data is sent with the HTTP POST method. [4 marks]

2.2) Write the HTML form and welcome.php as shown above. The form data is sent with the HTTP GET method. [4 marks]

2.3) Explain when to use GET method and when to use POST method. What are advantages and disadvantages of both the methods? [2 marks]

3. Assume that we have a MySQL database server. The IP of the database server is configured to 10.16.86.112 at port 3306. The username and password are "student" and "css327", respectively. Write PHP code to query names of all students (the attributes "firstname" and "lastname" in the table "tblExam") from the database "CSS" (i.e., database name) and print first name and last name of each student in a table as shown below. [15 marks]

First name	Last name
Pim	Onanong
Prite	Rungroj
Max	Maxky
Nate	Frame
YuunoYo	Mondial

```
<?php
```

```
// Define your variables
```

```
$servername = _____
```

```
_____
```

```
_____
```

```
_____
```

```
_____
```

```
// Create connection
```

```
$conn = _____
```

```
// Check connection
```

```
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
```

```
$sql = _____
```

```
$result = _____
```

```
_____
```

```
_____
```

```
// output data of each row
```

```
while($row = _____) {
```

```
_____
```

```
_____
```

```
_____
```

 }

 ?>

4. The following HTML page will display information from a database. When a user selects a student in the dropdown list below, a JavaScript function called "showStudent()" is executed. The ID of the selected student (i.e., s01, s02, s03, or s4) is passed to the function. Then the function sends a request with the ID to a server. After that the response according to the requested ID (student's information) will be shown in the element <div id="txtHint">. Implement the "showStudent()" function by using JavaScript and AJAX. Assume that this page will send a request to "response.php" on a server with the GET method and add the requested ID (e.g, id=s01) to the URL. DO NOT need to implement "response.php" [10 marks]

Select a student: ▼

Student info will be listed here...

```

<body>
<form action="">
<select name="student" onchange="showStudent(this.value)">
<option value="">Select a student:</option>
<option value="s01">Pim Onanong </option>
<option value="s02">Prite Rungroj</option>
<option value="s03">Max Maxky</option>
<option value="s04">Nate Frame</option>
</select>
</form>
<br>
<div id="txtHint">Student info will be listed here...</div>
</body>

```

5. What is jQuery? If we would like to use jQuery on our website, how can we do? Write code to reference the jQuery library in a web page file (i.e., how to add the jQuery library by using the HTML `<script>` tag) [5 marks]

6. Write jQuery code that can do the followings. [10 marks]

6.1) Prevent any jQuery code from running before the document is finished loading (is ready). [2 marks]

6.2) When a user clicks on any button, all <p> elements will be hidden. [2 marks]

6.3) When a user clicks on any button, the elements with id="test" will be hidden. [2 marks]

6.4) When a user clicks on a button, the elements with class="test" will be hidden. [2 marks]

6.5) When a user clicks on a <p> element, the element <p> itself will be hidden. [2 marks]

7. Consider the following HTML code with JavaScript. [10 marks]

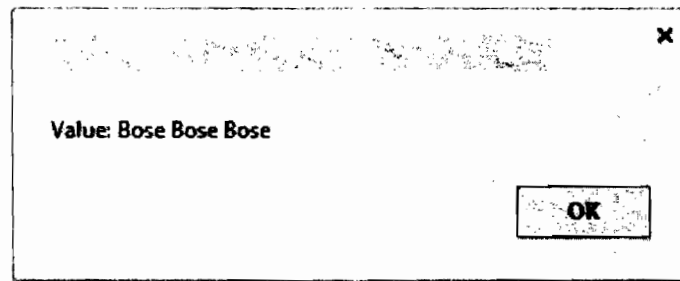
```
<html>
<head>
<script>
function popUp(){
var textToDisplay = document.getElementById("test").value;
alert("Value: " + textToDisplay);
}
</script>
</head>
```

```
<body>
<p>Name: <input type="text" id="test" value="Bose Bose Bose"></p>
<button id="btn" onclick= "popUp();">Show Value</button>
</body>
</html>
```

The web browser will display the above HTML as shown in the below figure.

Name:

When a user clicks on “Show Value”, a dialog box will pop up with the text “Value: Bose Bose Bose”.



Change the given code by using jQuery (instead of using the basic JavaScript code). Assume that the jQuery library is stored at “<http://cdn.kmutt.ac.th/jquery.js>”.

