



THE UNIVERSITY
of LIVERPOOL

SEPTEMBER 2002 EXAMINATIONS

Bachelor of Arts : Year 1
Bachelor of Science : Year 1

SOFTWARE DEVELOPMENT IN CONTEXT

TIME ALLOWED : Two Hours

INSTRUCTIONS TO CANDIDATES

Attempt *ALL* questions in *ALL* the 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).



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Section A

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

A1. What was MEMEX ?

A2. What is ISO ?

A3. What does the acronym "URL" stand for ?

A4. To which organisation would software theft be reported ?

A5. Which UK Act of Parliament makes it illegal to loan software in order that a copy be made of it ?

A6. What is the BCS ?

A7. What is the usual length of time that a copyright can last ?

A8. To which UK organisation should software theft be reported ?

A9. Distinguish clearly between the Internet and WWW.

A10. What is CERN and why is it significant in the history of the WWW?

(10 marks)



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Section B

Each question in this section is worth **3 marks**

B1. Explain the difference between **Absolutist** and **Relativist** world views when it comes to professional ethics.

B2. Give three ways in which a Software Audit can be of value to a large organisation.

B3. Give three examples of what could be classed as 'prior disclosures' within the context of patent law.

B4. Name three types of personal sensitive data as defined with the Data Protection Act of 1998.

B5. State four Commandments of Computer Ethics as outlined by the Computer Ethics Institute.

(15 marks)

Section C

There are **3** questions in this section, carrying **25 marks** each

Question C1

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 i.e. **Lexical**, **Syntactic** and **Semantic** feedback.

(6 marks)

c) There are three types of list in HTML. Name and briefly describe them with the use of an example.

(10 marks)



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Question C2

- a) Explain the difference between **Registered** and **Unregistered** Design Rights. (5 marks)
- b) What, in the context of moral rights is meant by a '**right of paternity**'? (5 marks)
- c) State and explain briefly, three of Mason's ethical issues in I.T. (5 marks)
- d) Name four types of **Intellectual Property Rights**. (5 marks)
- e) Distinguish between the terms **Trademark**, **Copyright** and **Patent**. (5 marks)

Question C3

- a) Name two **software lifecycle** phases and describe briefly what they consist of **and** what difficulties may occur during them. (15 marks)
- b) Explain the term **Encapsulation** with regard to Object Oriented Programming. (5 marks)
- c) Outline briefly some of the benefits of **Object-Oriented Design**. (5 marks)