

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

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EXAMINERS' REPORT

Professional Issues in Information Systems Practice

General comments on candidates' performance

While the pass rate was not as good as at the last sitting, it was still very satisfactory in comparison with the very low rates experienced in earlier sittings. In particular, the proportion of candidates scoring less than 20% remains comparatively low.

It remains the case that too many candidates fail this module badly because:

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

Many candidates' written English is so bad that it is impossible for the examiners to determine how much knowledge, if any, they have or whether they understand the material.

The poor quality of the answers to questions 5 and 6 would seem to reflect candidates' inability to apply their knowledge to specific scenarios. This is worrying. There is little point in candidates learning the material covered in this module unless they can relate it to concrete 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. It is also suggested that mock exams be used to improve candidates examination technique, which in many cases seems poor.

Question A1

- a) Explain the purpose of professional bodies. **(4 marks)**
- Give FOUR examples of how they can contribute to professional practice in organisations. **(16 marks)**

- b) Explain what is meant by the term **professionalism** in the context of the IT industry. **(5 marks)**

Answer pointers

Part (a)

The purpose of a professional body is to promote the study and practice of the profession in question and to advance knowledge and education in the professional discipline for the benefit of the public.

A professional body can contribute to professional practice in an organisation by:

- providing opportunities for professionals in the organisation to discuss topics of common professional concern with fellow professionals from other organisations, through specialist groups, regional branches, conferences, etc. The BCS, for example, has specialist groups in health care computing through which professionals working on IT in health care meet regularly;
- by promoting, through its code of conduct and disciplinary procedures, profession behaviour both towards clients and towards employers. This reinforces, for example, the obligation to treat as confidential, information about the organisation's affairs and the affairs of its clients;
- by requiring its members to pursue continuing professional development. This will both encourage the professional staff of the organisation to keep their professional skills up to date and encourage the organisation to support them in doing this;
- setting standards of competence to which individuals can aspire, as in SFIPlus.

[The above points were the ones that the examiners thought were most obvious but any other reasonable points were accepted.]

Part (b)

Professionalism in the context of the IT industry involves:

- being aware of, and complying with, relevant legislation and technical standards;
- being aware of, and complying with, relevant codes of individual behaviour (e.g. the BCS Code of Conduct);
- carrying out one's duties and responsibilities with the interests of all stakeholders in mind;
- being prepared, where necessary, to go beyond contractual obligations if this is necessary in order to produce a workable system.

There are many equivalent ways of describing professionalism and any reasonable description was accepted.

Syllabus section: Professional Institutions, Professional Codes of Conduct

Examiners' comments

This question was attempted by 63% of the candidates, 42% of whom achieved a pass mark.

In answering part (a), most students were able to demonstrate some relevant knowledge but many of them failed to structure their answers in accordance with the question. Typically they failed to identify clearly distinct ways in which professional bodies could contribute to professional practice in an organisation. They gave the

examiners the impression that they had never been encouraged to think about such issues.

Many candidates did not attempt part (b). Most of those who did seemed to have little understanding of the topic.

A significant number of candidates did not address the question asked but simply wrote out material they had revised or learned by rote, regardless of its relevance.

Question A2

- a) Why should a manager delegate authority? **(9 marks)**
- b) Through the use of examples, explain the difference between **unfair dismissal** and **constructive dismissal**. **(7 marks)**
- c) List and explain THREE reasons why an organisation might consider outsourcing its IT activities. **(9 marks)**

Answer pointers

Part (a)

The following is a suggested list of reasons which would have earned full marks but other relevant points were accepted.

- managers may not have the time to take all decisions themselves;
- managers may not have all the specialized skills and knowledge required to take some of the decisions for which they are responsible;
- delegations helps to develop skills and judgment in junior staff and so helps in training successors;
- by spreading responsibility, delegation helps to build team spirit and motivate people.

Part (b)

Unfair dismissal occurs when an employee is dismissed

- without proper procedures being followed, for example, the employee is not told why he or she is being dismissed and is given no opportunity to contest the dismissal; *or*
- for reasons that are by law unfair, for example, because of their sexuality; *or*
- because of false allegations, e.g. false accusations of embezzlement.

