

**BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 6 Professional Graduate Diploma in IT**

April 2010

EXAMINERS' REPORT

COMPUTER SERVICES MANAGEMENT

General comments on candidates' performance

The answers for most questions were generally of a lower standard than in previous examinations. Around 10% of candidates performed very badly indeed; the examiners presume they had made no effort to prepare themselves for this examination, either by reading the prescribed textbooks or by studying computer services within organisations. As mentioned in previous examiners' reports, candidates are advised that their performance in the examination is likely to be enhanced if, in addition to reading the recommended material, they visit the computer services departments of their own or other organisations. This will put their theoretical knowledge into context and make the whole subject easier to understand and remember.

Too many candidates failed by not reading the question. Rather than give the required answer, some candidates merely provided a commentary about the question, completely rewrote the question, or provided a long answer completely unrelated to the question as set. A number of candidates provided business, rather than computer services, answers and were unable to gain marks as a result. Many failed to make even an attempt at all parts of a question.

Fortunately there were some papers of a high standard. These candidates clearly had prepared themselves for the examination by reading the required material, including past examiners' reports.

To save time and to maximise marks, candidates should carefully consider the "command" word given as part of the question. For example, if the command word is "describe", it means just that – a description, not a list of points. Similarly, if the command word is "discuss", it means that the candidate is expected to build up an argument using facts and examples to justify any points made; a simple description will not be sufficient.

The answer pointers below are for guidance only and, to gain full marks, would have to be expanded. Valid alternative answers that were relevant to the questions set would also attract marks.

Section A

A1. The medium sized business for which you work, as the IT Infrastructure Manager, has announced that it will be moving to new offices three months from now. The move will need to be divided into stages to ensure that the business, a specialised financial consultancy agency, continues to operate throughout the move.

a) Write a report for the Managing Director of the company outlining three key risks to which the routine IT operations will be exposed during the move. You should state any assumptions that you make about the organisation or the logistics of the move. (15 marks)

b) For ONE of the routine IT operations you have described, produce a project plan to show how the risk can be managed and controlled. (10 marks)

Indicative answer points:

Section a):

3 marks for report format and style of approach

4 marks for each of THREE key risks to the company

Section b):

2 marks for the structure of the plan – which can employ any suitable standard methodology, or the candidates own...

4 marks for discussing the management of the risk

4 marks for demonstrating how it is under control

- Preparation of new site – readiness, logistics, supply and commissioning of new equipment, services including power supply and cooling systems, physical security, installation and testing of alarm and monitoring systems
- Maintenance of existing site – potentially reduced staff for operations while new site being developed, need to continue control of standard operations such as security updates and backups
- Transfer of resources – planning of logistics including risk of equipment failure during decommissioning / commissioning, appropriate control of equipment handling, security in transit and while being transhipped
- Controlled shutdown of old facility and safe disposal of redundant resources
- Documentation of plans, resources, interdependencies and fall-back solutions
- Enhanced mechanisms for response to service loss and customer support

Examiners' comments:

Nearly 80% of candidates attempted this question and some good answers were obtained – although the overall performance was disappointing – with several candidates scoring very low marks.

Challenges of this type are regular events for IT professionals and it an area which can be of very high significance for organisations – making the performance of the IT staff very obvious to the organisation as a whole and the senior management in particular.

A2. A financial audit report has identified that your company has continued to pay an expensive contract for the maintenance of server systems and disk arrays that were actually de-commissioned and removed from the building several years ago.

The Board has recently appointed you to the role of IT Services Manager and has asked you what actions you intend to take to prevent such expensive and embarrassing situations arising again in the future.

a) Write a memo to the Board outlining the approach you intend to take in bringing matters under control. You should include details of three significant relationships with other organisational groups within the company essential to the success of your proposals. (12 marks)

b) For ONE of these relationships, write an operational document which can serve as a template for your staff in managing the relationship you have described. (13 marks)

Indicative answer points:

Section a):

3 marks for memo format and style

3 marks for each of THREE significant relationships with other groups

- Relationships will include:
 - Internal auditors
 - Procurement manager
 - WEEE compliance manager
 - Financial controller
 - IT operations manager

Section b):

3 marks for document style and structure – reflecting the nature of what is requested

5 marks for the extent to which the content deals with the requirement

5 marks for the completeness of the solution in terms of control

- The former IT Services Manager has apparently been dismissed for this gross misconduct, so the senior management will be looking closely at your approach
- The visibility of the issue is such that a complete and auditable solution is required
- Effective configuration management will be a good start
- An integrated workflow managing cradle-to-grave for equipment and service contracts is the ultimate goal.

