Ollscoil na hÉireann, Gaillimh   GX_____

National University of Ireland, Galway

Semester I Examinations 2007/2008

Exam Code(s)	3IF121; 3BA
	1SD1
Exam(s)	B.Sc. in Information Technology
	B.A.
	Higher Diploma in Software Design and Development
Module Code(s)	CT318
	CT865
Module(s)	Human Computer Interaction
Paper No.	1
Repeat Paper	Special Paper
External Examiner(s)	Professor John A. Keane
	Professor Sally McClean
Internal Examiner(s)	Prof. G. Lyons
	Ms. K. Young

Instructions: Answer any **three** questions.
All questions will be marked equally.

Duration	2hrs
No. of Answer Books	1

Requirements:
Handout
MCQ
Statistical Tables
Graph Paper
Log Graph Paper
Other Material

No. of Pages	3
Department(s)	Information Technology

1. You have been asked to design an interactive web-based system for a clothing company who wish to begin selling their sports clothing online. The system must support the user in browsing through their products by different categories (e.g. Men / Women / Children; type of sport; price category etc.), down through subcategories to the product level detail where attributes such as size, colour, and available stock/inventory levels are specified.

The site must also enable customers to search for a particular product, put it in their shopping cart and fill in their address details for shipment as well as paying for the product. Your client has stressed the importance of an effective, easy to use, and well-organised interface for their users, given the level of competition in the market.

The company has indicated that they want an initial design submission from you to include the following:

(a) A PACT analysis for this application.

[5]

(b) A paper prototype of three of the interface screens, representing the system's functional organisation and overall "look and feel". Clearly outline your rationale for each of the design choices you make.

[9]

(c) An evaluation plan, clearly outlining what activities, when, how and by whom the evaluation activities will be undertaken, for the system which will support comprehensive testing of your design.

[6]

2. Write a detailed description of **three** of the following subjects, illustrating your answer with practical examples where relevant:

Internationalisation in UID
Interaction Design Principles and Guidelines
Anthropomorphism in UID
UID for Mobile Devices
Cooperative Evaluation

[20]

3. (a) Good design requires good designers, not expensive tools. Comment on the validity of this statement and what it means for interaction design education. Support your answer with relevant examples.

[8]

(b) Write a one-page memo to your colleagues in your software design company, proposing the adoption of more rigorous task analysis during design to improve the success of the interactive systems designed by your company.

[6]

(c) Which interaction style would you apply to the design of each of the
   following and why?
   - An online music download site.
   - An interactive ticketing machine for public transport.
- A hospital facilities management system: facilities to include all non-medical equipment and supplies.

[6]

4. (a) Research in human computer interaction has identified two distinct approaches to this cooperative interaction: the human centred and machine centred view. Norman characterises the differences in these approaches as those between analogue and digital agents. Do you agree with this statement? Why? What does this mean for effective interaction design? Use examples to illustrate your response.

[10]

(b) What makes something easy to use? What are the properties of an interactive system that make it easy to use? Modify your list to make it specific to an ageing population.

[5]

(c) Using appropriate examples, explain Norman's *gulf of execution* and *gulf of evaluation* as they relate to successful interaction design.

[5]