

UNIVERSITY OF LONDON

GOLDSMITHS COLLEGE

Department of Computing

B. Sc. Examination 2014

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 Identifying needs

Destinations is a UK-based retailer specialising in outdoor clothing for men and women. Their shop is based in London but they also have a mail order business. Their emphasis is on technical outdoor clothes for extreme conditions. They work closely with fabric manufacturers and designers to create high-quality merchandise and have won awards for the innovative designs they produce.

The Destinations' brand is well known and respected, setting them above more general and non-specialist outdoor clothing businesses. In 2012 they won the 'Adventure Clothing Retailer of the Year' award in a leading national travel magazine and their products were used on a recent high-profile Arctic expedition.

Although the outdoor clothing market is growing in the UK, Destinations' products are particularly niche and specialist and so the company have not benefitted greatly from the upturn. Given their reputation for quality and expertise in their area, Destinations have decided to launch a website detailing the technology behind their clothing range and allowing international e-commerce trade. In addition, they would like the website to have a forum where customers interact with each other online and discuss topics relating to travel and outdoor activities, and where staff from the shop can offer advice.

- (a) Create a persona for a Destinations customer. [4]
- (b) The customer in your persona needs to buy a certain piece of equipment from the Destinations web site. Write a scenario for the purchase of this piece of equipment. [4]
- (c) What is card sorting and how might it be used in the design process for the Destinations web site? [3]
- (d) How would you conduct a summative evaluation for these users once the system had been built? What problems might you encounter? [4]
- (e) Sketch a basic layout design for the Destinations home page. Clearly annotate your design to describe and justify your design choices. [10]

Question 2 Requirements and tasks

- (a) You are designing a simple game that will be included with a new mobile phone. Describe TWO methods you could undertake for gathering user requirements and explain why they would be appropriate in this situation. [4]
- (b) Assume you are a member of the software development team for the game.
- i. How could you involve users at an early stage? [3]
 - ii. What problems and attitudes might you encounter? [3]
 - iii. How would you get users practically involved, and when? [3]
- (c) State TWO usability and TWO user experience goals your game might have. Explain why your chosen goals are important and give an example of how each of these could be measured. [12]

Question 3 Design Approaches

- (a) Constraints limit the number of possibilities of what can be done with an object. Norman originally suggested four main types: *Physical, Semantic, Cultural and Logical*. Define each of these and give an example for each that describes that type of constraint. [8]
- (b) Conceptual Design as a first stage in User Centred Design is seen to be the most important part of the design process, and can be a key determinant as to whether, or not, a system will be usable.
- i. Describe what is meant by the terms *conceptual model* and *conceptual design*. [5]
 - ii. Detail THREE kinds of methods, tools and techniques commonly used to produce a typical conceptual design. [12]

Question 4 Evaluation

- (a) You are a developer in a digital design company which is contracted to design and build the DVD interface for the latest big film. Your responsibility is for interface testing and evaluation in terms of the User Experience. This covers both the usability of the interface and also the compatibility of the design in terms of market and user demographics, and the overall branding of the film itself.
- i. List and briefly describe **THREE** different types of quantitative evaluation data that you could collect to test the interface. [6]
 - ii. List and briefly describe **THREE** different types of qualitative evaluation data that you could collect to test the interface [6]
 - iii. Create **TWO** scenarios to be used in testing the usability of this interface. [6]
- (b) Outline the structure of a suitable test plan for evaluating this interface. [7]

Question 5 Essay

- (a) Disruptive technology is a term describing a new technology that unexpectedly displaces an established technology, ultimately overtaking the current technologies in the marketplace.

Using this definition, give examples of disruptive technology in the field of interaction design and discuss the implications of such technological shifts.

[25]