

DUBLIN INSTITUTE OF TECHNOLOGY  
KEVIN STREET, DUBLIN 8.

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# **BSc. (Honours) Degree in Computer Science**

Year 1

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**SEMESTER 2 EXAMINATIONS 2011/2012**

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## **Web Development I**

Ms. Cindy Liu  
Dr. Deirdre Lillis

Friday 25<sup>th</sup> May  
4.00 p.m. – 6.00 p.m.

Answer question (1) and *any two* of questions (2), (3), (4)

Question (1) is worth **40** marks.  
Questions (2), (3), (4) are worth **30** marks each

1. (a) (i) What is the difference between the *Internet* and the *World-Wide-Web*? (4 marks)
- (ii) When configuring an image map, describe the relationship between the <image>, <map> and <area> tags. (6 marks)
- (b) (i) You are designing a survey form for a client. One of the questions has 6 possible responses. Only one response can be selected per question. What type of form element would you use to configure this question on the Web page? (2 marks)
- (ii) Provide the HTML code necessary to create this element in a form. (4 marks)
- (iii) What does the following frame-set definition mean for a browser window that is 1000 pixels wide?  
<frameset cols="25%, 450, 2\*,\*"> (4 marks)
- (c) (i) What does HTML stand for? (2 marks)
- (ii) Who is making the Web standards? (2 marks)
- (iii) Which type of XHTML list will automatically number the items in the list. Use code to support your answer. (6 marks)
- (d) (i) What is correct XHTML for a horizontal line? (2 marks)
- (ii) Choose the correct HTML tag for the largest heading (2 marks)
- (iii) Name three advantages that layers have over tables? (6 marks)

2. *SeaSurfing.com* is a surfing equipment renting web-site. The website has a number of web pages and uses embedded CSS to style each web page. The site uses an image as its background (. The text colour, throughout the web-site, is black (#000) and the background colour is white. The web-site uses tables for its page layout.

(a) Describe *three* advantages in using CSS in a commercial web-site?

(6 marks)

(b) Write the CSS code, to apply the following style characteristics to *SeaSurfing.com*:

- Background image – Sea.gif
- Font colour #000

(4 marks)

(c) How would an external CSS file be referenced in a web page?

(6 marks)

(d) Why would it be advantageous to use CSS in an external file rather than embedded CSS in *SeaSurfing.com*?

(6 marks)

(e) Write the CSS code to apply the following table characteristics to *SeaSurfing.com*:

- Text alignment is centre
- The height of the table should take up the whole page
- The table has no border
- The table width is set to 100%

(8 marks)

(12 marks)

3. (a) (i) Describe *two* reasons for using tables in a Web page.

(6 marks)

(ii) Describe two ways that layers can be positioned on a web page?

(6 marks)

(iii) How will the following piece of html code be rendered, and why?

```
<div style="width: 200px; background: gray; float:left;">Layer 1</div>  
<div style="width: 200px; background: red; float:left;">Layer 2</div>
```

(6 marks)

(b) Write the html code for the following tables:

**Cell that spans two columns:**

Name	Telephone	
Bill Gates	555 77 854	555 77 855

(6 marks)

**Cell that spans two rows:**

First Name:	Bill Gates
Telephone:	555 77 854 555 77 855

(6 marks)

4. (a) What are the possible basic elements in a form?

(7 marks)

(b) How can form information be sent in an email?

(4 marks)

(c) Write the html code for the following form:

**Please fill in the registration form below:**

**First name:**

**Last name:**

**Gender:** ☐ Male ☐ Female

**What transport equipment do you have:**

☐ I have a bike

☐ I have a car

**If you click the "Submit" button, the form-data will be sent to a page called "html\_form\_action.asp".**

(9 marks)

(d) What is the html code for a password box in a form?

(4 marks)

(e) Form data can be validated using JavaScript. Write a function to validate if the Customer Information Name has been entered.

(6 marks)

