

Uva Wellassa University, Sri Lanka
End Semester Examination – June 2009
CST306-3 Web Development Technology



PART – B

Time: Two (02) hours

Total 02 Questions

Answer all questions

Login to the university Course Management System (CMS) and download the files in the “Final Examination”. After completing the activities, save and upload your files (answers) to the Course Management System. All the figures are given in the file “figures.doc”. The content of the web pages are given in the file “content.doc”. You could copy them into your html and xml files.

- 01) An organization requires a web page to show the interesting places in Badulla. Design a web page, named badulla.html in XHTML as shown in Figure 1.1. Your web page should use a frameset. The frame structure is given in the Figure 1.2 and the documents in each frame should be as described below.

Document in Frame: banner

A banner with the file name “banner.html” as shown in Figure 1.3. Apply the “banner.jpeg” as the background. The heading “Badulla” should be centered. Set the font size to 32 and colour to yellow.

Document in Frame: content

A content page with the file name “introduction.html” as shown in the Figure 1.4.

Document in Frame: menu

A menu as shown in Figure 1.5. Apply a suitable background colour. When the user clicks on the link “Bogoda bridge” the document, “bogoda.html” is to be loaded into the frame content. The description of the document “bogoda.html” is given below.

The page named “bogoda.html” is shown in Figure 1.6. Using a table arrange the details of the page as shown in the figure. The topic should be centered in the cell. Use the image “bogoda.jpeg”. Create an anchor link to the image so that when the user clicks on the image, bogoda.jpeg, a large size image of the image should be loaded in a different web page.

When the user clicks on the link “Comments” the document “commet.html”, as given in Figure 1.7, should be loaded in a different page. Include a JavaScript function to validate the form once the user selects the “submit” button. If it violates any of the validations then an alert should be prompted to notify the user. Validations should include the following:

- i. First name and last name should be all letters
- ii. Telephone number should be all numbers, 10 digits and the first digit is 0
- iii. Number of characters entered in the “comments” box is less than 150 characters.

(30 marks)

- 02) A lecturer in the “Badulla Higher Education Academy” wants to create XML documents with course contents of each course which he conducts.

The course content document must contain *course code, number of credits, course title, course type, pre-requisite, lecturer in charge, objectives, learning outcomes, contents, method of assessment* and *note*. Course units may have one or more pre-requisite courses and if there are none it is stated as “None”. Some course units may have a note. Also there may be more than one objective. The course type is either Core or Compulsory or Optional and the default is Core. The method of assessment may have one or more of the following methods:

- End of semester examination
- Mid semester examination
- Assignment
- Laboratory

In each case, the weight of each component should be given as a percentage value.

- i. Create an XML document (use the file “course.xml”) that marks up the course details given in the file “content.txt”.
- ii. Insert an internal DTD for the lecturer that can be used to validate his XML documents.
- iii. Create an XSL stylesheet (use the file “course.xsl”), for the XML document you created above, that displays the course content into an XHTML sorted (sort by the course code) list. The format of the topics which has more than one item is given below:

- Pre-requisites - a comma separated list on the same line
- Objectives - a bulleted list
- Learning outcomes - a numbered list
- Contents - main topic on one line and the subtopics indented on the next lines.
- Method of assessments - each on separate line with the percentage value.

It should also display the total credits of the courses.

A sample document is shown in the file “courses.doc”.

(30 marks)

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