BCS THE CHARTERED INSTITUTE FOR IT

BCS HIGHER EDUCATION QUALIFICATIONS
BCS Level 5 Diploma in IT

IT SERVICE MANAGEMENT

EXAMINERS' REPORT
March 2015

General comments on candidates' performance

The overall pass rate was good, however the lack of knowledge demonstrated by some candidates is surprising given the subjects covered by this module are useful to anyone working, or wishing to work, in the ICT sector.
Candidates are strongly advised they must prepare themselves by covering and understanding the syllabus.
A number of candidates only attempted three questions, and for which they obtained reasonable marks, had they attempted and obtained just a few marks for a fourth question they would have passed.

A1.

You are a member of the data management team in the information services department of a large public hospital in England. Your manager, who is responsible for liaising with other government services, asks you to copy a large set of medical information about patients at your hospital onto removable media which will be sent by post to another organisation. You are aware that this data set contains sensitive personal information regarding the health of the patients. The data set includes material not routinely shared online as part of standard hospital policy.

a)
Identify THREE questions that you would ask your line manager before carrying out this activity. You should provide reasons for asking each of your
questions.   (15 marks)

b)
You do not receive satisfactory answers to your questions and your manager tells you to "take it up with the boss". Write a memo to the Head of the Information department at the hospital describing your concerns and how you think the organisation should proceed.
                                                                                                        (10 marks)

Answer pointers

- An operation of this sort would be expected to have a formal path for authorisation. This should be visible to, and able to be challenged by, the person instructed to carry out the task.
- The person carrying out the task must be able to satisfy themselves that the action they take is appropriate and legal.
- The phrase "sensitive personal information" carries a strict meaning under the Data Protection Act (1998). It covers areas such as health, sexual life, trade union membership and other areas. There are specific levels of security and assurance required for the processing of this information.
- The level of protection of the data during and following the transfer must be understood and appropriate to the risk of the data being exposed.
- The mechanism for transporting the data should be determined – and challenged if necessary. Is the use and movement of removable media the most appropriate mechanism to achieve the business need?
- Should the activity be carried out within the organisation – providing access as necessary, in a controlled manner?
- The use of memo format is an important element of section (b) – as candidates need to demonstrate that they can use standard business formats.

Examiners' Comments

This question was attempted by most candidates and was well answered in many cases resulting in a good success rate. Some answers, however, were of a very low standard.

Those candidates who scored most highly included detailed, reasoned accounts of the questions they would ask – and how they would follow-up the unsatisfactory answers. This is a topic likely to arise in a wide range of professional circumstances, and it is important that candidates can address the requirements of law.

A2.

The highly respected finance company you work for, as an operations specialist, has suffered several embarrassing breaks in the IT service over the past year, due to problems with access to Internet resources. You believe that the problems were caused by a number of staff seeking access to online gambling services, chat-rooms and video streaming services – which have overloaded the wide area network link and caused critical business applications, which rely on timely access to web-based databases, to fail.

a)
Describe THREE steps that you would take in order to confirm that the diagnosis of the problems is correct.   (9 marks)

b)
Write an email to the managing director of the company describing two reasons why this non-business use of network resources is placing the company at risk.   (8 marks)

c)
Explain how you would manage the IT service to prevent such misuse in the future.
(8 marks)

Answer pointers

- It is likely that the video streams originate outside the organisation. Either removing the link to the internet or blocking video packets at the router/firewall may be sufficient to demonstrate the problem.
- Network analysis software could be employed to record and model the daily profile of traffic around the local area network. This should probably be part of standard practice for the organisation – but the granularity of the analysis may need to be refined in order to adequately monitor video traffic levels.
- More pragmatically, a trusted set of staff could carry out a standard set of daily business activities on a non-working day – looking for peaks of traffic which would point to issues with the standard activities/applications themselves. Needless to say, these staff should not be streaming video themselves!
- There is a need to determine whether video streaming actually has a business function. It could be, for example in a financial trading room, that staff need access to video feeds from news services in order to react to changing trading conditions. Understanding the business need would enable a better modelling and resourcing of service provision.
- The use of memo format is an important element of section (b) – as candidates need to demonstrate that they can use standard business formats

Examiners' Comments

This question was attempted by most candidates, and many answers were of good quality – resulting in an acceptable pass rate.

Unfortunately, a number of candidates performed very poorly in their response to this question.

A3.

Your organisation, a medium sized company which sells car insurance, is being moved to a new building. The server hardware team intend to replace the existing servers, which are conventional rack-mounted systems, with a remotely served cloud based solution for processing and data storage. This removes the need to establish a new server room environment at the new site.

a)
Discuss THREE areas of operational risk specific to this new environment which would need to be carefully managed. (15 marks)

b)
Describe in detail a test procedure you would use to ensure that ONE of these risks is managed to a specified standard once the new system is placed in service. (10 marks)

Answer pointers

- Depending on the context and architecture, a substantial increase in available wide areas network bandwidth may also be required – especially in applications that are I/O intensive.
- The extent to which the company becomes reliant of the stability and quality of wide-area network services should be emphasised.
- The test schedule should review in detail one area of operational risk which is relevant. The schedule should describe a set of test conditions which can be assessed in terms of real-world capability.
- The layout of the test schedule should be simple and readable.

