



UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF BACHELOR OF INFORMATION TECHNOLOGY (EXTERNAL)

Academic Year 2019 – 2nd Year Examination – Semester 3

IT3505: Web Application Development II

Part 2 - Structured Question Paper

**30th June, 2019
(ONE HOUR)**

To be completed by the candidate

BIT Examination Index No:

Important Instructions:

- The duration of the paper is **1 (one) hour**.
- The medium of instruction and questions is English.
- This paper has **2 questions** and **7 pages**.
- **Answer all questions.** All questions **do not** carry equal marks.
- **Write your answers** in English using the space provided **in this question paper**.
- Do not tear off any part of this answer book.
- Under no circumstances may this book, used or unused, be removed from the Examination Hall by a candidate.
- Note that questions appear on both sides of the paper.
If a page is not printed, please inform the supervisor immediately.

Questions Answered

Indicate by a cross (×), (e.g.

×

) the numbers of the questions answered.

	Question numbers	
	1	2
To be completed by the candidate by marking a cross (×).		
To be completed by the examiners:		

- 1) (a) Explain the functionality of the following JavaScript code.

```
$('document').ready(function () {
    alert($('p').length);
});
```

(10 Marks)

ANSWER IN THIS BOX

It prints the number of paragraphs in the document once the DOM is loaded.

- (b) Assume that the following script is saved with the name “**index.php**” in the “DOCUMENT_ROOT” folder of your computer where the Apache server runs.

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Record Data </title>
<script src="jquery.js"></script>
</head>
<body>
<h2> Registration Form </h2>
<form id='myForm' action="p01.php" method="POST">
<table border="1">
<tr>
<td>Registration number</td>
<td><input id='regno' type="text" name="rno"></td>
</tr>
<tr>
<td>Name</td>
<td><input type="text" name="Name"></td>
</tr>
<tr>
```

```

        <td colspan="2">
            <input type="submit" name="submit" value="Submit">
        </td>
    </tr>
</table>
</form>
</body>
</html>

```

Write a JavaScript by using JQuery to submit the form only when the Registration number entry is not blank. When the entry for the Registration number is blank an appropriate error message should be displayed.

(30 Marks)

ANSWER IN THIS BOX

```

<script>
    $(document).ready(function(){
        $('#myForm').submit(function(e){
            e.preventDefault();
            if ($('#regno').val()=='') {
                alert("Invalid form data");
            } else {
                alert("Form submitted");
                this.submit();
            }
        });
    })
</script>

```

- (c) Write a PHP script to display (echo) the number of cookies set by a browser.

(10 Marks)

ANSWER IN THIS BOX

```
<?php
    echo count($_COOKIE);
?>
```

- 2) All the parts of this question are based on the following MySQL database table “**mark**” in a database named ‘**exam**’. The **id** column contains an auto incremented integer and is the primary key of the table.

mark table

id	indexno	subjectcode	examyyear	marks
1	980001	IT3505	2018	70
2	980001	IT3501	2018	65
3	980002	IT3505	2018	42

Consider the following incomplete PHP script coded to retrieve data from the database table.

```
<?php

class Student{
    private $link;
    private $indexno;

    function __construct($link,$indexno){
        $this->link = $link;
        $this->indexno = $indexno;
    }

    /* Set the value of the class variable $indexno to the value of
       $index
    */
    public function setIndexNo($index) {

    }

    /* return the mark of the student given the subjectcode and year.
       If either indexno, subjectcode or year is not in the table the
       message 'mark not found'
       Should be returned
    */
    public function getmark($subjectcode,$year){

    }
}
```

```

/* return all the marks of the student as an un-orderd HTML list
   with the relevant subjectcodes and years sorted by the year.
*/
public function getAllMarks() {

}
}

$link = new mysqli('localhost','root','root123','exam');
if ($link->connect_error) {
    die("Database Connection failed: " . $link->connect_error);
}
/* Assume that the value for the variable $indexno is taken from an
HTML form */
$student = new School($link,$indexno);
?>

```

- (a) What is the name of the constructor of the PHP class **Student**? What is the functionality of the constructor?

(10 Marks)

ANSWER IN THIS BOX

Name of the constructor - `__construct()`

Main functionality:

- Assign values for the class variables \$link and \$indexno

- (b) Fill the body of the function `setIndexNo($index)`

(10 Marks)

ANSWER IN THIS BOX

```

public function setIndexNo($index){
    $this->indexno=$index;
}

```

- c) Fill the body of the function `public function getmark($subjectcode,$year)`

(10 Marks)

ANSWER IN THIS BOX

```
public function getmark($subjectcode,$year){
    $sql = "select marks from mark where indexno = '$this->indexno' and
           subjectcode='$subjectcode' and examyear=$year";
    $result = mysqli_query($this->link,$sql);
    if(!$result){
        return "mark not found";

    }else {
        $row = mysqli_fetch_array($result);
        Return $row['marks'];
    }
}
```

- d) Fill the body of the function `public function getAllMarks()`

(20 Marks)

ANSWER IN THIS BOX

```
public function getAllMarks(){

    $sql = "select marks from mark where
            indexno = '$this->indexno' order by examyear";
    $result = mysqli_query($this->link,$sql);
    $list = '<ul>';
    while($row = $result->fetch_assoc()){
        $list = $list . "<li>". $row["subjectcode"]. "-". $row["marks"]. "-".
        $row["examyear"]. "</li>";

    }
    $list .= '</ul>';
    return $list;
}
```
