



INFORMATICS

OXFORD BROOKES UNIVERSITY

BACHELOR OF SCIENCE (HONS) COMPUTING AND INFORMATION SYSTEMS

BACHELOR OF SCIENCE (HONS) INFORMATION SYSTEMS AND SOFTWARE ENGINEERING

APRIL 2006 EXAMINATION

18th APRIL 2006

M7011: MANAGEMENT INFORMATION SYSTEMS

TIME : 2 Hours + 10 Minutes Reading

NUMBER OF PAGES : 1 Cover Sheet and 8 pages of Questions

Φ INSTRUCTIONS:

- θ **ALL QUESTIONS** in **SECTION A** are **COMPULSORY** and choose any **THREE** questions in **SECTION B**.
- θ Section A carries 25 marks.
- θ All questions in Section B carry 25 marks each.
- θ Please start every question on a new page.
- θ Answers will not be marked if they are illegible.
- θ Enter the question numbers (in the order you have attempted) in the boxes provided in the answer script.
- θ Write your **INDEX NUMBER** and **MODULE NUMBER** on the cover page of the answer script.

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SECTION A

(Answer ALL questions in this section)

QUESTION 1

For parts 1a - 1j, write the **Question. No.** and the most suitable answer (e.g. a or b or c or d) only.

[Question 1a to 1j: 1 Mark Each]

- a) When you use information technology to help your company, it means you are collecting and analyzing:
- a. Employee salaries
 - b. Data on customers and employees
 - c. Financial status of customers
 - d. Employee benefits
- b) Business-to-business e-commerce has the potential to be substantially more important than:
- a. B2C e-commerce
 - b. Traditional businesses
 - c. Auction sites
 - d. Local firms
- c) Because many transactions involve outside organizations, mistakes can be caught by:
- a. Comparing summary reports
 - b. Sharing data
 - c. Reading financial reports
 - d. Reading management reports
- d) To hold down transaction costs, it is simpler to establish:
- a. Long-term relationships with a large number of companies
 - b. Long-term relationships with a limited number of companies
 - c. Short-term relationships with a limited number of companies
 - d. Short-term relationships with a large number of companies

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- e) Most OLAP tools depict the data as:
 - a. One-dimensional plot
 - b. Two-dimensional plot
 - c. 3 D cubes
 - d. Multidimensional cubes

- f) Companies collect hundreds of pieces of data for each employee:
 - a. For making decisions about cafeteria-style benefits
 - b. Some for management purposes, others because they are required by law
 - c. For making decisions about employee benefits
 - d. For making decisions about employee work schedules

- g) Systems implementation involves:
 - a. Splitting the new system as a collection of modules or subsystems
 - b. Designing the new system
 - c. Generating complete technical specifications for the new system
 - d. Installation and changeover from the previous system to the new one, including training users and making adjustments to the system

- h) A knowledge base consists of:
 - a. Data, inference engine, and database
 - b. Data, rules, logic, and links among data elements
 - c. Input data, database, and inference engine
 - d. Output data, inference engine and processing rules

- i) If one of the most important steps of developing a solution is to break the problem into smaller pieces, it is well to remember that:
 - a. Data files, if kept small, are easier to understand and work with
 - b. The data are a major piece, and a DBMS makes tracking data much easier
 - c. The more data there are available, the easier it is to define the pieces of the problem
 - d. Programmers and MIS personnel are trained to handle such problems

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- j) The three most difficult problems with protecting transaction and accounting data are:
- a. Employee mistakes, unauthorized access from outside suppliers, loss of information through insufficient backup
 - b. Employee mistakes, unauthorized modification, insufficient backup
 - c. Unauthorized disclosure of information, unauthorized modification, unauthorized withholding of information
 - d. Unauthorized access from outside suppliers, sequestered information, careless use of password

QUESTION 2

For parts 2a – 2e, write the **Question. No.** and **the most suitable answer** (e.g. a or b) only.

