

**BCS THE CHARTERED INSTITUTE FOR IT**  
**BCS Higher Education Qualifications**  
**BCS Level 5 Diploma in IT**

**March 2014**

**EXAMINERS' REPORT**

**Professional Issues in Information Systems Practice**

**General comments on candidates' performance**

The pass rate this sitting was better than has ever been achieved before on this module. This high overall pass rate reflects two phenomena:

- there was a sharp drop in the proportion of candidates getting less than 20%. This suggests that candidates who are not properly prepared for the exam are deciding not to waste time or money taking it. This may be due to pressure from course providers or to candidates' own initiative;
- one UK centre, which has in the past had a large number of candidates and a very low pass rate, had a much reduced number of candidates and a much higher pass rate.

Apart from plain lack of knowledge, candidates fail this module because:

- they have such poor skills in written English that they cannot express their knowledge; *or*
- they lack the intellectual abilities to understand the material or to apply to concrete scenarios.

The marks allocated to each part of a question are indicated on the examination paper to give candidates some guidance on how much effort they should devote to the different parts of the question. Many candidates ignore this guidance. In question 1, for example, some candidates wrote several pages in answer to part (b), for which six marks were allocated, while writing less than a page for part (c), for which 15 marks were available.

As usual, many candidates were unable to apply their knowledge to specific scenarios, as evinced by the answers to questions 3(b) and 6. There is little point in candidates learning this unless they can relate it to situations that they are likely to meet in their professional lives. Those teaching candidates for this module should devote a significant amount of classroom time to discussion of scenarios.

Question 5 was the least popular question and was also very poorly answered. While the examiners have no firm evidence, they have the impression that neither teaching staff nor students are familiar with topics such as the Freedom of Information Act or the Regulation of Investigatory Powers Act, perhaps because such legislation is not in force in their countries.

## Question A1

- a) Briefly explain the **purpose** of a **Code of Conduct**. (4 marks)
- b) The BCS Code of Conduct is divided into four sections, one of these sections is 'The Public Interest'; name the other three sections. (6 marks)
- c) Identify and describe THREE different ways that the BCS promotes education. (15 marks)

### Answer pointers

#### Part (a)

A Code of Conduct sets out the professional standards of behaviour that members of the body are expected to follow in their professional life. It applies to all members. It looks outwards, in the sense that it is concerned with the relationship between members and society as a whole. It governs the conduct of the individual rather than of corporate bodies.

#### Part (b)

Professional Competence and Integrity  
Duty to the Relevant Authority  
Duty to the Profession

#### Part (c)

The BCS runs its own system of professional examinations and grants approval to suitable organisations that provide courses to prepare students for them.

The BCS accredits degree programmes offered by universities and other institutions of higher education.

The BCS designs and franchises short courses leading to qualifications in specific areas.

**Syllabus sections:** Professional Institutions, Professional Codes of Conduct

### Examiners' comments

This question was attempted by 90% of the candidates, 73% of whom achieved a pass mark.

## Question A2

- a) The UK recognises two main types of limited company, the public limited company (Plc) and the private limited company (Ltd). What is the main difference between the two? (4 marks)  
  
A limited company may be limited **by shares** or **by guarantee**. Explain the meaning of these terms. (4 marks)  
  
In the UK, the status of "limited company", be it Plc or Ltd, imposes certain obligations on the company. What are these obligations? (4 marks)
- b) Two software developers who have recently graduated from college wish to set up a company aimed at developing music applications for mobile

phones. They have approached you, a business consultant, seeking advice as to whether they should work as a partnership or set up a limited company.

Explain the advantages and disadvantages of the two approaches.

**(13 marks)**

### **Answer pointers**

#### **Part (a)**

The essential difference is that a public limited company can, if it so wishes, offer its shares for sale to the public but a private limited company cannot.

In the event of the company failing, all that shareholders in a company limited by shares stand to lose is the amount they paid for their shares. If a company limited by guarantee fails, the shareholders each stand to lose some fixed (and usually fairly small) amount.

Limited companies must provide Companies House with their articles of association, annual accounts and an annual report. They must provide the names and addresses of their directors. This information will then be publicly available.

#### **Part (b)**

The nature of the organisation's business means that it will need capital to invest in hardware and software to develop its applications. A budding partnership cannot raise equity capital and it will find it extremely difficult to raise loan capital, due to the lack of a business track record. A partnership is therefore only feasible if the two partners can raise fairly large amounts of capital themselves. (3 marks)

A partnership may seem preferable because it comes into existence automatically when the two software developers start working together. (2 marks)

There are no requirements for formal reporting, thus reducing the administrative load and limiting the extent to which competitors can gain information about the company. (2 marks)

However, these are short term advantages and are outweighed by the advantages of a limited company. These are:

- the company can raise capital through the issuing of shares;. (2 marks)
- in the event of the company incurring debts or other legal liabilities, the shareholders (including the two founders) of the company have no obligation to pay these debts; (2 marks)
- shares can be traded and the percentage of the company owned by the various shareholders can be varied in proportion to their contributions (financial or in kind) to the company.

