EXAMINATION PAPER PROFORMA

This form should be attached to <u>every</u> examination paper submitted to the Examinations Officer

Name of Unit / Element: **USER INTERFACE DESIGN**

Code Number: **IS53008A**

Number of Pages: ...... 6 ....

May the paper be backed?   (Yes)/ No
                                              (Delete as appropriate)

May the paper be reduced?   Yes/ (No)
                                              (Delete as appropriate)

Length of paper: **2 hours 15 minutes**

Number of students expected to sit paper: **46**

Are the students permitted to retain the paper?   **No**

Name of member of staff responsible for paper   **Jennifer George**
(lead examiner):

Any other special requirements (graph paper etc): ....
....
....

I confirm that the above paper and the rubric (containing the required wording as agreed by College Board) has been correctly scrutinised and agreed by the Visiting Examiner. Also that, if applicable, the necessary copyright permission has been granted.

Signed: .... Date: .... 6.4.2011 ....

Name: ..... CRESSWELL ...,.   Department: **Computing**
(Block capitals)

UNIVERSITY OF LONDON

GOLDSMITHS COLLEGE

B. Sc. Examination 2011

COMPUTING AND INFORMATION SYSTEMS

IS53008A (CIS322) User Interface Design

Duration: 2 hours 15 minutes

Date and time: 17th May 2011 at 10.00am

There are five questions in this paper. You should answer no more than three questions.
Full marks will be awarded for complete answers to a total of three questions. Each question carries
20 marks. The marks for each part of a question are indicated at the end of the part in [.] brackets.

There are 60 marks available on this paper.

No calculators should be used.

THIS PAPER MUST NOT BE REMOVED FROM THE EXAMINATION ROOM

Question 1

(a) What is meant by a Hierarchical Task Analysis (HTA)?

[2 marks]

(b)
    (i) Who are the stakeholders for a public transport ticket system?

[2 marks]

    (ii) How would the success of this system affect each one of them?

[6 marks]

(c) Write a scenario for using the ticket machine to purchase a ticket.

[4 marks]

(d) Write or draw an HTA for the scenario mentioned in (c).

[6 marks]

Question 2

(a) Explain two different formative data gathering techniques.

[4 marks]

(b) For each of the tasks below, consider what kinds of data gathering would be appropriate:

    (i) Redesigning an existing website

[3 marks]

    (ii) Designing for a portable device

[3 marks]

(c) Assume that you are involved in developing a banking application for iPad. How would you take a user-centred approach in developing this?

[10 marks]

Question 3

(a) What is a Conceptual Model? Define.

[2 marks]

(b) What types of activities of the user, when interacting with an interface, would you consider when developing a Conceptual Model?

[4 marks]

(c) What steps must be carried out to develop a Conceptual Model for drawing software?

[8 marks]

(d) Metaphor is an important component of interface design. Imagine that you have been asked to design the interface for a piece of software that is used for drawing. Explain with physical and visual examples how a mental model could be created.

[6 marks]

Question 4

(a) Explain why you would involve users in a user centred design process.

[3 marks]

(b) Describe and explain the steps in the Contextual Design Process for building an intranet system to support a Courier business.

[7 marks]

(c) How could Neilson's design principles be applied to such an intranet? Explain at least five principles with examples of illustrations if necessary.

[10 marks]

Question 5

(a)

     (i) What are the input modalities of 'humans as computers'?

                       [2 marks]

     (ii) What is information processing in a human called? Explain.

                       [2 marks]

(b) Name the three different types of memory and explain how each of these affects a user's interaction with interfaces.

                       [9 marks]

(c) Explain the principles, giving examples, of how you would create a *meaningful interface* for an online radio.

                       [7 marks]