



**Faculty of Computing and Technology**

**Department of Computing**

**Bachelor of Science (Hons) in Software Engineering**

**End - Semester Examination**

**Year 2024, Semester 3 – Batch 01**

**SE 2104 – Web Technologies**

**Duration: 3 Hours**

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**Instructions to the candidates:**

1. Answer **ALL** the questions.
2. Illustrate your answers with clear diagrams wherever applied.
3. The paper is marked out of 100 Marks.
4. Follow the General Guidelines given by the Department of Examination for exam Start time and closing time.

### Question 01

- a) State three (03) services of Internet. (03 marks)
- b) Briefly explain the main goal of implementing responsive web designs. (02 marks)
- c) Distinguish between the Internet and the World Wide Web (WWW). (04 marks)
- d) Expand the following acronyms and briefly explain each term. (08 marks)
- i. HTTP
  - ii. FTP
  - iii. URL
  - iv. ISP
- e) You are asked to create a web site/web application to maintain and display Saegis Students Exam Results. Select your choices from the requirements below and explain your selections. (08 marks)
- i. Static or Dynamic content
  - ii. Development languages
  - iii. Database
  - iv. Network (LAN, WAN)
- [Total = 25 marks]

### Question 02

- a) List three (03) types of Internet attacks. (03 marks)
- b) State two (02) advantages of using JavaScript when developing a web site. (04 marks)

c) Examine the following HTML Code:

```
<form name="myform" onSubmit="displayMark();">
<p>
<label for="mark"> Enter your mark: </label>
<input type="text" size="10" name="mark" id="mark"/>
</p>
<input type="submit" value="Submit"/>
</form>
```

- i. Write a JavaScript function displayMark( ) to output the following classification based on the mark entered:

Above 70 – Distinction  
60 – 69 – Good Pass  
40 – 59 – Credit Pass  
0 – 39 Fail

(10 marks)

- ii. If the mark is outside the range of 0 to 100 then the user must be told to enter in a number between 0 and 100.

(08 marks)

*Sample output of i.*

Enter your mark:

**This page says**  
Your grade is: Distinction

*Sample output of ii.*

Enter your mark:

**This page says**  
Please enter a number between 0 and 100.

[Total = 25 marks]

### Question 03

a) State two (02) benefits of using Cascading Style Sheets (CSS).

(04 marks)

b) Draw the output of the following HTML code segment when rendered by a web browser.

```
<html>
<body>
<u> Important Sites </u>
<ul>
<li><a href= "www.mohe.gov.lk/index.html">Ministry of Higher Education</a></li>
<li><a href= "www.ugc.ac.lk/index.html"> University Grants Commission</a></li>
</ul>
<p>
<center>BSc Hons Degree Programmes<br/> End Examinations
<br/>Saegis Campus, Nugegoda </center></p><hr>
</body>
</html>
```

(06 marks)

c) Consider the following HTML code segment.

```
<body>
<h1> Introduction to Web Technologies </h1>
<h3> HTML </h3>
<p> HTML is the standard markup language for creating web pages </p>
</body>
```

Write down the internal styles required to apply the styles mentioned in the following table for the elements *h1* and *p* in the above code segment.

Element Name	Attribute	Attribute Value
<i>h1</i>	<i>color</i>	<i>blue</i>
	<i>text-align</i>	<i>centre</i>
	<i>font-family</i>	<i>Arial</i>
<i>p</i>	<i>background-color</i>	<i>Yellow</i>
	<i>font-size</i>	<i>12px</i>

(15 marks)

[Total = 25 marks]

#### Question 04

<b>Customer Details</b>
Customer Name: <input type="text"/>
Phone Number: <input type="text"/>
Email: <input type="text"/>
Pick up Address: <input type="text"/>
<b>Vehicle Details</b>
Vehicle type: <input type="text" value="Car"/>
Air Condition: <input checked="" type="radio"/> With AC <input type="radio"/> Without AC
Tour Staff: <input checked="" type="radio"/> Yes <input type="radio"/> No
<b>Date Details</b>
Start Date: <input type="text" value="mm/dd/yyyy"/> <input type="button" value="Calendar"/>
End Date: <input type="text" value="mm/dd/yyyy"/> <input type="button" value="Calendar"/>
<input type="button" value="Submit"/>

- a) Construct html code ("*vehicledetail.html*") to display the above form. Your form method should be *post* and action page name should be "*insert\_vehicledetail.php*".

(05 marks)

- b) You have a database "*vehicle\_db*", inside that there is a table name "*vehicle\_booking*". Username for the database is "*root*" and the password is *con@34#!*

- i. Write a "*config.php*", to create a mysqli database connection object.

(04 marks)

- ii. What is the main advantage of using mysqli database connection as a separate file "*config.php*"?

(02 marks)



- c) Create a php file ***“insert\_vehicledetail.php”*** and complete it by adding php codes for following requirements.
- Import ***“config.php”*** file. (01 mark)
  - Capture all the user inputs you received from ***“vehicledetails.html”***. (03 marks)
  - Insert data into ***“vehicle\_booking”*** table by using an insert query. (04 marks)

The structure of the table (***“vehicle\_booking”***) is as below.

name	phone	email	address	vehicle_type	air_condition	starting_date	end_date

- d) Create a php file ***“display\_vehicledetail.php”*** and display a record (according to the sample output format given below) available in the table ***“vehicle\_booking”***.

(06 marks)

*Sample output:*

**Customer detail:**

Customer Name: Namali Gamage

Customer Email: namaligamage@gmail.com

Customer Phone Number: 0773452312

Customer Address: No 17, Galle rd, Colombo 07

**Vehicle details:**

Vehicle Type: SUV

Air Condition: Yes

Starting Date: 22/03/2018

End Date: 25/03/2018

[Total = 25 marks]

\*\*\*\*\* End of the Paper \*\*\*\*\*