

S8265/104C, S8266/104C, S8900/104C



DUBLIN INSTITUTE OF TECHNOLOGY

DT8265 Higher Diploma in Computing
DT8266 Fundamentals of Computing Diploma (CPD)
DT8900 International Pre Masters
for MSc in Computing

SUMMER EXAMINATIONS 2014/2015

WEB & USER INTERFACE DESIGN [CMPU4063]

MS. ANDREA CURLEY
DR. DEIRDRE LILLIS
PROFESSOR MARY SHARP

WEDNESDAY 27TH MAY

9.30 A.M. – 11.30 A.M.

TWO HOURS

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) Outline *five* guidelines for designing an interface for a young user (approximately 8 years old).
(10 marks)
- (b) i. What is the meaning of a *mental model*?
(3 marks)
- ii. How are mental models relevant to web design?
(3 marks)
- (c) You are creating a website with `index.html` as the homepage and `styles.css` as the CSS stylesheet. Perform the following tasks stating where you are putting the code.
- i. Link the html file (*index.html*) to the css stylesheet (*styles.css*).
(4 marks)
- ii. Put the background of the website as an image.
(4 marks)
- iii. Make the main heading white, centre-aligned, with a font of Times New Roman and a size of 48.
(4 marks)
- iv. Style the hyperlinks as follows:
Red and in italics – when hovering, white – before being clicked and white – after being clicked.
(4 marks)
- v. Put the following text - "Copyright © 2015 My Designs, All rights reserved" - into a footer, with a background of red, and all text right-aligned.
(8 marks)

2. (a) What is JavaScript?

(3 marks)

(b) Where should JavaScript be put on a page? Explain your answer.

(6 marks)

(c) Write the JavaScript code that will output the correct year in the footer in 1(c)(v).

(8 marks)

(d) How can the **speed** of a website be measured?

(4 marks)

(e) Outline three ways of increasing the speed of a website. Use code, where appropriate.

(9 marks)

3. (a) Using the website created in 1(c):
- i. Centre the main content of the page.
(5 marks)
 - ii. Push the main content down 20px.
(5 marks)
- (b) Outline **two** features that HTML5 has over XHTML. Use code to illustrate these features.
(8 marks)
- (c) What are the **advantages** and **disadvantages** of flat user interface design.
(12 marks)
4. (a) Discuss the *Gestalt laws* in terms of interface design. Use examples to support your answer.
(10 marks)
- (b) What is the meaning of *Miller's Chunking* in terms of interface design. Use examples to support your answer.
(6 marks)
- (c) What is the meaning of *Rule of Thirds* in terms of interface design. Use examples to support your answer.
(6 marks)
- (d) Prototype the home page of sports hobby website, using at least two of the Gestalt laws, Miller's Chunking and the Rule of Thirds. Highlight exactly where these have been used.
(8 marks)