

THIS PAPER IS NOT TO BE REMOVED FROM THE EXAMINATION HALL



**UNIVERSITY
OF LONDON**

CO3348 ZA

BSc EXAMINATION

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

Interaction Design

Tuesday 14 May 2019: 10.00 – 12.15

Time allowed: 2 hours and 15 minutes

DO NOT TURN OVER UNTIL TOLD TO BEGIN

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.

Calculators are not permitted in this examination.

Question 1 Design scenario

You are part of an HCI design team engaged to produce the new interface for a fitness tracking system for keen amateur swimmers. The system should be able to store data and correlate it with general body measurements such as weight, sleep and heart rate.

- a. Describe the role and limitations of both focus groups and ethnographic exploration in determining initial requirements for the system.

[10]

- b. What role might desk research have in determining functionality to be included in the initial design?

[5]

- c. Propose how low fidelity and high fidelity prototypes could be used in the design process.

[10]

Question 2 Evaluation

The local health service has just designed new web pages that are aimed at providing information about local clinics and bulletins about available treatments. You are a usability consultant who is tasked with providing advice about usability and evaluation.

- a. Identify **THREE** stakeholders who would have an interest in the usability of such a system, explaining their relationship and interest in the system.

[6]

- b. Describe **FOUR** qualitative or quantitative usability measurements or metrics you might take in this study.

[4]

- c. Describe the role that eye-gaze tracking would have in evaluating the usability of this service.

[7]

- d. Describe a test plan involving the use of eye-gaze tracking.

[8]

Question 3 Essay

People may be likely to assume that the technology that they use is not sharing personal or private information. If setting privacy and data sharing choices is difficult or complicated, users may not make those choices. Discuss this as an interaction design problem and propose a mechanism that you think might show to users in a simple way that their private information is safe and secure or what is being shared and with whom and for what purpose.

[25]

Question 4 Usability

Product designers for home entertainment systems such as television sets and home cinema system claim that it is essential, for competitive reasons, for them to differentiate their products from those of their competitors even if this means that the systems become more feature rich and complex and difficult for people to use.

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 older people, giving examples that might be relevant for different common attributes of ageing. [9]

Question 5 Design scenario

Assume you have to design an augmented reality interface for a model car racing game to be used on mobile phones for children. With clear and specific reference to the scenario for this question:

- a. Describe a possible danger that might be faced by children using such a game outdoors and suggest design strategies and technologies that could be used to reduce the danger. [9]
- b. Develop **TWO** design scenarios, clearly identifying potential users and possible tasks. [6]
- c. Define a test plan explaining fully how you would carry out a usability evaluation of your design. [10]

END OF PAPER