[Question 2a to 2e: 1 Mark Each]

- a) Entrepreneurship, the development of new firms, is an idea that floats in the minds of many businesspeople.
- a. TRUE b. FALSE
- b) The amount of data integration needed in a company often depends on the financial structure of the firm.
- a. TRUE b. FALSE
- c) If nothing else, history has shown that technological change is inevitable.
- a. TRUE b. FALSE
- d) A problem with the SDLC method is that it is hard to coordinate and control the various programmers and analysts, so efforts are duplicated.
- a. TRUE b. FALSE
- e) An operations engineer could model a machine as a mathematical formula that cannot convert raw materials and labour into products.
- a. TRUE b. FALSE

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QUESTION 3

Explain the following (with around 50 words each) **[5 marks each]**

- a) Centralized data processing
- b) SQL Server

[TOTAL MARKS FOR QUESTION 3: 10 MARKS]

[TOTAL MARKS FOR SECTION A: 25 MARKS]

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SECTION B**(Answer any THREE questions)****QUESTION 4**

Answer the questions (Qn. 4 a to Qn. 4 b) based on the application scenario.

“Avondale Shipping Company is a small owner-operated firm that provide wrapping, shipping and other services for individuals and businesses that wish to ship the packages. The owner, Val Prior, hires part-time help for peak hours during the week and for the holiday seasons. She has two computers. One is an old PC that is no longer used and that has a book value of zero. The other is a new PC that cost \$3500, including the software, installation and peripherals. Val Prior stores the old PC in a closet and does not plan to replace it. However, she estimates that the cost of replacing the new PC would be \$4,400, including installing the hardware, software and replacing the data. Val Prior currently has deadbolt locks on her doors, uses an alarm system connected to the local police station, has bolted down the microcomputer to a desk in an interior, locked room, makes archive copies of her data, and takes archive copies to her home each night. Two robberies have occurred in the past year in the strip shopping centre in which Avondale Shipping Company is located. Val Prior estimates that the probability of the loss of the computer systems from theft is 1 in 20. She also estimates that if the computer were stolen, she could carry on business for a day or two without loss until the new system was required and installed.”

- a) Explain any other 6 additional controls that Val Prior might consider to reduce the potential risk from the threat of theft and unauthorised access? [13 marks]

- b) Explain any other 6 threats than theft might Val Prior consider? [12 marks]

[TOTAL MARKS FOR QUESTION 4: 25 MARKS]

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QUESTION 5

a) Identify and describe four components of a DSS (Decision Support Systems) with appropriate diagram.

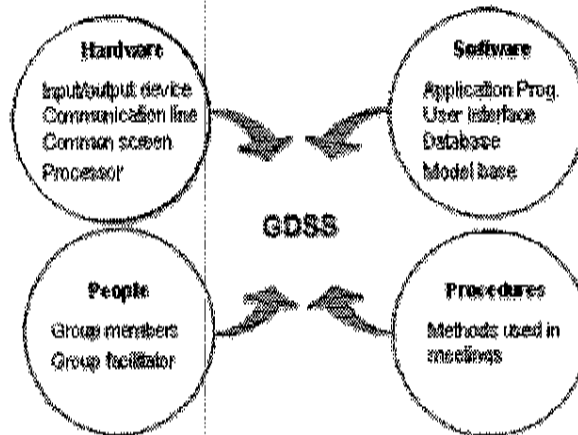
[10 marks]

Figure 1. Components of Group Decision Support System (GDSS) (DeSanctis & Gallupe, 1987)

b) What is an Enterprise system and how can it integrate the key business processes of an organization?