Constructive dismissal occurs when the employer so varies the employee's conditions of service (typically but not necessarily in a way that infringes the contract of employment) that the employee is left with no alternative but to resign; for example, requiring someone who was employed to work in a fixed location to undertake frequent long distance travel might be considered constructive dismissal.

Part (c)

Any three from:

- In order to recruit suitably skilled and qualified IT staff it is often necessary to offer salaries higher than those offered to staff in other

disciplines with comparable qualifications. This can cause ill feeling and lead to demands for higher salaries from non-IT staff. Outsourcing means that the IT staff are employed by a different organisation and thus avoids such demands.

- Outsourcing enables a user organisation to gain access to technical expertise that it would be infeasible for it to employ directly because it is needed only occasionally.
- Provided that a suitable service level contract has been agreed, outsourcing enables the user organisation to predict and manage its IT costs more effectively.
- Outsourcing IT allows an organisation to concentrate on its core business, without needing to spend valuable management resources on what is, essentially, only a service.

Other reasonable suggestions were accepted.

Syllabus section: Human Resources Management, Organisations and their Structure

Examiners' comments

This question was attempted by 83% of the candidates, 70% of whom achieved a pass mark.

Most candidates answered part (a) satisfactorily.

Some candidates lost marks in part (b) by failing to give examples.

In part (c), some candidates lost marks by referring to the outsourcing of non-IT activities even though the question clearly referred specifically to IT activities.

There were, as always, a significant number of candidates who attempted the question in complete ignorance of some, or all, of the topics that it addresses.

Question A3

- a) The BCS Code of Conduct is divided into four sections; one of these sections is "Professional Competence and Integrity". Members of the BCS are expected to behave with professional competence and integrity. Give THREE explanations as to what this means using relevant examples.

(12 marks)

- b) Describe the system known as management by objectives (MBO).

(6 marks)

Outline the main weaknesses of MBO.

(7 marks)

Answer pointers

Part (a)

Three explanations from the following list.

You shall:

- Do not undertake to do work or provide a service that is outside your professional competence. For example, do not commit your company to writing safety critical software for railway signalling just because it once wrote an accounting application for a railway company.

- Do not claim any level of competence that you do not possess. For example, don't claim to be program in Python if you've never used the language.
- Develop your professional knowledge, skills and competence on a continuing basis, maintaining awareness of technological developments, procedures, and standards that are relevant to your field. For example, take advantage of opportunities offered by professional bodies, commercial organisations or your employer to attend courses, conferences or other meetings.
- Ensure that you have the knowledge and understanding of relevant legislation and that you comply with such legislation, in carrying out your professional responsibilities. For example, if you work with e-commerce systems, you should be familiar with the Electronic Commerce (EC Directive) Regulations 2002 and you should ensure that you keep yourself up to date with amendments to them.
- Respect and value alternative viewpoints and seek, accept and offer honest criticisms of work. For example, listen to what your subordinates have to say and encourage them to offer constructive criticism.
- Avoid injuring others, their property, reputation, or employment by spreading false information or acting maliciously or negligently. For example, do not spread false rumours alleging that a competitor company is about to go into liquidation.
- Do not offer bribes or other unethical inducements and do not accept them if they are offered to you.

Syllabus section: Professional Codes of Conduct

Part (b)

The essence of MBO is that managers and their subordinates agree on a set of objectives for the subordinate to achieve over the next period, typically six months. These objectives should be precise, objectively verifiable and, ideally, quantifiable. In other words, objectives like 'increase the turnover of your division by 10% while maintaining its present level of profitability' are preferable to objectives like 'improve the public image of your products'. At the end of the period, they meet and discuss the extent to which these objectives have been achieved. If the objectives have not been achieved, they will discuss the obstacles that have prevented them from being achieved and how these obstacle might be overcome. They then agree a revised set of objectives for the next period. The process filters down from the highest level of management, where the overall objectives of the organisation are set. At each level, managers take their objectives and break these down into more specific goals. From these goals, they delegate tasks by negotiating goals for their subordinates.

