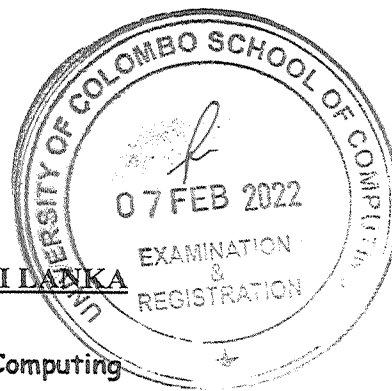




UNIVERSITY OF COLOMBO, SRI LANKA

University of Colombo School of Computing



BACHELOR OF SCIENCE IN INFORMATION SYSTEMS

First Year Examination – Semester II – 2021/2022



IS1109 – Programming for Web Application Development

(Part B)

TWO (2) HOURS (for both parts A & B)

64

To be completed by the candidate

Examination Index No:

Important Instructions to candidates:

1. The medium of instruction and question is **English**.
2. Write your answers in **English**.
3. If a page or a part of this question paper is not printed, please inform the supervisor immediately.
4. Note that questions appear on both sides of the paper. If a page is not printed, please inform the supervisor immediately.
5. Write your index number on each and every page of the answer paper.
6. This paper has **1** question in 05 pages.
7. Answer **ALL** questions. All questions carry equal marks (**25** marks).
8. **This paper consists of two parts, Part A (Question No 1, Question No 2 and Question No 3) and Part B (Question No 4), and submit separately.**
9. Any electronic device capable of storing and retrieving text including electronic dictionaries and mobile phones are not allowed.
10. calculators are **not allowed**.

For Examiner's use only

Question No	Marks
4	
Total	

Part B

Question 4

(a)

Explain the difference between a framework and a library in your words.

[02 Marks]

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(b)

CodeIgniter is based on MVC architectural pattern. Explain the MVC architecture using a suitable diagram.

[06 Marks]

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(c)

Write down four main advantages of using a framework such as CodeIgniter to develop a website instead of developing the system from scratch.

[04 Marks]

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(d)

Assume you have setup a CodeIgniter based website inside the root directory of your local server (e.g. XAMPP/WAMP). "*customers.php*" controller contains "*getCustomerInfo()*" function and it accepts the customer id as the only parameter.

Write down a valid URL to call the "*getCustomerInfo()*" function according to the CodeIgniter 3 URL structure.

(Hint: Assume the "*index.php*" is excluded from the URL using a ".*htaccess*" file).

[05 Marks]

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(e)

State the importance of following modules in CodeIgniter 3 framework. [1x3 = 03 Marks]

(i) Routing module

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(ii) Caching module

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(iii) Libraries

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(f)

Assume that you were asked to write a function inside a CodeIgniter controller file to get all the customer details from "customers" table. You have the following details.

- Function name in the controller should be "index".
- Model file to communicate with database table is "customers_model.php".
- Model file contains the function "get_all_customers()" to retrieve customer information.
- The view file to present all data is "view_customer_details.php".
- You have \$data['customer_details'] array to temporarily hold data in the controller.

Write down the "index()" function inside the controller to retrieve all customer records by calling the given function in the model and pass the data to view for displaying the results in the front-end.

[05 Marks]

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