

Uva Wellassa University of Sri Lanka  
Faculty of Science and Technology  
Department of Computer Science and Technology  
100 level 2<sup>nd</sup> Semester Examination - Dec./ Jan. 2017  
CST123-2 Web Application Development - I



**Part C**

**Number of questions: Two (02)**

**Mark allocation: 50**

1.
  - a. What is the Internet Protocol (IP)? (2 mark)
  - b. Briefly explain differences between static and dynamic web pages. (5 mark)
  - c. "The Internet works on packet switching". Explain. (8 mark)
  - d. Explain the architecture of the web browser using a suitable diagram. (10 mark)
  
2. Suppose you have been assigned to develop a website for your university library. Initially you have to design web pages for displaying the details of the library, available books' details and journals. In the next phase, the website has to be extended by adding a user logging page and a book reservation page. Then the user can log into the system and can see the list of books borrowed, issued date and return date. Also users can request new books for the library by filling the book request form.
  - a. Discuss the techniques that you are going to use to design the website with considering its future expansion. (6 mark)
  - b. Write the HTML code for the web page design given in the following figure (Figure 1). (10 mark)  
(Note: book1.jpg, book2.jpg and book3.jpg are the images in the table)

Borrowed Book	Issued Date	Return Date
A Study in Scarlet Novel by Arthur Doyle, John Gielgud, Orson Welles, and Ralph Richardson	2016/12/26	2016/01/26
The Tempest Play by William Shakespeare	2016/12/27	2016/01/27
The Call of the Wild Novel by Jack London	2016/12/31	2016/01/30

  

**Request a book**

Book Title:

Author Name (if known):

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Figure 1: The design of the web page

- c. Write a sample JavaScript code to display an alert, based on the role when user logs into the system. The roles and the corresponding message are given below. (9 mark)

Role	Message
Administrator	"You login as an administrator"
Student	"You login as a student"
Lecturer	"You login as a lecturer"
Other	"You login to the common page"