



UNIVERSITY *of* LIMERICK
OLLSCOIL LUIMNIGH

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| Academic Year | 2005/2006 | Semester: | Spring |
| Module Title | Human-Computer Interaction | Module Code | CS4826 |
| Duration of exam | 2 ½ hours | % of total marks | 60 |
| Lecturer | Michael Cooke | Marked out of | 100 |

Instructions to Candidates.

- Answer any four questions.
- All questions carry equal marks.

Q1 Consider the three design scenarios below. For each one suggest the most appropriate method or methods for gathering requirements giving reasons for your selection.

- a) The management of an airport has asked you to develop interactive installations to be placed in a number of locations such as the departures lounge, arrivals lobby and the baggage reclaim area. The management has stated that they want to improve passengers' experience of the airport by providing interactive artefacts that offer both useful services for passengers as well as providing entertainment for people waiting in these locations.
- b) The accounts department of the University are considering replacing their existing payroll software. There have been reports of some usability problems with the existing system but management also want to know what new functions and features might usefully support the work of accounts staff.
- c) A large organisation based in Limerick has invested in a new information system to facilitate coordination between it's various departments and members. It has become apparent that the system is not being used as intended and in some cases not at all. Management do not understand the reasons why but wish to make modifications to the system to increase its level of use. You have performed a usability evaluation of the interface and found no particular problems and no significant bugs have been reported.

(25 marks)

- Q2 Do parts a) and b)
- a) Describe Norman's usability design principles giving an example for each one relating to user interface design. (15 marks)
 - b) Critically discuss the relevance of such design principles in the HCI design process. (10 marks)
- Q3 Do part a) and b)
- a) What is meant by the term "Participatory Design? In your answer include a brief discussion of the origins of the origins of this approach. (10 marks)
 - b) Discuss the advantages and potential problems associated with this approach to the design of interactive systems. (15 marks)
- Q4 Do parts a) and b)
- a) Benyon, Turner & Turner (2005) offer the IMPACT framework for thinking about the evaluation of interactive systems. Discuss the main points of this framework. (15 marks)
 - b) What in your view are the relative roles of expert reviewers and end users in the evaluation of interactive systems? (10 marks)
- Q5 CSCW is often distinguished from traditional HCI. Discuss the main points of difference between these two fields in terms of the following three categories:
- a) Unit of analysis
 - b) Theories
 - c) Methods
- (25 marks)
- Q6 Discuss, with examples, the factors that need to be considered when thinking about the appropriate use of sound in computer interfaces. In your answer give your views on how sound might be more usefully employed by systems designers. (25 marks)