THE UNIVERSITY
of LIVERPOOL

SUMMER 2002 EXAMINATIONS

Bachelor of Science : Year 2

SOFTWARE DEVELOPMENT IN PRACTICE

TIME ALLOWED : Two Hours

INSTRUCTIONS TO CANDIDATES

This paper has 4 Sections
Attempt *all* questions in *all* Sections

If you attempt to answer more than the required number of questions (in any section), the marks awarded for the excess questions will be discarded (starting with your lowest mark).

Section A
Each question in this section carries **1 mark.**

a) What is CERN and why is it significant in the history of WWW?

b) What was MEMEX?

c) What is the UK equivalent of ANSI?

d) Distinguish clearly between the Internet and WWW.

e) What is the basic unit for information exchange on the WWW?

f) What is ISO?

g) Which UK Act of Parliament makes it illegal to loan software in order that a copy be made of it?

h) What is the BCS?

i) Name one piece of UK legislation explicitly sponsored by the BCS.

j) What is the usual length of time a copyright can last?

(10 marks)

Section B
Each question in this section is worth **3 marks.**

a) Explain, with the use of an example, the difference between **ABSOLUTIST** and **RELATIVIST** world views when it comes to professional ethics.

b) Explain the difference between the terms **relative** and **absolute** when referring to path names for web pages. Which of the above is recommended for use more often and why?

c) State three types of personal sensitive data as defined within the Data Protection Act of 1998.

d) State and explain briefly, three of Mason's ethical issues in I.T.

e) State four Commandments of Computer Ethics as outlined by the Computer Ethics Institute.

(15 marks)

Section C

There are 3 questions is this section, carrying 25 marks each

Question 1

a) Explain the following HCI (Human Computer Interaction) guidelines concerning Software Interface Design:

- Consistency
- Flexibility and Control
- Error prevention and correction

(9 marks)

b) Provide examples of the guidelines for continuous and informative **feedback** and distinguish between three types of feedback.

(6 marks)

c) Describe some ways in which colour might be used to enhance a user interface.

(10 marks)

Question 2

a) Explain the difference between **Registered** and **Unregistered** Design Rights.

(5 marks)

b) Explain what '**right of false attribution**' means in relation to copyright works.

(3 marks)

c) What, in the context of moral rights, is meant by a '**right of paternity**'?

(2 marks)

d) Name three types of offences that come under the Computer Misuse Act 1990. Give an example of computer misuse.

(5 marks)

e) Explain what a **patent** is and the meaning of the term '**prior disclosure**'.

(5 marks)

f) Name four types of intellectual property rights.   (5 marks)

Question 3

a) In the context of user-interface design, what is meant by **syntactic knowledge** and **semantic knowledge**? Using these concepts, characterise the following categories of users.

- expert users
- knowledgeable, infrequent users
- novice users

(5 marks)

b) What is meant by an **affordance**, and how is this notion relevant to user-interface design?

(3 marks)

c) Explain what is meant by **Direct Manipulation** and give an example of how it can be used in user-interface design.

(2 marks)

d) Good **error management** is critical to ensuring smooth interaction between humans and machines,
  - describe the different categories of error and the principles of error management.

(8 marks)
  - Give three examples of guidelines for error management.

(7 marks)