



OXFORD BROOKES UNIVERSITY

BACHELOR OF SCIENCE (HONS) COMPUTING
AND INFORMATION SYSTEMS
BACHELOR OF SCIENCE (HONS) INFORMATION SYSTEMS AND
SOFTWARE ENGINEERING

APRIL 2005 EXAMINATION

19th APRIL 2005

M7011 MANAGEMENT INFORMATION SYSTEMS

TIME : 2 Hours + 10 Minutes Reading

NUMBER OF PAGES : 1 Cover Sheet and 7 pages of Questions

INSTRUCTIONS:

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

0110/0170/1Q/1 - APRIL 2005

SECTION A

(Answer ALL questions in this section)

QUESTION 1

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

For part 1g, write the **Question No.** and the most suitable answer (there may be more than one).

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

1a) Summary transaction data, high-volume data, and simple models are information inputs characteristic of a(n):

- a. DSS.
- b. MIS.
- c. ESS.
- d. TPS.

1b) Which is not fall into broadband category:

- a. FDDI
- b. SONET.
- c. ISDN.
- d. SMDS.

1c) A competitive strategy for developing new market niches for specialized products or services where a business can compete in the target area better than its competitors describes:

- a. product differentiation.
- b. focused differentiation.
- c. market segmentation.
- d. data-mining.

1d) Choosing the first available alternative to move closer toward the ultimate goal instead of searching for all alternatives and consequences defines:

- a. muddling through.
- b. satisficing.
- c. bounded rationality.
- d. Speculative decision making.

1e) The analysis of large pools of data to find patterns and rules that can be used to guide decision making and predict future behaviour defines:

- a. data-mining.
- b. data concatenation.
- c. normalisation.
- d. data warehousing.

1f) The way a doctor diagnoses an illness is often:

- a. a structured task.
- b. a semi-structured task.
- c. an unstructured task.
- d. none of the above.

1g) Risk of DSS are :

- a. Lack of quality assurance.
- b. Lack of data security.
- c. Failure of specifies correct requirements.
- d. All of them above.

1h) The electronic transmission of business data such as purchase orders and invoices from one firm's computer to that of another firm is known as:

- a. electronic data transmission.
- b. computerised data transmission.
- c. electronic data interchange.
- d. computerised data interchange.

1i) Which one does not fall into machine learning method:

- a. Neural computing.
- b. Conductive learning.
- c. Inductive learning.
- d. Genetic algorithm.

1j) A course of action used to recover from occurrences that could shut down or do major harm to information systems called a:

- a. recovery plan.
- b. hot site plan.
- c. back up plan.
- d. disaster plan.

[TOTAL MARKS FOR QUESTION 1: 10 MARKS]

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]

2a) The sentiments and attitudes of workers in the organisation are one of the most important central organisation factor.

- a. TRUE
- b. FALSE

2b) A group decision support system (GDSS) is an interactive computer-based system that facilitates the solution of semistructured Problem

- a. TRUE
- b. FALSE

2c) From an economic standpoint, information systems can be viewed as a factor of production that may be substituted for labour.

- a. TRUE
- b. FALSE

2d) Neural network does not do parallel processing.

- a. TRUE
- b. FALSE

2e) MIS supports the decision stage of decision making.

- a. TRUE
- b. FALSE

[TOTAL MARKS FOR QUESTION 2: 5 MARKS]

QUESTION 3

- Explain the following (Minimum 4 to 5 sentences each):- [Maximum 10 marks]
- 3 a) Simplex, Half-duplex and Full-duplex Transmission. [3 marks]
- 3 b) Centralized data processing. [3 marks]
- 3 c) Replicated database and Partitioned database. [4 marks]

[TOTAL MARKS FOR QUESTION 3: 10 MARKS]

[TOTAL MARKS FOR SECTION A: 25 MARKS]

Section B

(Answer any THREE questions)

QUESTION 4

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

"Avondale Shipping Company is a small owner – operated firm that provides 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 times 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 store doors, uses an alarm system connected to the local police station, has booted down the microcomputer to a desk in an interior, locked room, makes archive copies of her data, and take archive copies to her home each night. Two robberies have occurred in the last 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 acquired and installed."

Source: "Management Information System in Practice", Randolph 1st edition, New York, 1997.

- 4 a) Explain any other 6 additional controls that Val Prior might consider to reduce the potential risk from the threat? [12 marks]
- 4 b) Explain any other 6 threats that theft might Val Prior consider? [12 marks]
- 4 c) Define the term "Trojan"? [1 marks]

[TOTAL MARKS FOR QUESTION 4: 25 MARKS]

QUESTION 5

- 5 a) Explain briefly how the responsibilities of the Chief Information Officer (CIO) has changed over the last two decades. Discuss three changes. [6 marks]
- 5 b) If you were a CIO involved in recruiting a Systems Executive, which three characteristics would you consider a must before selecting the candidate? Why? [9 marks]
- 5 c) With the changing trends in the computer environment, such as remote computing, development in user friendly software tools, discuss with justification on two organisational issues that the IS Department has to address. [5 marks]
- 5 d) Provide two examples on how various online industries could make use of web mining techniques. [5 marks]

[TOTAL MARKS FOR QUESTION 5: 25 MARKS]

QUESTION 6

- 6 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]
- 6 b) List and discuss the four generic strategies to handle risk. [8 marks]
- 6 c) Assume that an accidental cut in power supply has affected the operations in the bank where you are working as an IS Manager. It is anticipated that it would take at least 24 hours before the power is restored by the authority, Power Supply.
- Explain in detail how you would have planned for this disaster and what precautions you would have taken to ensure the smooth operations of the plan for a disaster situation such as this. [8 marks]
- 6 d) Define the terms ' Outsourcing' and ' Vendor Management' . [5 marks]

[TOTAL MARKS FOR QUESTION 6: 25 MARKS]

QUESTION 7

- 7 a) Globe plc is an industrial company with 35 factories located in various parts of the country. The company has a good name in its industry and is a recognised leader in the development of industrial fittings. Turnover for the last year was \$400 million.

Globe's head office is based in Jarrow and is fairly small, since it gives a great deal of autonomy to its operating units. Each operating unit has evolved its own information systems strategy.

Recently, there is much discussion of the topic of adopting a centralised approach to the management structure. It is thought that centralisation might result in economies of scale and therefore cost reduction.

Critically analyse the situation and write a report discussing your view on the issue. Your report should include the definition of the terms centralisation/decentralisation, the pros and cons of each of the approaches in the context of Globe plc, your recommendation and justification.

[20 marks]

- 7 b) Briefly describe the term ' EndUser Computing' (EUC). [1 marks]
- 7 c) Discuss two factors that have contributed to the increase in EUC activity in most organisations. [4 marks]

[TOTAL MARKS FOR QUESTION 7: 25 MARKS]

-END OF PAPER-