

THE BRITISH COMPUTER SOCIETY
THE BCS PROFESSIONAL EXAMINATIONS
Professional Graduate Diploma
MANAGEMENT INFORMATION SYSTEMS

3rd May 2006, 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.
 - a) Describe and evaluate both the traditional and Rapid Application Development (RAD) approaches to the development of Management Information Systems (MIS). **(15 marks)**
 - b) Compare the skills and knowledge expected of an MIS project manager in charge of a traditional development and an MIS project manager in charge of a RAD development. **(10 marks)**

2. A manufacturing and distribution business uses four legacy systems. Although each system operates reliably, the information contained is not available to all departments. Also, users frequently need to access two or more systems to obtain the information required and continued use of these inefficient systems has made staff resentful. The management realise the need to improve accessibility to the corporate information, but have insufficient funds for major redevelopment.

You have been engaged as a consultant and are required to write a report to describe how a new Management Information System (MIS) could make the legacy information available to staff, customers and suppliers.
 - a) Explain how data warehousing could be used to combine the information from the four legacy systems and state the benefits that could arise. Describe any problems that may be encountered. **(7 marks)**
 - b) Describe two different ways in which the information could be made available to the internal staff. **(6 marks)**
 - c) How could extranet and internet technology be used to make the information available to suppliers and customers? **(6 marks)**
 - d) Explain the various security measures that should be incorporated in the new MIS. **(6 marks)**

Turn over]

3. A medium-sized company, which specialises in the manufacture of high quality, contemporary office furniture, wants a computerised system to support its collection and utilisation of customer information. The company has a small yet capable IT department (comprising 6 staff members) which has successfully performed fairly simple database application development work. Where large-scale IT application development has been required, the company has typically outsourced the work to one or more external contractors. The IT department is extremely busy with maintenance work on existing in-house application systems.

The company has three options for acquiring a suitable customer information management system to run on the existing hardware platform:

1. To purchase an off-the-shelf package to manage customer information.
2. To develop in-house a bespoke system to manage customer information.
3. To outsource the development of a bespoke system to manage customer information.

Select and justify which of the three options you think is most suited to the company. Your answer should include a discussion of the advantages and disadvantages of each option. State any assumptions you make regarding company operations and needs within your answer. **(25 marks)**

4. Management Information Systems (MIS) can provide management support for all activities within a product's supply chain, from raw materials procurement through to the finished product's distribution to, and use by, its customers.

- a) With suitable illustrative examples, describe the following MIS and how they can be used to support product supply chain management.
 - i) Decision Support Systems (DSS). **(10 marks)**
 - ii) Executive Information Systems (EIS). **(10 marks)**
- b) Briefly explain the benefits and potential problems of making DSS and EIS capabilities available via a corporate Intranet. **(5 marks)**

5. A Management Information System (MIS) should either complement an organisation's existing structure and processes, or enable the realisation of planned organisational changes.

- a) With supporting examples, discuss what is meant by the above statement. **(9 marks)**
- b) Describe how Strategic Information Systems Planning (SISP) activities enable an organisation to align its MIS with its business strategy. Include a brief overview of what SISP entails as part of your answer. **(16 marks)**