8. Answer the following questions. You will get 1 mark for each correct answer and 0 point if you do not answer. The total marks will be deducted by 0.25 mark for each wrong answer. [5 marks]

8.1) What is the correct JavaScript syntax to change the content of the HTML element below?

```
<p id="demo">This is a demonstration.</p>
```

- a. #demo.innerHTML = "Hello World!";
- b. document.getElementByName("p").innerHTML = "Hello World!";
- c. document.getElement("p").innerHTML = "Hello World!";
- d. document.getElementById("demo").value = "Hello World!";
- e. document.getElementById("demo").innerHTML = "Hello World!";

8.2) What scripting language is jQuery written in?

- a. JavaScript
- b. VBScript
- c. C++
- d. Java
- e. PHP

8.3) How do you get information from a form that is submitted using the "get" method?

- a. Request.Form;
- b. \$_GET[];
- c. Request.QueryString;
- d. document.getElementByGet();
- e. \$("GET");

8.4) What is the correct way to connect to a MySQL database?

- a. mysqli_db(host,username,password,dbname);
- b. mysqli_connect(host,username,password,dbname);
- c. mysqli_open(host,username,password,dbname);
- d. mysqli_init(host,username,password,dbname);
- e. mysqli_start(host,username,password,dbname);

8.5) Which statement is true?

- a. To use jQuery, you must buy the jQuery library at www.jquery.com
- b. To use jQuery, you do not have to do anything. Most browsers (Internet Explorer, Chrome, Firefox and Opera) have the jQuery library built in the browser
- c. To use jQuery, you have to develop your website in PHP.
- d. To use jQuery, you can refer to a hosted jQuery library at Microsoft.
- e. To use jQuery, you have to use JSON as data exchange format.

9. Answer the following questions. [7 marks]

9.1) What is JSON? [1 mark]

9.2) Given the following XML which defines an employees object with 3 employee records, change it to the JSON-syntax text which defines an employees object with an array of 3 employee records [2 marks]

```
<employees>
  <employee>
    <firstName>John</firstName> <lastName>Doe</lastName>
  </employee>
  <employee>
    <firstName>Anna</firstName> <lastName>Smith</lastName>
  </employee>
  <employee>
    <firstName>Peter</firstName> <lastName>Jones</lastName>
  </employee>
</employees>
```

9.3) Assume that your answer (the JSON-syntax text of the employees object) in the question 9.2 is a response requested by AJAX (i.e., xmlhttp.responseText) from a server. The response is then passed to "myFunction(response)". In the function, write JavaScript that can display the first name and last name of the first employee (i.e., John Doe) in the element <p id="demo">. [4 marks]

```
<html>
<body>
<h2>Create Object from JSON String</h2>
<p id="demo"></p>
<script>
// assume that the AJAX code here is hidden.
myFunction(xmlhttp.responseText);

function myFunction(response) {

}
</script>
</body>
</html>
```

10. What is Bootstrap and what is a responsive website design? How are they related? [5 marks]

Vocabularies

above	ด้านบน
according	ตามที่
assume	สมมติ
below	ด้านล่าง
change	เปลี่ยน
configure	ตั้งค่า
consider	พิจารณา
content	เนื้อหา
correct	ถูกต้อง
define	กำหนด
display	แสดงผล
executed	ถูกทำงาน
explain	อธิบาย
fields	ช่องสำหรับกรอกข้อมูล
fill out	เติม
finish	เสร็จสิ้น
following	ที่ตามมา
get	ได้รับ
hidden	ซ่อน
host	ดูแล รักษา
implement	สร้างขึ้น ทำขึ้น
itself	ตัวเอง
loading	กำลังดึงข้อมูล
output	ผลลัพธ์
passed	ถูกส่งผ่าน
pop up	แสดงหน้าต่างย่อย
prevent	ป้องกัน
processingประมวลผล	ประมวลผล
ready	พร้อม เรียบร้อยแล้ว
reference	อ้างอิง
related	เกี่ยวข้องกัน
respectively	ตามลำดับ
running	ทำงาน
selected	ถูกเลือก
sent	ถูกส่ง
statement	ประโยค ข้อความ
store	เก็บรักษา
way	วิธี
written in	ถูกเขียนด้วย