

THE BRITISH COMPUTER SOCIETY

THE BCS PROFESSIONAL EXAMINATIONS
BCS Level 5 Diploma in IT

PROFESSIONAL ISSUES IN INFORMATION SYSTEMS PRACTICE

22nd April 2008, 2.30 p.m.-4.30 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.*

Calculators are NOT allowed in this examination.

1. Write short notes on EACH of the following:

- a) balance sheet
- b) depreciation
- c) business plan
- d) gearing
- e) cash flow statement.

(5 × 5 marks)

2.

a) Explain the term *constructive dismissal* and provide ONE example to demonstrate your understanding.

(5 marks)

b) To whom does the Public Interest Disclosure Act 1998 (PIDA) apply and whom is it designed to protect?

(8 marks)

c) Three techniques are used in the process of *job design*, namely;

- job rotation
- job enlargement
- job enrichment.

Explain EACH of the THREE techniques, illustrating how they might apply to the following scenario:-

Mark, Alan and Paul work for a software development company. Mark is the maintenance programmer for the budgeting module of the financial suite. Alan carries out both unit and integration testing on the enhancements written by Mark. Paul develops user test data and carries out all user testing on the enhancements written by Mark, prior to releasing the software to the client.

(12 marks)

Turn over]

3. Reavera Software Plc produces a range of software packages for the tourism and hospitality industry. The company was founded in 1988 and its headquarters are in London. Over the past twenty years the company has grown from an organisation employing ten people to its current complement of one hundred and twenty. Today, the structure of the company is much the same as it was twenty years ago when it operated in the UK only.

Today, Reavera Software Plc has its European headquarters in London and offices in Paris and Geneva, all of which serve the European market. It has its Asian headquarters in Bangkok and its Australian headquarters in Sydney.

The range of software products offered by the company is the same for all its customers. All development is carried out in London, with all other offices operating as sales centres only.

Over the past five years it has become apparent that all the products fail to meet the needs of some customer and, in particular, local requirements are not catered for when software is developed. In addition, customers have expressed dissatisfaction that all support comes from the London headquarters.

The directors of Reavera Software Plc recognise that a fundamental reorganisation of the company is necessary.

- a) Suggest a suitable structure for the company, illustrating your answer with an organisation chart.

(13 marks)

- b) Explain the advantages and disadvantages of your suggested structure.

(12 marks)

4.

- a) In the context of UK Data Protection legislation, explain what is meant by *sensitive* personal data. How do the rules regarding the processing of such data differ from those relating to the processing of other personal data?

(8 marks)

- b) What rights does the UK Data Protection Act 1998 give to individual citizens?

(17 marks)

5.

- a) The Code of Conduct of the British Computer Society is divided into four main sections. Explain what these sections are and describe briefly the issues addressed by each section.

(16 marks)

- b) Describe how the scope of Internet domain names differs from that of trade marks and explain how this can lead to conflicts.

(9 marks)

6. Truck Hire supply lorries and vans for hire, primarily to other businesses. They are reviewing their web site operations with a view to being able to allow customers to book vehicles directly online. Two alternatives under consideration are to purchase and manage their own server, or to use an external web hosting organisation. The internal server would also cost staff time and licences. The hosting company's charges are based on storage and usage volumes that are predicted to rise and Truck Hire would have some initial expenditure on telecommunications equipment.

Cost	Internal Server (£)	External Host (£)
Immediate capital outlay, i.e. Year 0	4,000	500
Year 1	2,200	2,200
Year 2	2,400	3,000
Year 3	2,600	3,900
Year 4	3,000	4,500

The company has estimated that the cost of capital is 10 per cent, which equates to the following approximate discount rates.

Year 1	1.1
Year 2	1.2
Year 3	1.3
Year 4	1.5

For each option:

- a) using an appropriate cash flow chart, calculate the net present value of the total life cost over four years; **(14 marks)**
- b) identify the preferred option based on cost alone; **(2 marks)**
- c) briefly discuss the advantages of using discounted cash flow as a way of assessing the value of the investment; **(3 marks)**
- d) state two factors that Truck Hire should take into account in deciding whether to outsource and explain how these factors might affect the decision. **(6 marks)**