DUBLIN INSTITUTE OF TECHNOLOGY

DT265A/1 Higher Diploma in Computing

DT265C/1 Masters Qualifier for MSc in Computing

DT8900/1 International Pre Masters for MSc in Computing

WINTER EXAMINATIONS 2018/2019

WEB & USER INTERFACE DESIGN [CMPU4063]

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WEDNESDAY 16TH JANUARY 9.30 A.M. – 11.30 A.M.

TWO HOURS

INSTRUCTIONS TO CANDIDATES

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.   Discuss the term *flat design* in terms of interaction design.

(6 marks)

   ii.   Discuss the term *flat design 2.0*, stating the differences between it and the term discussed in 1(a)(i) .

(6 marks)

(b)   Discuss how an *anchor link* is used in a HTML webpage. Use code to support your answer.

(9 marks)

(c)   i.   Outline how the *<meta> tag* is used in a HTML web page.

(4 marks)

   ii.   Discuss **three** uses of the <meta> tag providing code for each use.

(9 marks)

(d)   What is the meaning of the *Rule of Thirds*, in terms of interaction design?

(6 marks)

2. (a) *"Attracting senior citizens as part of your user-base was once deemed as being the last Internet frontier. However, this elusive scenario has since become reality as we have witnessed a constant increase in the number of senior citizen users who are more often logging on, signing up, and subscribing."*

      i.   Outline **four** issues that a senior citizen may have with a user interface.

                                                                        (8 marks)

      ii.   Provide **four** methods of improving a user interface for a senior citizen.

                                                                        (12 marks)

(b)   i.   What is the meaning of *Search Engine Optimisation (SEO)*, in terms of web design?

                                                                       (4 marks)

      ii.   When coding a website, provide three ways of improving the SEO of the website.

                                                                       (6 marks)

3. **(a)** What is the meaning of the *Grid Layout Module* in CSS?

(6 marks)

(b) What process must be followed to create a grid layout?

(6 marks)

(c) Using grid layout, write the HTML and CSS code in Figure 1 (where the gutters are 100px and the rows and columns are flexible).
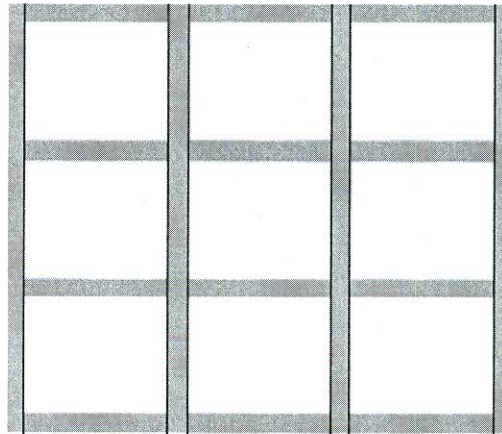
(10 marks)

Figure 1

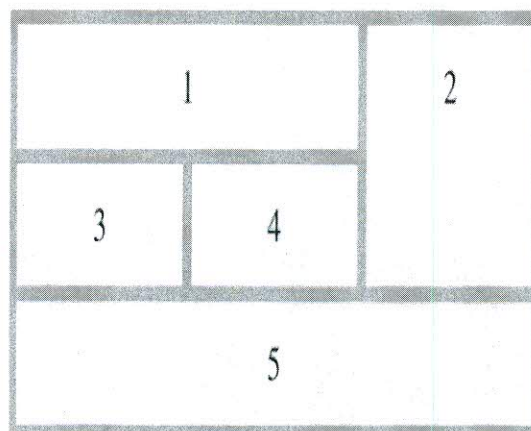**(d)** Rewrite the HTML and CSS code in 3(c) so that it looks like Figure 2.

(8 marks)

Figure 2

4. (a)   i.   Using HTML5, write the code to add a video to your website. The video has a number of formats available – movie.mp4 and movie.ogg. Your code should also cater for the fact that the browser may not support HTML video.

(8 marks)

ii.   What is the meaning of an *escaped character* in HTML? Use examples to support your answer.

(5 marks)

(b)   i.   What units are used to size fonts in CSS? State why and when should each be used.

(8 marks)

ii.   What is the meaning of the term, *mental model*?

(4 marks)

iii.   Discuss how mental models are relevant to interaction design using examples to support your answer.

(5 marks)