Computer Science Tripos Part IA and IB

2019-2020 Exam Question Cover sheet

Student BGN		
Paper		
Question number		
How did you answer this question?		
	Timed	Open Book
	Untimed	Closed Book
Questions		
List all the questions you have answered for this paper here.		

Computer Science Tripos Honour Code

- 1. We take it as a principle that maintaining the integrity and fairness of examinations should be regarded as a collaboration between students and the Department.
- 2. The students undertake that they will not help others in examinations and will not receive any help from others (students or non-students).
- 3. Students will actively contribute to ensuring that all students adhere to the code.
- 4. Students will keep to the conditions of the assessment and will accurately report those conditions when asked.
- 5. The Department will not make any attempt at remote invigilation of online examinations.

I undertake to respect the Computer Science Tripos honour code

Tick the box to confirm

b)

- Interviews would probably be the most suitable method of data collection, since the product's
 effectiveness is mostly unobservable, and subjective to the user, so to hear their experiences
 would be most important. Similarly focus groups, or questionnaires would work well for the same
 reason, though less effectively.
- Observation might be helpful to an extent, since the actual use of the system is important, and the presence of an observer would not impact the realism of the situation.
- Study of documentation relevant to "sense transfer" of some kind would likely be helpful in the design of the system.
- A variant on card-sorting could be used to test which sounds are perceived to be similar to each other, maybe in comparison to similar images, to see how well they align with their counterparts.
- c) Gestalt theory describes how the mind organizes visual data. The six principles of Gestalt theory relevant to interaction design are:
 - Figure-Ground relationship Images are partitioned into foreground and background. This is used in the example web page by darkening the background image behind the white headline, to improve legibility.
 - Proximity Items in close proximity are perceived as a group. This is used in the web page to associate the administrative information at the bottom of the page.
 - Similarity Items are grouped by their similarity in appearance, i.e. colour, shape, etc. An example of this from the web page is the "4 steps" section, where the items all share a clear design, and colour scheme.
 - Symmetry Items in a symmetric relationship are perceived as related. An example of this from the web page is the 3 symmetrically arranged paragraphs in the second section.
 - Continuity Items are perceived as related if they are aligned, or continue a pattern. This is exemplified in the "Address" section at the bottom of the page, where the address lines are aligned to be left-justified.
 - Closure The perception of items as whole, even when the figure is not drawn in its entirety. This is used in some of the diagrams in the webpage, which contain unclosed outlines of people or lightbulbs.