

UNIVERSITY OF LONDON

GOLDSMITHS COLLEGE

Department of Computing

B. Sc. Examination 2018

IS53034A Interaction Design

Duration: 2 hours 15 minutes

Date and time:

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 25 marks. The marks for each part of a question are indicated at the end of the part in [.] brackets.

There are 75 marks available on this paper.

THIS PAPER MUST NOT BE REMOVED FROM THE EXAMINATION ROOM

---

## Question 1

### *Design scenario*

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

- a. Taking a user-centred design approach describe the prototyping methods you would select for this scenario. [10]
- b. Draw and annotate prototype sketches for the new interface. [15]

## Question 2

### *Design approaches*

Assume that you are part of an HCI design team engaged to produce new interface designs for an existing health-monitoring mobile app.

- a. Describe the prototyping approach you would take and detail the types of prototypes you would employ in a user-centred design process. [10]
  
- b. Illustrate your designs with prototype sketches and storyboards. Use diagrams and illustrations to support your answers. [15]

### Question 3

#### *Usability and User Experience*

- a. You are designing an online educational game for children aged 10 to help them learn maths. What methods would you undertake for gathering user requirements and why? [4]
- b. State five things you might have to consider in terms of the user's physical characteristics. [5]
- c. State two usability and two user experience goals might your game have and suggest how these could be measured. [8]
- d. Imagine you have been asked to go into a school to see a prototype of your game being played by a group of children. You are to undertake direct observation. What problems might you experience with this method? Is it worthwhile? [8]

#### Question 4

##### *Evaluation*

- a. You have been asked to perform usability testing on a system that allows students to see their records and exam results online.
- i. What kind of concerns might the users have about using the online system? [2]
  - ii. Why is it important to record the level of experience of the users? [2]
  - iii. The users are given five minutes to explore the system before starting the tasks. Why is this important? [2]
- b. State FOUR quantitative performance measures that could be used to collect data during the usability testing of the above system. [4]
- c. Describe the environment that would be required in order to carry out this usability testing. [5]
- d. Describe the process that would be required in order to carry out this usability testing, giving examples where appropriate. [10]

## Question 5

*Essay*

Discuss how the Internet of Things has impacted the field of HCI and interaction design. [25]