Examiners' comments:

Only a quarter of candidates attempted this question, and very few answers were forthcoming which were more than “adequate”. A number of candidates scored no marks at all and were – in the opinion of the examiner – wholly unsuited for attempting an examination at this level.

Those candidates who scored best demonstrated an understanding of the role of the IT Services Manager in the wider corporate context.

A3. You are the Head of IT Services for an educational charity based in the UK. Your organisation, which employs about 300 people, has used an in-house developed electronic mail service since the charity was established in 1995. Feedback from the users of the email service increasingly suggests that it is proving unreliable and therefore unpopular. Many members of staff now use their own ISP based email accounts to carry out work tasks - even when they are based in their office - as they claim that essential facilities are lacking in the organisation's own email system.

a) Describe THREE risks which you believe this situation presents to the organisation.
(12 marks)

b) Using the risks you have described, produce a project plan showing how you would formally approach and resolve the situation to the satisfaction of both the users and your Manager.
(13 marks)

Indicative answer points:

Section a):

4 marks for each of THREE risks to the organisation, including but not limited to:

- Lack of control over commercial and potentially sensitive information
- Potential visibility of such information outside the managed network environment
- Lack of clarity over Companies Act compliance, Data Protection and (if receiving public funding) Freedom of Information requirements
- Lack of strategic control over core business information

Section b):

3 marks for the structure of the project plan

5 marks for the means you would use to approach the problem

5 marks for the way in which you would resolve it

- Gather complete data on what is perceived to be wrong with the system
- Define the corporate requirement and seek approval and commitment
- Build and deliver the new environment (which need not be in house...)
- Train everyone in the new facilities and features
- Demonstrate how it meets (or exceeds) the user expectation
- When fully commissioned and operational, capture the "lost" communications and remove access to the informal email channels
- Ensure that new requirements are captured and taken forward to prevent a recurrence of the problem

Examiners' comments:

This question was attempted by more than 80% of candidates, and while the majority of answers did not advance beyond the "adequate" level a few very good solutions were obtained. Again, a number of candidates showed no knowledge whatever of the subject area and, in the view of the examiner, were not at all prepared for an examination at this level.

Section B

B4. The Chief Executive Officer of a medium-sized organisation is concerned with the high cost of the in-house IT services. He has recently attended two presentations: one by an organisation that provides a traditional outsourcing service and another which is a leading provider of cloud computing. Both presentations were impressive and he has asked you, an independent consultant, to help him understand the differences between the two approaches. Prepare a report which:

- a) contrasts the service provision, staffing and charging of the two alternative approaches.

(10 marks)

- b) provides advice on how the provision of IT services by an external provider could be managed.

(10 marks)

- c) recommends and describes the governance procedures that the company should contractually impose on the selected provider.

(5 marks)

Answer Pointers

a) Cloud computing v Outsourcing

Service provision

- Cloud computing companies (CCC) host software applications and allow client companies to share the use of these standard applications. Often CCCs are accessed via an internet connection. The CCC is responsible and has full control of the maintenance of the application. Client organisations would have to adapt to the CCC's systems.
- Outsourcing companies take over an existing organisation's applications, which are unique to that organisation. The outsourcing company will maintain the applications on the organisation's behalf but the degree of maintenance, release state, etc will be largely dictated by the client. The client would not need to change systems.

Staffing

- Outsourcing companies take on complete IT services from organisations and under TUPE are also required to take on the staff involved.
- CCC companies will have staff already in place. Unless there is a major transfer of functions, they will not take on the client organisation's staff

Charging

- Charging for CCC services is on a usage basis, whereas for an outsourcing company charging is for the total IT service provision, irrespective of usage.
- The CCC is responsible for application maintenance, communication with the software vendor and licensing. There are no transferred charges to the client company. An outsourcing company will pay all charges on behalf of the client organisation but will pass on these costs to the client organisation.
- Subscribing to a CCC allows companies to avoid purchasing, installing, supporting and upgrading expensive software applications. Therefore the target market for CCCs is small to medium-sized companies or companies wishing to trial applications.

(2 marks for each point raised, maximum 10 marks.)

b) Managing suppliers of IT services.