(2 marks)

**Syllabus section:** Organisations and their Structure

### **Examiners' comments**

This question was attempted by 66% of the candidates, 61% of whom achieved a pass mark.

Part (a) was looking for a straightforward statement of some basic facts about companies. The examiners were surprised at how many candidates either did not have this knowledge or were unable to express it.

Many answers to part (b) were weak because candidates failed to address the scenario presented in the question.

## Question A3

- a) UK legislation makes it illegal to discriminate in matters relating to employment on a number of different grounds. Briefly explain FIVE such grounds. **(10 marks)**
- b) Explain why it is necessary for information systems engineers to understand anti-discrimination legislation when they are acting in each of the following three roles:
- i) as a manager
  - ii) as a recruiter
  - iii) as a system designer.

**(15 marks)**

### Answer pointers

#### Part (a)

Two marks each for a brief explanation of any FIVE of the following:

Age,  
Disability,  
Gender reassignment,  
Marriage and civil partnership,  
Pregnancy or maternity,  
Race, colour, ethnic origin or nationality,  
Religion or belief,  
Sex  
Sexual orientation.

#### Part (b)

As professionals, information systems engineers may find themselves in managerial and supervisory positions where the law requires them to prevent the people they supervise from behaving in a discriminatory manner and to avoid such behaviour themselves. **(5 marks)**

Recruitment (and selection) must be carried out in such a way as to avoid direct or indirect discrimination on grounds of any of the protected characteristics. **(5 marks)**

The obligation to avoid certain sorts of discrimination (particularly discrimination on grounds of disability) should influence the way in which information systems are designed, built and implemented. **(5 marks)**

**Syllabus sections:** Legal obligations and human resources management

### Examiners' comments

This question was attempted by 66% of the candidates, 93% of whom achieved a pass mark.

The question was generally well answered. A few candidates confused sex and sexual orientation and others treated 'race, colour ethnic origin or nationality' as two or more different grounds – this is understandable but it is not how the legislation is written.

## Question B4

a) Explain what is meant by the following terms:

- i) fixed asset
- ii) current asset
- iii) current liability
- iv) fixed cost
- v) variable cost.

**(15 marks)**

b) XYZ is a company that undertakes maintenance of computer hardware and system software for clients who have a large investment in IT. The basis of its business model is the rolling one-year maintenance contract. For each of the following, state whether they would normally be treated as a fixed asset, a current asset or a current liability in XYZ's accounts, or none of these:

- i) the stock of spare parts that XYZ maintains in order to be able to fix faults quickly;
- ii) the cost of providing maintenance services to a client who has paid in advance for a twelve-month maintenance contract that has not yet come to an end;
- iii) an outstanding debt owed to XYZ by one of its major customers;
- iv) XYZ's internal telephone switchboard;
- v) an invoice that XYZ has received from its electricity supplier but has not yet paid;
- vi) a loan made to the company by one of its directors, due to be repaid in three years' time.

**(6 marks)**

Give TWO examples of fixed costs that the company might incur and TWO examples of variable costs.

**(4 marks)**

### Answer pointers

#### Part (a)

Fixed assets are items, tangible or intangible, that contribute to the company's productive capacity and are held primarily for the purpose of creating wealth.

Current assets are items which are bought and sold in the course of a company's day-to-day trading activities.

Current liabilities are debts or services that a company must pay or provide within a fixed period, usually one year.

Fixed costs are costs that are incurred independently of the amount of business that the company does.

Variable costs are costs that vary depending on the level of business activity.

### Syllabus section: Financial accounting

#### Part (b)

- i) current asset
- ii) current liability
- iii) current asset

- iv) fixed asset
- v) current liability
- vi) none of these.

Two examples of fixed costs for the XYZ company are rent and/or rates on premises that it occupies and the salary of the chief executive. Two examples of variable costs are the cost of spare parts and the payroll costs of the staff who carry out the maintenance work for the customers.

**Syllabus section:** Management accounting

### **Examiners' comments**

This question was attempted by 68% of the candidates, 61% of whom achieved a pass mark.

Like the performance in the previous sitting, this is a substantial improvement over candidates' performance on accounting questions in previous years. However, the question is very straightforward and demands only basic knowledge. The pass rate therefore shows that a 40% of the candidates who think they know enough about accounting to attempt the question lack even the most basic knowledge. Course providers are recommended to devote more classroom time to the topic and to reinforce this with mock tests.

