



RAJATRATA UNIVERSITY OF SRI LANKA

FACULTY OF APPLIED SCIENCES, MIHINTALE

B.Sc.(General) Degree

Second Year-Semester I Examination –Oct/Nov 2015

COM2303 - Web Design

Answer All Questions

Time 2Hours

Assume you are developing a simple web site for the faculty of Applied Sciences. The questions 1 to 4 are based on such a web site.

1.

- i. State and give code for the new tags introduced in HTML5 to add multimedia in to web pages. (5 Marks)
- ii. Construct a home page by using HTML 5 semantic tags for layout designing. You are requested to add :
 - Three unordered list items of "Registration, Login and News " into nav area .
 - Hyperlink to list item "Registration" which links to "registartion.html.
 - Any text into article area.
 - "header.gif" image into header area, width and height of an image are 475px and 45px respectively. (12 Marks)
- iii. Construct a "registration.html" page by adding the following table and the form for course registration.(Form data should submit to "form_regist.php" file which will be created later) (8 Marks)

(CSS or any other presentation attributes are not required)

Faculty of Applied Sciences

Available courses for the semester

| Department | Course code | Status |
|------------|-------------|------------|
| Physical | COM2303 | Optional |
| | COM2202 | Compulsory |
| | ICT2404 | Compulsory |
| Biological | BIO2202 | Compulsory |
| | BIO2201 | Optional |
| | BIO2404 | Compulsory |

Registration Form

Please fill out this form selecting courses from the given table.

| | |
|--|---|
| Registration No. | <input type="text"/> |
| Enter Subject Code 1 | <input type="text"/> |
| Enter Subject Code 2 | <input type="text"/> |
| Enter email Address | <input type="text"/> |
| Enter Date | <input type="text" value="mm/dd/yyyy"/> |
| <input type="button" value="Submit"/> <input type="button" value="Clear"/> | |

2.

- i. Explain (describe an each case with a simple example) how CSS can be used to provide a consistent visual design throughout:
 - a) an entire website. (2 Marks)
 - b) a single web page (2 Marks)
- ii. Describe the following selectors with suitable examples:
 - a) Class selector
 - b) pseudo class selector
 - c) ID selector (1 Mark for each)
- iii. Write CSS rules as an external CSS file to change the appearance of the above home page according to the follows specifications :
 for a body tag :font size 13pt, font type Calibri, font color #00CC99,
 for aside tag:
 left margin 700px
 top margin 5px
 italic fonts and solid border (6 Marks)
- iv. Write CSS rules to change the table contents in the "registration.html" file as follows:
 - a. use "nth-of-type" selector to zebra striping each row of a table in deferent colours,
 - b. change the table header background color into #000099.
 - c. align COURSE CODE contents to center (10 Marks)

3.

- i. There are three places where you can put your JavaScript in a web site. Briefly explain each with suitable examples. (2 Marks)
- ii. Briefly describe the client side validation and server side validation. (3 Marks)
- iii. Identify the errors if any in the following JavaScript Code :

```
function ckeckfield
{
    var em = document.forms[0].elements[3].value;
    var posA = em.indexOf(@)
    var posD = em.lastIndexOf(.);
    if (posA < 1 and posD < posA+2 or posD+2 >=em.length)
    {
        alert("invalid data");
    }
    else
        alert("OK");

    return false;
}
```

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After making the corrections, what would be the expected results when you enter the following data:

- a. @rjt.lk
- b. a@rjt.lk
- c. sam@.lk

(5 Marks)

- iv. Add a JavaScript function to the above form in Question 1.iii to display the number of credits when you filling two subjects.(Notes: that the **fifth character** represents the credit rating of a course code. Use charAt function and onChange event handler to answer this question. The following screen shot is appeared when you try to fill next field).

(15 Marks)

The screenshot shows a web form titled "Regiatration Form" with the instruction "Please fill out this form selecting courses". The form contains the following fields:

- Registration No.:
- Enter Subject Code 1:
- Enter Subject Code 2:
- Enter email Address:
- Enter Date:

At the bottom of the form are "Submit" and "Clear" buttons. Overlaid on the form is a "JavaScript Alert" dialog box with the message "No. of credits selected= 5" and an "OK" button.

- 4.
- i. State reasons to prefer PHP among other server side scripts. (2Mark)
 - ii. Create an associative array to store three subject names and marks and to display all subject names and marks. (3 Marks)
 - iii. Explain PHP sessions using simple example. (5 Marks)
 - iv. The server has a database named COURSE, with a single table named COURSEREG. Table structure is given below.

| COURSEREG | |
|--------------|-------------|
| <u>regNo</u> | varchar(10) |
| sub1 | varchar(6) |
| sub2 | vrchar(6) |
| Email | varchar(20) |
| dateOfReg | Date |

(You may assume the web server and the database server are in the same machine)

- a) Write code to connect to the database. (2 Marks)
- b) Write code to store the details submitted from the form in the above question (1.iii) into the database. ("form_regist.php") (5 Marks)
- c) Write code to retrieve and display (in an appropriate format) the details of all registered students in the database who were taken COM2303. Use `mysql_fetch_array()` function to answer this question. (8 Marks)