UNIVERSITY *of* LIMERICK

OLLSCOIL LUIMNIGH

Academic Year	2007/2008	**Semester:**	Autumn
Module Title	Human-Computer Interaction	**Module Code**	CS4826
Duration of exam	2 hours	**% of total marks**	50
Lecturer	Michael Cooke	**Marked out of**	100

Instructions to Candidates.

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

Q1 Consider the following statements. For each one state whether you agree with it or not and write a short paragraph explaining your answer.

1. Gibson's "Direct Perception" theory is an example of a bottom-up theory of perception emphasising the importance of information picked up from the environment. (5 marks)

2. Our knowledge of the limitations of working memory is more important for the design of auditory menus than for drop-down menus (5 marks)

3. "Flashbulb" memories are very vivid and are therefore more accurate than other episodic memories. (5 marks)

4. Having different modes of operation controlled by the same user interface is an effective way of reducing human error (5 marks)

5. "Mental set" is one of the Gestalt laws of perceptual organisation which governs how we perceive objects that share a common fate as being part of the same whole. (5 marks)

Q2 Do parts a) & b)

a) When we talk about primary, secondary and tertiary users, to whom are we referring? Illustrate your answer with reference to the primary, secondary and tertiary users of a supermarket self-service checkout system. (10 marks)

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b) Gould et al. (1987) discussed four principles for the practice of user-centred design. Explain these four principles and for each give an example of how it was practically implemented in the design of the 1984 Olympic messaging system. (15 marks)

Q3 Do parts a) & b)

Baker et al. (2002) presented a set of heuristics for the evaluation of groupware systems.

a) Outline and explain these heuristics. (16 marks)

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b) Discuss the limitations of these heuristics for evaluating CSCW systems. (9 marks)

Q4 Prototyping is an important stage of the design process. Discuss its relevance and purpose within the user-centred design process, and provide an example of a prototyping method for each of the three levels of fidelity discussed in class. (25 marks)

Q5 The evaluation of interactive technologies in terms of usability and user experience should ideally involve the analysis of both quantitative and qualitative data. Critically discuss the relative roles of quantitative and qualitative data in carrying out a user-centred evaluation of an interactive system. (25 marks)

Q6 The designers of interactive system nowadays have to consider more than just function, ergonomics and usability. Designing for *pleasure* and *user-experience* is becoming increasingly important. In class we discussed Tiger's (1992) four dimensions of pleasure. Discuss these four dimensions giving examples of how they can be applied to analyse the user-experience of an interactive technology of your choice (e.g., mp3 player; interactive website; mobile phone; game console). (25 marks)