The main weaknesses of MBO are:

- not all legitimate objectives can be easily specified in precise and quantifiable terms. Such objectives are often therefore ignored when using MBO. This is particularly a problem in the public sector;
- the insistence on quantifiable objectives can distort behaviour. For example, setting specific targets for cutting the length of waiting lists in the British National Health Service can lead to doctors choosing patients for treatment on the basis of the effect on the waiting list rather than on their clinical needs;
- MBO tends to emphasise short-term tactical objectives at the expense of long-term strategic objectives.

Syllabus section: Human Resources Management, Organisations and their Structure

Examiners' comments

This question was attempted by 50% of the candidates, 45% of whom achieved a pass mark.

Part (a) was generally well answered. Some candidates lost marks by failing to provide example, despite the fact that these were explicitly asked for.

Despite the fact that Management by Objectives is clearly and explicitly mentioned in the syllabus for this module, very few of the candidates who attempted this question were able to demonstrate any knowledge of it; accordingly they scored no marks for part (b).

Question B4

- a) Explain what is meant by the terms **fixed asset**, **current asset** and **current liability**. **(9 marks)**

XYZ is a company that undertakes large scale software development projects for major organisations, often on a fixed price basis. 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 lease XYZ owns on its main office
- ii) the value of the work in progress on a very large software project expected to last for three years
- iii) an outstanding debt owed to XYZ by one of its major customers
- iv) XYZ's main file server
- v) tax owed to the Her Majesty's Revenue and Customs
- vi) a bank loan repayable at the end of five years.

(6 x 1 mark)

- b) Explain what is meant by the term **overhead**. **(3 marks)**

A software development company owns a powerful server that supports a software development environment, which is used by all its projects. The total cost of running this is £100,000 per year. Discuss briefly the different ways in which this cost might be allocated to individual projects.

(7 marks)

Answer pointers

Part (a)

Fixed assets are assets that contribute to the productive capacity of an organisation. They are therefore held for long periods and not disposed of as part of normal operations.

Current assets are assets that are acquired and disposed of as part of a company's normal operations.

Current liabilities are sums that a company owes that must be paid within 12 months.

- i) fixed asset
- ii) current asset

- iii) current asset
- iv) fixed asset
- v) current liability
- vi) none of the above (a long-term debt)

Syllabus section: Finance

Part (b)

An overhead is a cost item that cannot be directly associated with any particular production item or group of production items.

The annual cost of running the server could be included in employees' charge-out rates by adding the appropriate fraction of it to the payroll and other costs of each revenue-earning employee, either in proportion to the employee's salary or as a fixed sum per employee.

Alternatively, the use that each project makes of the server could be measured – but realistic measurement is difficult – and the annual server costs distributed among the projects in proportion to their use.

Yet another way would be to add a fixed percentage to a project's labour costs to cover use of the server.

Syllabus section: Management Accounting

Examiners' comments

This question was attempted by 57% of the candidates, 49% of whom achieved a pass mark. This is a substantial improvement over candidates' performance on accounting questions in previous sittings. The improvement reflects the fact that candidates answered part (a) of the question well. Answers to part (b), which involves more subtle considerations, were poor.

Question B5

- a) Terrier Insurance is an insurance company that sells car insurance, property insurance and many other kinds of insurance through its web site.

Describe the effect that the following pieces of legislation will have on the company's web site and associated procedures:

- i) disability discrimination legislation **(6 marks)**
- ii) legislation regarding e-commerce and distance selling. **(6 marks)**

- b) Peter is a cricketer. He has suspicions that a team mate, Fred, is involved in some 'match fixing' as part of a betting group. In this case he believes that bets are being placed on which ball Fred will get out on. Rather than raise it with the Fred or the team captain, Peter makes a comment on a social media site accusing Fred of this action. Peter believes that only his friends will read this comment but it is shared publicly. Fred disputes the accusation and is intending to take legal action.

Explain the law of defamation as it relates to Peter's actions.

(6 marks)

What responsibility do the social media site or internet service provider that Peter is using have?

