



RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

BSc in Applied Sciences
Second Year - Semester I Examination – June/July 2022

COM 2303 – WEB DESIGN

Time: Three (03) hours

- **Answer ALL the questions.**
- This paper counts 50% of the final evaluation.

1. a) Briefly explain **client-Server architecture**. **(03 marks)**

b) Write HTML code to display the following table. **(08 marks)**

Day	Seminar		
	Schedule		Topic
	Start	End	
Monday	9.00 am	2.00 pm	Introduction to WWW
			Introduction to HTML
Tuesday	9.00 am	11.00 am	CSS
	11.30 am	1.00 pm	JavaScript
	1.30 pm	3.00 pm	PHP

- c) Write an HTML program to create the following registration form with relevant validations. The form should contain,
- i. Text fields to enter a name, Email address, Phone No, and a Text area to enter an address.
 - ii. Password fields to enter the password and confirm the password.
 - iii. Radio buttons to enter gender type.
 - iv. Dropdown list for selecting the qualification. (BSc, MSc, PhD)
 - v. Submit and reset buttons. When submit button is clicked, it should go to action_page.php. and Reset will clear all the fields.
- (14 marks)**

2. a) CSS provides class and id selectors. Write down two benefits of using such selectors.

(03 marks)

- b) Write a CSS style specification rule that would make all unordered lists (tags) have square bullets and a purple background.

(04 marks)

```
ul {
  list-style-type: square;
  background-color: purple;
}
```

- c) Consider the following HTML code and apply the styles as given in the instructions below.

```
<h1>Introduction to Computers</h1>
<p>This course design for Computer science and IT students</p>
<p>All students should be here</p>
```

- i. Write an internal CSS to make the header 1 and paragraphs in the web page appear in "Times new roman" font and center align.
- ii. Write an internal CSS to make the header 1 color red with a bold, green border around it
- iii. Write an internal CSS to make the first paragraph color blue and the second paragraph color red.
- iv. Write the code for adding header 2 with the following styles.
 - a. Add a second heading with the text "Seminar 01," bolded and italicized.

(10 marks)

- d) Assume you're planning to create a web application for ordering restaurant food from online. The user can log in, choose an item, and then place an order. (The user can change the order item by adding extra cheese or chicken.) Name, phone number, address, and email address must be included on the order page.

- i. Sketch the following pages for above system.
 - a. In Foods category page, display all the food categories All foods should have name and price.
 - b. Order page should contain customizing properties of the food categories

(08 marks)

3. a) Write the equivalent script for the following code using **for loop** without affecting the output

```
<script type="text/javascript">
var count=new Array();
i=0;
do{
  if(i%2 == 0)
    count[i] = 1;
  else
    count[i]=i*10;
  i=i+1;
}while(i<=5)
window.alert(count);
</script>
```

(05 marks)

- b) Give the outputs of the following code segments.

i.

```
<script type="text/javascript">
var sum,a;
sum = 0;
a = 1;
do{
  sum = sum + a;
  a = a+2;
}while(a<=8)
window.alert(sum);
</script>
```

(03 marks)

ii.

```
<script type="text/javascript">
var A,B,C;
A = (10*3)%(4/2);
B = 40%3;
if(!(B >= A))
  C=5;
else
  C=10;
window.alert(C);
</script>
```

(03 marks)

c) i. Find all the bugs in the following JavaScript code.

(03 marks)

```
//Testforjokes
var joke="JavaScriptwalkedintoabar...";
var toldJoke="false";
var $punchline= "Betterwatchoutforthosesemi-colons."
var %entage=20;
var result
if(toldJoke==true){
    window.alert($punchline);
}else
    window.alert(joke);
}
```

ii. Write down the javascript function (getPower()) that displays the squared value of a user input value. As an alert, the squared value should be displayed. (Hint: use Math.pow function)

(04 marks)

iii. Write down the javascript function that will update the text in the paragraph when the button is clicked. (the text "welcome to applied sciences" should be changed as "This is the faculty of Applied sciences at Rajarata university")

Click on the button to change the text of a paragraph

Welcome to Applied sciences

Click Here!

(04 marks)

d) Explain the difference between GET and POST methods.

(03 marks)

4.

a) Consider question 1, part c (form). Get the values of name, email address and phone number in the HTML form and display them on "action_page.php".

(06 marks)

b) Consider the following php code segment and User table. User table contains the uname and password of each user as follows.


```

<?php
include "config.php";

if(isset($_POST['but_submit'])){
    //get data from form
    $uname = $_POST["uname"];
    $password = $_POST["password"];
    if ($uname != "" && $password != ""){
        $sql_query = "select * from User where uname='".$uname."'
            and password='".$password."'";
        echo $uname;
        $result = mysqli_query($con,$sql_query);
        if (mysqli_num_rows($result) === 1) {
            $row = mysqli_fetch_assoc($result);
            if ($row['uname'] === $uname && $row['password'] === $password) {
                echo "Logged in!";
            }else{
                echo "Invalid username and password";
            }
        }
    }
}
?>

```

uname	password
zigma	123@153
alpha	M23@65
beta	452@325

Write the output of above php code section assuming that you have been logged in with the following username and password.

- i. uname: zigma
 password: 123@164
- ii. uname:gama
 password:452@325
- iii. uname: beta
 password:452@325

- c) Describe the differences between sessions and cookies. (04 marks)
- d) Write the PHP codes to get the reverse of the string: "Rajarata University of Sri Lanka." and get the word count of it. (04 marks)
- e) Briefly explain, the use of XMLHttpRequest object in AJAX? (05 marks)

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