

# THE BRITISH COMPUTER SOCIETY

## THE BCS PROFESSIONAL EXAMINATIONS BCS Level 5 Diploma in IT

### PROFESSIONAL ISSUES IN INFORMATION SYSTEMS PRACTICE

16<sup>th</sup> October 2007, 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.*

Calculators are <b>NOT</b> allowed in this examination.
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1. A new company has been established to develop a technological innovation exploiting the next generation of Radio Frequency Identification (RFID) chips for automated distribution of goods in retail companies.
- a) The estimated initial cost of developing the technology is £1 million. The net income is initially anticipated to be £200,000 per annum rising by £100,000 per year. Develop a simple cash flow projection and calculate the payback period, ignoring the time value of money.

**(5 marks)**

Without doing any further calculations, explain how a *discounted* cash flow projection would differ from your simple projection and why it is generally preferred.

**(4 marks)**

- b) After five years the balance sheet shows:

	(£000's)	
Fixed Assets		250
Good Will		200
Current Assets		
Stock	50	
Debtors	100	
Cash	25	
		175
Current Liabilities		
Trade Creditors	40	
Tax	35	
		75
Net Current Assets		300
Total Assets less Current Liabilities		750
Capital and Reserves		
Share Capital – £1 ordinary shares	400	
Loan stock	150	
Profit and Loss Account	200	
		750

With reference to this example, explain the following terms and how they are calculated:

- i) good will
- ii) debtors
- iii) gearing
- iv) working capital.

**(16 marks)**

**Turn over]**

2. a) Job evaluation is often used for comparing the relative worth of jobs and then allocating jobs to specific grades. Describe TWO methods used to evaluate jobs.

**(15 marks)**

- b) To be registered, a company must have a constitution. The constitution consists of TWO documents, namely: *memorandum of association* and *articles of association*. Outline the content of EACH document.

**(10 marks)**

3. a) DigiPro Plc, a major UK facilities management company with more than 10,000 employees, carried out an employee survey five years ago to help find out why employees were leaving at twice the rate of the industry average. Subsequent exit interviews suggested that poor pay rates were the cause of the high employee turnover. The company increased its pay rates, but the high turnover rate failed to decline.

The company undertook a deeper investigation of employee turnover patterns over the last twelve months and found several factors were involved. The investigation also found that pay levels had the weakest impact on employee turnover.

Based on the above scenario that demonstrates the fallibility of exit interviews, describe THREE factors you think would have more influence on employee turnover and explain why.

**(15 marks)**

- b) Explain the terms *reservation of title* and *reservation of function* as applied to the professions, giving examples of professions in the UK to which each applies.

**(6 marks)**

To what extent are these terms applicable to the engineering profession in the UK and in the USA.

**(4 marks)**

4. a) Explain the purposes for which, under the UK Regulation of Investigatory Powers Act 2000 and the associated regulations, organisations that provide computer and telephone services can monitor and record communications without the consent of the users of the service.

**(16 marks)**

- b) Explain the terms *mere conduit*, *caching* and *hosting* as they apply to the possible roles of internet service providers.

**(9 marks)**

5. a) Outline the principles of the UK Data Protection Act 1998.

**(12 marks)**

- b) Assume that you are an IT security manager in a large UK based bank. You are investigating the case of an clerk within the bank who has installed a computer program on the company's accounts system which, whenever a customer opens a new account, sends the clerk an e-mail with the account details and then destroys the evidence that the e-mail has been sent. The clerk then sells these account details to a credit card company. Discuss the criminal offences that might be used to prosecute the clerk under the UK Computer Misuse Act 1990, and what penalties you might expect the clerk to receive in a UK court.

**(13 marks)**

6. a) Explain the difference between copyright and trademarks.

**(8 marks)**

- b) Discuss how a web-based UK company selling mobile telephone ring tones might potentially use copyright legislation to protect its business activities.

**(17 marks)**