

THIS PAPER IS NOT TO BE REMOVED FROM THE EXAMINATION HALLS

UNIVERSITY OF LONDON

CO3348 ZB

BSc Examination

**COMPUTING AND INFORMATION SYSTEMS, CREATIVE COMPUTING
and COMBINED DEGREE SCHEME**

Interaction Design

Friday 11 May 2018: 10.00 – 12.15

Time allowed: 2 hours and 15 minutes

There are **FIVE** questions on this paper. Candidates should answer **THREE** questions. All questions carry equal marks and full marks can be obtained for complete answers to **THREE** questions. The marks for each part of a question are indicated at the end of the part in [.] brackets.

Only your first **THREE** answers, in the order that they appear in your answer book, will be marked.

There are 75 marks available on this paper.

No calculators should be used.

© University of London 2018

Question 1
Design scenario

You work in a design team which is involved in the user-centred development of a screen-based interface for a driverless car.

- a. Describe and justify the prototyping methods you would select for this scenario. [8]
- b. Draw and annotate prototype sketches for the new interface. [8]
- c. Explain the cognitive walkthrough method of evaluation and outline the process of carrying out a cognitive walkthrough of your interface. [9]

Question 2
Evaluation

When implementing products and systems, the user experience may be affected by the core information processing elements of the system such as available memory or speed of the central processor or graphics processor.

- a. Explain why a “Wizard of Oz” evaluation technique would not be suitable for assessing the user experience that might be impacted by the core information processing technology used to implement a system. [7]
- b. Explain why a heuristic evaluation technique would not be suitable for measuring the satisfaction of users depending on the core information processing technology used to implement a system. [7]
- c. Clearly describe potential usability evaluation methods you might use to gain insights into the satisfaction of users when evaluating the impact of different information processing technologies used to implement a system, and explain why they would be suitable. [11]

Question 3
Essay

Discuss what you understand by the term “*participatory design*”. [25]

Question 4
Usability

Product designers for systems such as mobile phones claim that it is essential, for competitive reasons, for them to differentiate their products from those of their competitors even when this makes it harder for people with disabilities to use or adapt the products.

When answering this question you must refer explicitly to the scenario above.

- a. Suggest **TWO** design principles that risk being violated by taking this approach. Explain the risks for each case. [8]
- b. Suggest **TWO** usability principles that risk being violated by taking this approach. Explain the risks for each case. [8]
- c. Describe how this approach might cause particular difficulties for users with disabilities, giving examples that might be relevant for different specific disabilities. [9]

Question 5
Design scenario

Assume you have to design a mobile phone app to remotely control the home heating system. It would provide the same functionality as a wall mounted home heating controller but would allow remote control of the system via the Internet. With clear and specific reference to the scenario for this question:

- a. Develop **TWO** design scenarios, clearly identifying potential users and possible tasks. [10]
- b. Show prototype sketches for this wireless remote system. [8]
- c. Define a test plan explaining fully how you would carry out a usability evaluation of your design. [7]

END OF PAPER