There is no set answer to this question but the candidate needed to express an appreciation of the requirement to establish joint teams to manage the relationship and to have these working at different levels. Typically, an organisational structure to manage outside IT suppliers will consist of:

- Management Board. This would consist of senior/Board members of the client organisation and those of the outside suppliers. They would typically meet twice a year and would be concerned with strategic issues, IS architecture, contract renewals, price increases, client surveys, new systems, etc.
- Management Committee. This would consist of middle managers from the client's users, IT managers from the client organisation and delivery managers from the suppliers of the IT services. They would meet monthly to review monthly service levels and operational issues, consider any changes to the services being provided, discuss tactical plans and review monthly charges.
- Operational teams. There would need to be teams established to handle the day-to-day operational issues that arose. These may involve the client's remaining IT staff and/or the client's user staff.

(5 marks each for any two points explained, maximum 10 marks, some at examiner's discretion.) *(A valid alternative answer would be the provision of an SLA, with key monitoring points explained.)*

c) Governance procedures

- All service levels must be within preset or benchmarked levels
- There must be agreed escalation and dispute resolution procedures
- The degree of "open-book" accounting must be determined
- There should be no exclusive agreements (new services can be put out to tender)
- There must be unambiguous charging, linked to realistic indices
- There must be agreed exit procedures
- Limits of liability must be preset.
- Other at examiner's discretion

(One mark for each, maximum 5 marks.)

(If not used, or only partly used in b), the contents of a SLA would be an alternative governance answer.)

Total: 25 marks (10 + 10 + 5)

Examiners' comments

About 60% of candidates attempted this question, which was answered moderately well. Candidates lost marks for Part a) by failing to contrast the two services. Key words in the question were "service provision", "staffing" and "charging" and contrasts between the two services were expected under these headings. Some candidates did not mention cloud computing at all, concentrating only on outsourcing services and losing marks as a result.

Part b) was answered well, with many candidates explaining how a SLA and some service metrics could be used to manage the service.

Part c) was also answered well, with even the weaker candidates obtaining a few marks.

- B5. You have recently been appointed Computer Services Manager for an organisation that has suffered badly as a result of the global recession. Although the company is now beginning to make profits, this has only been achieved by reducing staff levels and postponing all capital expenditure.

The computer services area has been particularly badly affected and there are a number of issues that require your urgent attention. Staffing levels have been reduced and there have been no pay rises, promotions or training. Staff are overworked and the end users are dissatisfied with the services provided. Also, to ensure continued support, a new DBMS software release is required next month. As DBMS software is used for the business-dependent systems, its failure would have catastrophic consequences.

The management has given you an insufficient budget to resolve these problems.

Discuss how you might approach all of the issues described above.

(25 marks)

Answer pointers

This is a discussion question, typical of the type of issue faced by computer services professionals.

There are many alternative answers but the examiners were seeking to assess the candidate's knowledge and understanding of both computer services and the management of staff and how a limited budget could be used. Points that could be discussed included:

- Service levels: must be improved/maintained as the first priority.
- Arguably, the next priority would be to purchase the new release, as the continued reliability for business-dependent systems is vital.
- The next priority should be training, as this will raise service levels, increase customer satisfaction and boost staff morale.
- The end-users should also be engaged to see if the levels of service, such as hours of availability, could be reduced to save costs. Certainly a dialogue with the users is needed if service levels and perceptions are to be changed.
- If there is not a form of service agreement with the users, the staff should work towards creating one that is achievable, given the reduced resources available. The users should be persuaded to accept this.
- Any money left could be used for promotions/pay rises. It might be necessary to grade staff and place them on a salary scale.
- Steps should be taken to raise morale. These could include reviewing individual staff performances, listening to staff concerns and being openly frank and candid about the organisation's situation.

(Looking for five points, clearly argued, justified and with appropriate priority. Five marks per point, maximum 25 marks, some examiner discretion.)

Total: 25 marks (5+5+5+5+5)

Examiners' comments

This was answered by 60% of candidates but the quality of answer was generally lower than expected. The main concern was either the brevity of the answers supplied or the absence of any meaningful discussion. This was disappointing, as the examiners thought many candidates would have been able to draw on their own experiences of the world recession and its impact on computer services.

This question gave candidates an ideal opportunity to demonstrate their knowledge of computer services by prioritising the issues raised in the question and justifying the priority, given the limited budget. Instead, many just commented on the issues and stated that ALL required urgent attention.