THE BRITISH COMPUTER SOCIETY

THE BCS PROFESSIONAL EXAMINATIONS
BCS Level 6 Professional Graduate Diploma in IT

MANAGEMENT INFORMATION SYSTEMS

25th April 2008, 2.30 p.m.-5.30 p.m.
Answer THREE questions out of FIVE. All questions carry equal marks.
Time: THREE hours

*The marks given in brackets are **indicative** of the weight given to each part of the question.*

Calculators are **NOT** allowed in this examination.

1. The Managing Director of a medium-sized UK furniture retailing company is considering the development of MIS applications to enhance existing business operations. Finance available for the systems is limited, and therefore any systems development activities by the IT Department must be focused on the most important MIS applications.

    a) Describe a process by which this company can ensure that they target their systems development activities towards the most important MIS applications.

    (16 marks)

    b) List and justify who would need to be involved in this process.

    (9 marks)

2. Quickparts Electrical is a company that specialises in providing spare parts for heating systems installed in buildings. Unlike its competitors, who only supply spares according to the heating system manufacturer's part number, Quickparts uses experienced and knowledgeable advisers to ensure the correct part is purchased. They also advise on an alternative part if the original is unavailable. This approach has proved most successful and Quickparts needs to recruit additional advisers if it is to meet rising demand.

    The Board of Quickparts has met to discuss how to cope with the rising demand. Because advisers are expensive to recruit and train, a software supplier has suggested that products could be sold over the Internet using a knowledge-based system. The experienced advisers would be responsible for inputting the knowledge data and for answering, by email, those queries that are beyond the scope of the new knowledge-based system.

    The Board broadly agrees with this approach but is concerned that the company's reputation could suffer if the knowledge-based system gave the wrong advice.

    As an independent consultant brought in to advise the Board:

a) Describe knowledge-based systems and explain how such systems could be implemented at Quickparts Electrical.

(12 marks)

b) Explain how the knowledge-based system should be tested.

(13 marks)

3. A financial services company wishes to implement a small Customer Relationships Management (CRM) system. However the company is unsure whether they should implement an in-house database application or whether to purchase one of several "off-the-shelf" CRM software packages and then tailor it to meet their specific needs.

a) List and justify the factors that the company needs to consider when selecting whether to develop a CRM application system in-house or to procure one of the available "off the shelf" CRM packages.

(15 marks)

b) If the company opts for the "off-the-shelf" option, it has to decide between the several CRM packages available. Explain a suitable process by which the most appropriate package could be selected.

(10 marks)

4.

a) Critically evaluate both the traditional and the Rapid Application Development (RAD) approaches to the development of MIS.

(15 marks)

b) Discuss and justify which of the two development approaches, traditional or RAD, you would recommend for each of the following situations.

i) An insurance company which requires an accounting system to process and record the collection of premiums obtained from customers' bank accounts.

ii) A supermarket chain which requires a system to gather data from each of its retail outlets in order to analyse and summarise the sale of each product.

(2 x 5 marks)

5. For each of the following software systems, describe their principal features and explain clearly how they can be used in the provision of a company's MIS capability.

a) Enterprise Resource Planning (ERP) software.

(9 marks)

b) Content Management System.

(8 marks)

c) Business Intelligence (BI) tool.

(8 marks)