

S265/104, S265B/104
S265D/104, S217P/104

DUBLIN INSTITUTE OF TECHNOLOGY
KEVIN STREET DUBLIN 8

CMP4 4063

DT265 Higher Diploma in Computing
DT265B Higher Diploma in Computing
DT265D Higher Diploma in Computing
DT217P Postgraduate School of Computing
(CPD)

SEMESTER 2 EXAMINATIONS 2013-2014

WEB AND USER INTERFACE DESIGN
[DT265, DT265B, DT265D, DT217P]

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Wednesday-28-May
9.30 - 11.30

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) Discuss the *Gestalt laws* in terms of interface design. Use examples to support your answer.
(10 marks)
- (b) What is the meaning of the term, *search engine optimisation* (SEO)?
(3 marks)
- (c) Outline *four* SEO guidelines that should be employed when designing websites. Use code where necessary.
(8 marks)
- (d) Discuss the use of **grids** in web design.
(3 marks)
- (e) Describe *two* grid principles that can be used in web design.
(6 marks)
- (f) In terms of CSS (Cascading Style Sheets), what is the difference between **classes** and **ids**?
(4 marks)
- (g) There are various choices of layout available to a web designer – *fixed-width*, *fluid*, *elastic* and *hybrid*. Discuss the meaning of a fluid layout and an elastic layout. Use code to support your answer.
(6 marks)

2. (a) What is the *Document Object Model* in Javascript?

(8 marks)

(b) Write Javascript code which will change the text of the following layer from “I hate DOM” to “I love DOM”.

<div id = “myParagraph”>I hate DOM</div>

(6 marks)

(c) Write Javascript code that will change the font-size of the layer “myParagraph” in 2(b) to 20 pixels.

(6 marks)

(d) What is the meaning of *event handling* in Javascript? Use code to support your answer.

(6 marks)

(e) When a link in a web page is hovered over, a message stating “Don’t click this link” appears in an alert box. Write the Javascript code for this.

(4 marks)

3.

- (a) Describe *three* ways that **accessibility** be addressed in forms? Use code to support your answer.

(6 marks)

- (b) Write the code for a form which has the following form elements:

- i. Two text boxes named *name* and *address* to accept the name and address of a user. Ensure that the user can type up to 30 characters in both the boxes.

(3 marks)

- ii. A multi-line text input control that would accept 10 lines of text with each line having maximum 50 characters.

(3 marks)

- iii. A radio button list of two options: male and female.

(3 marks)

- iv. A check box list of the options: student, professional, entrepreneur, and others.

(3 marks)

- v. A button of width 30 pixels and height 10 pixels, which uses the image 'submit.jpg' on it.

(3 marks)

- vi. A spinner control that allows the user to enter numbers from 1 to 10.

(3 marks)

- vii. A color picker for the user.

(3 marks)

- viii. A calendar control for the user.

(3 marks)

4. (a) Describe the **four** types of CSS. Use code to support your answer. (8 marks)
- (b) The CSS positioning properties allow you to position an element. Discuss the **four** positioning methods using code to support your answer. (8 marks)
- (c) How do CSS precedence/cascading rules work? (4 marks)
- (d) Write the code for a horizontal navigation menu, using an unordered list (using CSS and HTML where necessary). (4 marks)
- (e) **CSS3** is the latest CSS standard. Discuss *three* new features of CSS3. Use code to support your answer. (6 marks)