Examiners' Comments

This question was attempted by a minority of candidates.

Many candidates failed to produce a test schedule for part (b) which met the requirements which would be standard in this scenario in a professional environment.

B4.

(a)   List and describe the main characteristics of information used to support the main business activities carried out at the operational, tactical and strategic levels.

(15 Marks)

(b)   Rather than developing bespoke applications, software packages have become standard solutions in helping to fulfil the transaction processing needs of business organisations.

Describe THREE advantages and TWO disadvantages that can accrue from using software packages in an effort to fulfil the transaction processing needs of an organisation.

(10 Marks)

Answer pointers
a)   Operational: Short term, high quality, internal, detail, high accuracy, programmable.
Tactical; Medium term, relatively good quality, internal and external, summary, relatively accurate, and programmable and non-programmable.
Strategic: Long term, not always good quality, mainly external, highly summarised, may not be accurate and non-programmable.

5 marks for listing and describing four points from each of the operational, tactical and strategic levels. (15 Marks)

b) Relevant points are as follows and other relevant points were awarded marks.

Advantages: Critical mass in driving package development (user group).
Sharing of development costs.
Bespoke fit to organisation's needs
Faster implementation time.
Proven system (as long as you don't buy version 1.0).

Disadvantages: Need to fully manage all upgrades.
Pay the full development cost.
"Same" software as everyone else – no competitive advantage.
Longer implementation time.
Higher risk of failure, due to bespoke development.

2 marks for describing each of the five points put forward. (10 Marks)

Examiners' Comments
Part a) of the question was well answered by the majority of respondents.

In part b) of the question most candidates gave an adequate answer. A small percentage of respondents referred to user training as a disadvantage. User training is essential for software be it a package or a bespoke solution.

B 5.

(a) Describe THREE potential advantages and TWO potential disadvantages a company can achieve by outsourcing development of its management information systems rather than developing them in house.

(15 Marks)

(b) When developing application software, describe FOUR advantages the data flow approach has over narrative explanations.

(10 Marks)

Answer pointers

a)
Relevant points expected are as follows, other relevant points were awarded marks.

Advantages: Expertise in such development.
               No need to project manage the development.
               Reduced cost as no need to hire staff and purchase capital equipment.
               Reduced risk of failure.
Disadvantages: Loss of trade secrets.
               Unfavourable contract terms and conditions.
               Non-cooperation from organisation's current IT staff.

3 marks for describing each of the five points put forward.   (15 marks)
b)
Relevant points are as follows and any other relevant points were awarded marks.

Freedom from committing to the technical implementation too early.
Better understanding of the relationship between systems and sub-systems.
Ease of communication with users (i.e. a picture paints a thousand words).
Analysis of proposed system helps determine if the necessary data and processes have
been defined.

Up to 2.5 marks for describing each advantage.   (10 Marks)

Examiners' Comments
Part a) of the question was a well answered. However, some respondents said cost was
an advantage while other respondents said cost was a disadvantage. By making such
statements without the support of a plausible argument, the statement is rendered
incorrect.

Only a very small minority of candidates who attempted part b) answered it well.

B6.

(a)   Identify and describe THREE issues which need to be considered when
       introducing an information system to an existing organization.
                                                                       (15 Marks)

(b)   Describe what is meant by end user computing and explain under what
       circumstances end user computing is the most appropriate development approach.
                                                                       (10 Marks)

Answer pointers

a)

The candidate was expected to provide three examples that demonstrate benefits cannot be achieved by merely installing an information system on top of current organisational structures and practices. Each example should show that the changes required to the organisational structures and practices have to be managed, so that benefits can be achieved. Up to five marks for each example.

b)   Relevant points are as follows and any other relevant points were awarded marks.

End user computing is enabling users to develop their own software within a structured and controlled environment. Such an environment is to ensure the software is developed to a high standard and does not impact on other information systems within the organisation in an adverse manner.   (5 Marks)

End user computing is appropriate when no system currently exists in the organisation to meet user specific needs. Such systems should never take the place of systems that are core to the running of the organisation and data from end user systems should never be uploaded to an organisation's core systems.   (5 Marks)

Examiners' Comments

Part a) of the question was well answered by the majority of candidates, with an excellent and wide ranging variety of points made.

Unfortunately for part b) the evidence shows that a number of candidates demonstrated no understanding of end user computing, with a small minority confusing it with prototyping. Those who did show an understanding of end user computing also put forward applicable circumstances under which end user computing is the most appropriate development approach.