(7 marks)

Answer pointers

Part (a)

- i) Under the UK disability discrimination legislation, a service provider should not make it unreasonably difficult or impossible for disabled user to use a service provided for the public.

The e-commerce website should be accessible to users with a disability, for example those users with visual or hearing impairments.

In order to make the e-commerce system accessible the following adjustments could be made: use of large clear fonts, good contrast between text and backgrounds, and the use of descriptions for images or videos in the system.

- ii) The Financial Services (Distance Marketing) Regulations 2004 provide that you must be given the following information before you buy the policy:
- the identity and geographical location of the insurance company;
 - a description of the main characteristics of any policy you are going to purchase;
 - the total price you must pay, including all fees, charges and expenses
 - information about your cancellation rights.

Syllabus section: Legal Obligations

Part (b)

Defamation means making a statement that will damage someone's reputation, bring them into contempt, make them disliked, etc. The author and publisher can both be held liable. Fred could therefore sue Peter and the social media site.

This action by Peter would appear to imply dishonesty without any appropriate evidence. It would therefore be considered libel and Fred could sue both Peter (the author) and the social media site (the publisher). Peter's claim that it was just intended for his friends is irrelevant; it is still libel, unless, of course he could provide evidence to show that the claim is true.

The social media site would be considered the publisher. As such, Fred could sue them, but they could claim that they cannot monitor everything. However, if Fred complained to them and they refused to remove the allegation, then they would be liable.

The internet service provider (ISP) is protected by the E-Commerce Regulations 2002, provided they take down the libel expeditiously if they are made aware of it.

Syllabus section: The Internet

Examiners' comments

This question was attempted by 58% of the candidates, 33% of whom achieved a pass mark.

Question B6

ClothesGalore is a large UK clothes outlet for leading brands in many cities. The company is considering creating a 'try-it-online' web site for customers to visualise through the web site how clothes look on themselves. ClothesGalore is not the first company to provide an online provision of this type.

- a) Explain how ClothesGalore can protect its intellectual property for the new service using:
- i) trade marks (5 marks)
 - ii) copyright and design rights (8 marks)
 - iii) domain names. (5 marks)
- b) Another UK company, Virtualshop, has complained that ClothesGalore has copied its ideas for the e-commerce facility and is therefore infringing its intellectual property rights.

On what grounds might Virtualshop take legal action?

(7 marks)

Answer pointers

Part (a)

- i) A trade mark is a sign capable of being represented graphically that distinguishing the goods or services offered by a the organisation owning the trade mark. ClothesGalore can its protect logos or other trade marks through registration. This will prevent other companies from using trade marks like them. Registration is, however, geographic and so needs to be repeated in every country in which they expect to trade.
- ii) Both are automatic rights granted through the creation of items. Copyright gives the author of any text, including code, rights of protection from copying. Similarly the creator of any design owns the design rights. In this case the design could be the design of the clothes as displayed on the screen.

The law provides protection from copying the work, issuing copies or making adaptations. This will prevent any other company from copying ClothesGalore's software. Copyright protection is for 70 years. It does not protect the idea of the software, only the original code.

- iii) Internet domain names are a way of identifying business's web sites. There is no direct link to trade marks, but an overlap in purpose. Domain names are globally unique, but trademarks are not. Domain names are allocated by a non-government body. If ClothesGalore wants to that as its domain name, it will be important to register it quickly before anyone else does.

Part (b)

In order to take legal action for copyright infringement, Virtual shop would have to show that its code or design documentation had been copied. Copyright does not protect ideas as such.

The law of confidential information will allow Virtualshop to sue for damages if it can show that confidential information about its systems or business methods has been passed to ClothesGalore.

If ClothesGalore is using a logo or similar that resembles Virtualshop's then action for trademark infringement or passing-off may be possible.

Examiners' comments

This question was attempted by 89% of the candidates, 18% of whom achieved a pass mark. This made it both the most popular question and, by far, the worst answered.

Part (b) was particularly badly answered with a high proportion of candidates believing that ideas can be protected by copyright.