

BCS THE CHARTERED INSTITUTE FOR IT

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

COMPUTER SERVICES MANAGEMENT

Thursday 4th April 2013 - Morning

Answer **any** THREE questions out of FIVE. All questions carry equal marks.

Time: THREE 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 NOT allowed in this examination.

Section A

Answer Section A questions in Answer Book A

- A1. You are an independent specialist IS/IT contractor currently working for a government department on the implementation of a major project related to national security. The project is intended to draw personal information from a large number of government sources and provide reports regarding imminent security threats.

As the project continues, you become concerned and believe that aspects of the system are fundamentally flawed. Errors in the system mean that it is likely to provide inaccurate and misleading reports which will have a potentially serious impact on the people falsely identified.

- a) Describe THREE options which you would consider in order to bring your concerns to the attention of the appropriate people. You should include details of any constraints there might be on your actions.

(15 marks)

- b) Despite your professional approach, you do not consider that your warnings are being taken seriously within the department. Discuss, with reference to the constraints you have detailed above, what your next actions should be.

(10 marks)

- A2. A credit control agency, employing around 1000 staff in the UK, has for many years run a traditional three-shift system for the computer operations staff. This means that there is a core of technical expertise available on site twenty four hours a day, seven days a week. Because of the nature of the business, the board of directors insists that the very large database infrastructure is supported in-house and is reluctant to use outsourced or cloud-based services.

Increasingly the computing environment is run as a "lights out" operation, with most routine management being automated. Many senior managers believe that a single shift would now be perfectly adequate, supported by an "on-call" system and remote network access to key systems for trouble-shooting purposes.

- a) With reference to THREE specific examples, discuss whether or not you support a move to the single shift system. You should state any assumptions which you make regarding the company and its business model.

(15 marks)

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- b) Write a memo to the Director of Information Services describing your conclusion. You should include an outline of the on-going financial and operational impacts of your choice.

(10 marks)

A3. You are the newly appointed Information Security Manager of a large company which deals with confidential medical information. During your first visit to one site of the organisation you are surprised to find that many of the staff use USB memory sticks to share photographs, music files and other multimedia content between their desktop PCs, laptops and other devices. The User Services Manager at the site has banned the practice and had also blocked these file types from being downloaded using the organisation's internet connection. However, no-one seems to be taking any notice of the User Services Manager's instructions.

- a) In a report to your senior management, discuss THREE different risks that the organisation is exposed to by the use of USB memory in this way.

(12 marks)

- b) For ONE of these risks, write a technical report for the User Services Manager detailing how the risk can be controlled. The report should include a detailed implementation plan.

(13 marks)

Section B

Answer Section B questions in Answer Book B

B4. A university's computer systems have become fragmented over the years, resulting in servers being located in various buildings at different parts of the campus. It has been decided that all servers are to be physically relocated to a large new building which will also contain administrative offices, a restaurant area, a boiler room, UPS equipment and a standby generator.

a) Giving reasons, describe the ideal location for the computer room within the new building.

(10 marks)

b) Describe other features that should be included within the building design to enable the use of computing equipment by many students working for long hours.

(10 marks)

c) Explain how an UPS and standby generator combination could ensure continuity of electrical supply.

(5 marks)

B5. "The increased availability and reliability of cloud computing facilities indicates the end of the traditional computer services department."

Discuss the extent to which you agree or disagree with this statement.

(25 marks)