

THE BRITISH COMPUTER SOCIETY

THE BCS PROFESSIONAL EXAMINATIONS

Diploma

PROFESSIONAL ISSUES IN INFORMATION SYSTEMS PRACTICE

18th October 2005, 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.*

1.
 - a) Explain the historical background to the setting up of the UK Engineering Council. **(5 marks)**
 - b) Describe briefly the six principal duties of the UK Engineering Council. **(12 marks)**
 - c) A consultant is advising a local business on the introduction of a new software system to maintain its accounts. The consultant considers that a package called Computerised Business Accounts (CBA) best suits the client's needs and therefore recommends it. However, the consultant's best friend is the marketing manager for the company that produces CBA. Discuss how the BCS Code of Conduct relates to this situation. **(8 marks)**

2.
 - a) You are the group IT director for a large multinational finance company headquartered in London, with ten major offices located in ten major cities throughout the world. The CEO has decided to include you and all other group directors in a management by objectives (MBO) process. Suggest four objectives that you might lay down for yourself, explaining why you think they are important. **(12 marks)**
 - b) Explain briefly why the Regulation of Investigatory Powers Act 2000 was felt to be necessary, and outline its provisions. **(13 marks)**

3. Scramble is a recently established computer games company. It has devised a company logo that consists of yellow cloud, on a pale blue circular background, with the word 'SCRAMBLE' written around the circumference. Scramble is just about to release its first game, an adventure game called Aeneid, based on the famous Latin epic poem; this game includes a novel piece of hardware that attaches to a USB port and simulates the sensation of being at sea in an ancient boat.
 - a) Discuss how Scramble could protect its company logo from misuse by other companies or individuals. **(10 marks)**
 - b) Discuss the mechanisms by which Scramble might protect the ideas and the implementation of the Aeneid game, and the extent to which this protection would be effective. **(15 marks)**

Turn over]

4. a) Employees of Mango Software plc work a five day week. They are entitled to 20 days holiday a year in addition to the 10 annual public holidays. On average, each employee loses ten working days per year through sickness. Mango aims to allow each employee 15 days per year for training. Experience shows that employees spend an average of five days a year unproductively, as a result of scheduling problems. In accordance with government regulations, employers must pay social security contributions equal to 10% of salary.
- Calculate the average direct cost of one day's work from an employee earning £20,000 per year. State explicitly any assumptions you make. **(12 marks)**
- b) Mango Software's financial year runs from 1 August to 31 July. On 1 August 2004 it purchased a substantial database server, costing £100,000. The server is expected to have a useful life of five years. The company uses straight line depreciation.
- Calculate and explain the effect that the purchase will have on the balance sheets, the profit and loss accounts, and the cash flow statements for the following five years. **(13 marks)**
5. a) Explain briefly what is meant by a product line structure and outline its advantages, illustrating your answer with TWO examples from the IT industry. **(10 marks)**
- b) Describe THREE possible advantages of job specialisation and TWO possible disadvantages. **(15 marks)**
6. a) Outline the main provisions of the Computer Misuse Act 1990 and explain why it was felt to be necessary. **(10 marks)**
- b) Discuss how far internet service providers (ISPs) are responsible under UK law if their services are used to disseminate material that could be the subject of civil or criminal action, such as obscene or defamatory material. **(15 marks)**