THE BRITISH COMPUTER SOCIETY

THE BCS PROFESSIONAL EXAMINATION
Professional Graduate Diploma

MANAGEMENT INFORMATION SYSTEMS

23rd April 2001 – 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.*

1. RockingHorse is a small chain of retail stores selling high quality, fashionable children's clothes and toys. The IT Manager is considering the purchase of an MIS for RockingHorse, but does not know whether to purchase a package "off-the-shelf" or to develop a bespoke system.

    As an expert MIS consultant, prepare a report for the IT Manager that discusses the relative merits and disadvantages of:

    a)   Purchasing an off-the-shelf MIS package.
    b)   Developing a bespoke MIS system.

    State any assumptions you make about RockingHorse within your answer.   **(25 marks)**

2. *a)*   Explain **THREE** of the following MIS concepts, highlighting the principal benefits that they bring to organisations. Illustrate your answer with appropriate examples.

    i)   Executive Information System (EIS).
    ii)   Decision Support System (DSS).
    iii) Data Warehouse.
    iv)   Office Automation (OA).
    v)   Multidimensional Database System.   **(15 marks)**

    b)   For the **THREE** concepts you have chosen to explain in *a)*, describe the ways in which they could be combined in the provision of a company's MIS.   **(10 marks)**

3. *a)*   You are the recently appointed IT Director of a small insurance company with several small remote branches. Although the company has used departmental local networks for many years, it has resisted progressing to a corporate network that could link both departments and branches. Your fellow directors have been to various presentations and have read many articles concerning networks. Write a report to explain the following terms and their relevance to an MIS function:

    *   Local Area Network (LAN) and Wide Area Network (WAN)
    *   Packet switching
    *   Bandwidth
    *   Client server
    *   Electronic Data Interchange (EDI)   **(15 marks)**

    b)   One of the directors has read that Internet applications should be developed using a "thin client" technology. Explain the meaning of thin client in your report and discuss the implications upon future systems development.   **(10 marks)**

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4. You have been employed as an IT consultant for an electrical goods manufacturer. The Managing Director is very concerned that the success of past commercial computer developments is mixed, with some developments exceeding user expectations and others being complete failures. Upon investigation you find that either Rapid Application Development (RAD) or structured approaches were used for the development of these systems, although there appears to be no correlation between success or failure and the methodology used.

a) Describe the key drivers for a successful project. **(9 marks)**

b) Describe in general terms the differences between RAD and structured development methodologies. **(8 marks)**

c) Choose one of the development approaches described and give reasons why this would be suitable for developing a system for customers purchasing via the Internet. **(8 marks)**

5. An enthusiastic new Finance Director maintains that all IT functions should be outsourced to save costs and improve service. The other directors are not entirely convinced of this and have asked you to write a report to:

a) Briefly describe the advantages and disadvantages of outsourcing all IT functions. **(11 marks)**

b) Discuss how outsourcing may fundamentally affect the relationship between the business users and their new IT service providers. **(7 marks)**

c) Consider the implications if all IT functions are outsourced. **(7 marks)**