

**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> September 2011 – Morning.  
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.
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**Section A**

Answer Section A questions in Answer Book A

- A1. 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)
- A2. a) One effect the introduction of an information system has on an organisation is the probable requirement for change to job structure and function. Such change is often resisted by employees and in many cases the resistance is based on fear rather than knowledge of the truth. For such a scenario, explain THREE methods an employer can use to deal with employee resistance to change.  
(12 marks)
- b) Explain what is meant by a functional organisational structure.  
(5 marks)
- c) Briefly describe FOUR types of discrimination that are prohibited by anti-discrimination legislation in the UK.  
(8 marks)

**Turn over]**

- A3. a) Why is it important for managers to delegate?  
(5 marks)
- b) You have been asked to take part in the process of selecting new employees for your company. How will the BCS Code of Conduct affect the way that you carry out this task?  
(9 marks)
- c) Distinguish between unfair dismissal, constructive dismissal and wrongful dismissal.  
(11 marks)

### **Section B**

Answer Section B questions in Answer Book B

- B4. a) Employees of Aspire Software plc work a five day week over a 52 week year. They are entitled to 20 days company holiday and a further 10 days public holiday. Assume that on average each employee has 10 days a year that are unproductive, for example for training and sickness. In accordance with government regulations, employers must pay social security and pension contributions equal to 10% of salary. Calculate the average direct cost of one day's work for a project manager earning £50,000 per year and a graduate software developer earning £20,000. State explicitly any assumptions you make.  
(9 marks)
- b) Explain, using examples, the term overheads in relation to labour costs.  
(6 marks)
- c) Aspire has 20 employees (project managers and software developers) directly developing the products. Making reasonable assumptions, calculate the overhead portion of the labour cost and therefore the total day cost of each employee in part (a) above in each of the following cases:
- i) an equal portion of the overhead is allocated to each of the employees directly developing products;
  - ii) the overhead is allocated in proportion to the direct costs of the product-based employees.
- You may assume that the company pays out the following sums in overhead costs each year: management and administrative salaries £120,000; cost of premises £40,000; company vehicles £20,000; communications £5,000; insurance and other professional fees £10,000; sales and marketing £15,000; depreciation and maintenance of the network and server £10,000.  
(10 marks)

- B5. a) You are a computer forensic analyst investigating the dissemination of illegal pirate music via a peer-to-peer network. Your investigation leads you to an individual who has downloaded hundreds of illegal pirate copies of music, and who has also made legally purchased music available to others via the peer-to-peer network.

Explain how the UK Copyright, Designs and Patents Act 1998 would apply to this scenario.

**(12 marks)**

- b) As part of the investigation described in part (a) you discover that the individual who is disseminating illegal copies of music has also been spreading a computer virus through the peer to peer network, and having obtained the Internet Protocol (IP) addresses of other users of the peer to peer network, has attempted to gain access to their computers in order to obtain credit card data.

Explain how the UK Computer Misuse Act 1990 would apply to this scenario.

**(13 marks)**

- B6. a) Explain the law relating to the sending of 'spam' to individuals within the European Union.

**(8 marks)**

How does this law differ from the corresponding law in the USA?

**(4 marks)**

- b) Outline the obligations placed upon Internet Service Providers (ISPs) by the UK Regulation of Investigatory Powers Act 2000, with regard to police investigations.

**(13 marks)**