

**BCS THE CHARTERED INSTITUTE FOR IT**

**BCS HIGHER EDUCATION QUALIFICATIONS**  
**BCS Level 5 Diploma in IT**

**PROFESSIONAL ISSUES IN INFORMATION SYSTEMS PRACTICE**

Thursday 29<sup>th</sup> March 2012 – Afternoon

Answer FOUR questions out of SIX. All questions carry equal marks.

Time: TWO hours

**Answer any Section A questions you attempt in Answer Book A**

**Answer any Section B questions you attempt in Answer Book B**

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.
---

**Section A**

Answer Section A questions in Answer Book A

- A1. a) Briefly explain the purpose of a **code of conduct**. **(4 marks)**
- b) Outline the benefits of adopting codes of conduct in the field of computing and information systems. **(6 marks)**
- c) The BCS Code of Conduct is divided into four sections; one of these sections is 'Duty to the Relevant Authority'. Members of the BCS are expected to behave professionally towards the relevant authority. Give THREE examples to explain what this means. **(15 marks)**
- A2. a) Using suitable examples, explain what is meant by the terms
- i) structure by **market sector**
  - ii) structure by **product line**
- when used to describe organisational structures. **(8 marks)**
- b) Explain what is meant by the term **outsourcing**. **(5 marks)**
- c) What reasons might an organisation have for outsourcing its IT provision? **(6 marks)**
- d) What protection does European law offer to employees who are transferred to a different employer as a result of outsourcing? **(6 marks)**

**Turn over]**

- A3. a) List the SIX main categories of work in the SFIPlus framework. **(6 marks)**
- b) Describe FOUR ways SFIPlus can be employed to aid professional development. **(8 marks)**
- c) Job evaluation schemes can be either analytical or non-analytical. Through the use of examples, explain both types. **(11 marks)**

### **Section B**

Answer Section B questions in Answer Book B

- B4. a) The following are legal mechanisms for protecting a company's intellectual property (IP). Describe the way in which each of these mechanisms might be used to protect the IP of a software company.
- i) copyright
  - ii) trade marks
  - iii) patents.
- (3 x 6 marks)**
- b) Cloud computing is the use of internet-based infrastructure, platforms and software to provide on-demand services. Organisations such as Google, Microsoft and Amazon sell infrastructure capacity (e.g. storage, communications and processing) and software services (e.g. mail, office products). Cloud computing uses such resources across the world, as appropriate, and the precise location is not necessarily specified.
- The University of Northern England (UNE) has decided it would like to move its key student information systems and mail servers to a cloud-based service. Discuss the **data protection implications** for UNE in using cloud-based services.
- (7 marks)**
- B5. a) You are an IT contractor who has been hired by a small company to develop an e-commerce system to handle selling goods to consumers. Explain to the manager of the company what will need to be done to ensure that the company complies with the UK Data Protection Act 1998. **(15 marks)**
- b) For the company in part (a) explain to the manager of the company what would need to be done to ensure that the company complied with the UK Consumer Protection (Distance Selling) Regulations. **(10 marks)**

B6. A new company has been established to develop a technological innovation that uses existing fibre cables to sense pressure waves in the ground or in the atmosphere and thus to detect, for example, leaks in pipelines or the presence of intruders.

- a) The estimated initial cost of developing the technology is £900,000. 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) fixed assets
- ii) debtors
- iii) gearing
- iv) working capital.

**(16 marks)**