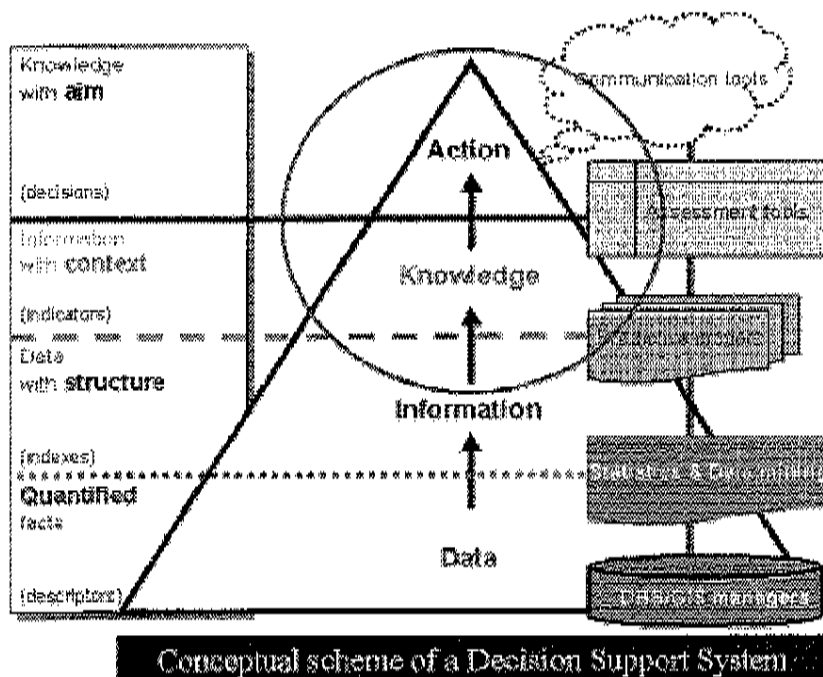
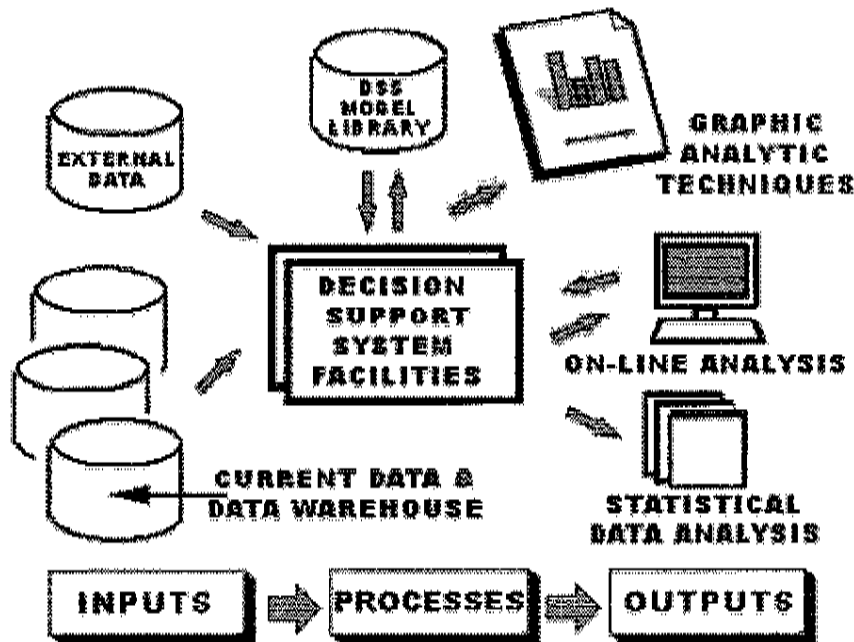
[15 marks]**[TOTAL MARKS FOR QUESTION 5: 25 MARKS]**

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QUESTION 6

- a) Discuss how data warehouse is used in Decision Support System (DSS) and Executive Support System (ESS) to solve the performance problem of using traditional relational database systems.

[10 marks]



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b) Disaster recovery plans are often complex and take considerable time. As a MIS Manager you are planning a disaster recovery plan for the IS department. What are the components of successful disaster plan you may think of? Discuss.

[15 marks]

[TOTAL MARKS FOR QUESTION 6: 25 MARKS]

QUESTION 7

a) Distinguish the difference between physical and logical risk in the context of information systems and for each risk category illustrate with examples.

[4 marks]

b) List and discuss the four generic strategies to handle risk.

[8 marks]

c) Define the terms “Outsourcing” and “Vendor Management”.

[5 marks]

d) What are the objectives of a recruiting system? How do various information systems support these objectives.

[8 marks]

[TOTAL MARKS FOR QUESTION 7: 25 MARKS]

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