THE BRITISH COMPUTER SOCIETY

THE BCS PROFESSIONAL EXAMINATION
Diploma

PROFESSIONAL ISSUES IN INFORMATION SYSTEMS PRACTICE

20th April 2004, 10.00 a.m.-12.00 p.m.
Answer FOUR questions out of SIX. All questions carry equal marks.
Time: TWO hours.

*The marks given in brackets are **indicative** of the weight given to each part of the question.*

Important: Note that Question 6 consists of two alternatives, one intended for candidates who have studied the old syllabus and one intended for candidates who have studied the new syllabus.

---

1. *a)* Why should a manager delegate authority?   **(5 marks)**

   b) Have advances in information systems over the past twenty years helped increase or decrease delegation of authority to employees?   **(13 marks)**

   c) Why does an organisation require a structure?   **(7 marks)**

2. *a)* Briefly outline the protection offered to organisations conducting electronic commerce by the UK Computer Misuse Act 1990.   **(6 marks)**

   b) Company X creates an animated character for its website. Explain why and how the company might wish to protect the animated character using copyright and/or trademark legislation.   **(12 marks)**

   c) Discuss how the use of cookies on an organisation's website might potentially infringe the UK Data Protection Act 1998.   **(7 marks)**

3. A new company has been established to develop a technological invention exploiting the next generation of mobile phones.

   a) The estimated initial cost of developing the technology is £3 million. The net income is initially anticipated to be £400,000 per annum rising by £100,000 per year.

   Ignoring the time value of money develop a simple cash flow projection and deduce the payback period.
                                                      (8 marks)

   b) To support this development it is necessary to install a local area network in the company. The network costs £30,000 and is expected to be replaced after three years. Explain how this purchase will affect the company accounts over that period.   **(7 marks)**

   c) Explain how you would protect this invention from copying or imitation, stating any assumptions you make.   **(10 marks)**

4. *a)* What are the characteristics shared by most professions? **(9 marks)**

b) Describe the BCS activities that support its claim to be a professional institution. **(7 marks)**

c) Discuss whether those working in the Information Systems field in general (i.e. not just members of the BCS) can be considered to constitute a profession. **(9 marks)**

5. *a)* Briefly summarise the key content of the BCS Code of Conduct. You are not expected to detail all the clauses. **(8 marks)**

b) Explain what is meant by ethics and how ethics is relevant to software professionals. **(8 marks)**

c) Discuss how the key elements of the BCS Code of Conduct, which you described in part *a)* of this question, can assist you as a software engineer when faced with a difficult situation, indicating briefly the problems that can arise in relying entirely on such a code to guide your actions. **(9 marks)**

6. **Either (old syllabus)**

a) Explain what work breakdown structures are and how they relate to Gantt and Pert charts. **(13 marks)**

b) Discuss the potential benefits of a systems development methodology of your choice with regard to managing IT projects. Relate your answer to the project management techniques of work breakdown structures, Gantt and Pert charts. **(12 marks)**

or (new syllabus)

6. *a)* What is human resource planning and what purposes does it serve? **(15 marks)**

b) Describe briefly the types of discrimination currently covered by anti-discrimination legislation in the UK.
(10 marks)