## **Question B5**

- a) Describe the key purpose and principles of the Freedom of Information Act  
(9 marks)
- b) What information is covered by the Freedom of Information Act?  
(6 marks)
- c) i) Explain how a web site can help a local government department to fulfil its obligations under the FOI.  
(4 marks)
- ii) Describe what is required to ensure the web site complies with UK disability discrimination  
(6 marks)

### **Answer pointers**

#### **Part (a)**

It gives members of the public the right to ask for, and receive, information held by public bodies, in order to make them more accountable. It requires public bodies to regard the disclosure of information as the norm and it requires them to treat all requesters equally, whether they be journalists, local residents, public authority employees, or foreign researchers

#### **Part (b)**

The Act covers all recorded information held by a public authority. It is not limited to official documents and it covers, for example, drafts, emails, notes, recordings of telephone conversations, and so on.

Some additional detail was expected such as:

The Act covers information that is held on behalf of a public authority even if it is not held on the authority's premises or where public services are contracted to an external company.

or

The employees' purely private information is not covered, even if it is on a work computer or email account.

**Part (c)**

- (i) Standard information, data and records can be published on the web site.
- (ii) Under the UK disability discrimination legislation, anyone providing a service to the public should take reasonable steps to make it available to disabled users. Here this might include making sure the web site allows the font size to be adjusted and is compatible with screen readers.

**Syllabus sections:** Legal obligations, the Internet

**Examiners' comments**

This question was attempted by 32% of the candidates, 33% of whom achieved a pass mark.

While the pass rate was low, it is worth noting that most of the answers that passed were good, that is, substantially better than just a bare pass. Furthermore, every candidate who passed on this question passed the paper as a whole.

## Question B6

Norsksaga is a recently established computer games company. It has devised a company logo that consists of a red dragon's head, on a pale blue circular background, with the word 'NORSKSAGA' written around the circumference. Norsksaga is just about to release its first game, an adventure game called Beowulf, based on the famous Anglo-Saxon epic poem; this game includes a novel piece of hardware that attaches to a USB port and simulates the presence of a dragon.

- a) Discuss how Norsksaga could protect its company logo from misuse by other companies or individuals. **(10 marks)**
- b) Discuss the mechanisms by which Norsksaga might protect the ideas and the implementation of the Beowulf game, and the extent to which this protection would be effective. **(15 marks)**

### Answer pointers

**Part (a)**

Norsksaga could register its company logo as a trademark under the UK Trademarks Act 1994, since it is a sign capable of being represented graphically which can distinguish goods or services provided by Norsksaga from other companies.

Norsksaga would need to establish that its logo is not identical with, or similar to, an earlier trademark. This could be done by examining potentially similar trademarks registered with the UK trademarks registrar, using the UK Patent Office website. Registration in the UK only protects the logo in the UK and appropriate registrations through other organisations would be necessary for wider protection.

Registration is not essential for protection in the UK since common law action for the tort of passing off could be taken against anyone misusing the logo. Registration is simpler and more reliable.

The trademark registration would make it a criminal offence for anyone else to apply the logo to their goods, to import, sell or possess by way of trade, goods bearing the logo without authorization from Norsksaga.

### **Part (b)**

Copyright would prevent other companies or individuals from making copies of the game or selling copies of the game made by other people.

Copyright, however, provides only very limited protection against individuals who infringe it purely for their own use. Each individual must be proceeded against individually and damages in each case will be limited to the loss of revenue (plus costs). It gives much stronger protection against infringement for commercial purposes, that is, against anyone who sells pirate copies whether they make the copies themselves or obtain them from someone else. This is a criminal offence so that criminal action can be taken against offenders, as well as action for damages.

It would not be necessary for Norsksaga to take any steps explicitly to register its copyright. This happens automatically and it covers the code itself, design material such as dataflow diagrams, and documentation. The protection lasts for a ridiculously long time!

It should be possible to patent the device for simulating the proximity of a dragon, provided it was new and non-obvious. This would prevent any other company from building a device working in a similar way, for 20 years. However, the legal costs of defending such a patent can be very high.

It would be difficult to protect the ideas behind the game, although the law relating to confidential information might be useful in preventing ex-employees taking the ideas to other companies.

Syllabus sections: Intellectual property rights

### **Examiners' comments**

This question was attempted by 80% of the candidates, 37% of whom achieved a pass mark. This made it both the second most popular question and almost the worst answered.

With a few exceptions, answers were confused and candidates had numerous misapprehensions. A high proportion of candidates believed that ideas could be protected by copyright while few realised the possibility of patenting the device to simulate the presence of a dragon.