



OXFORD BROOKES UNIVERSITY  
BACHELOR OF SCIENCE (HONS)

DECEMBER 2002 EXAMINATION

10<sup>th</sup> DECEMBER 2002

M7011: MANAGEMENT INFORMATION SYSTEMS

TIME: 2 HOURS + 10 MINUTES READING TIME

**INSTRUCTIONS:**

- ☐ All Questions in Section A is Compulsory and choose any 3 questions in Section B.
- ☐ Section A carry 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.

M7011 – 10<sup>th</sup> December 2002

**SECTION A**  
**ANSWER ALL QUESTIONS**

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

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

**QUESTION 1:**

a. The system is an integrated set of : [choose more than one ]

- a. Components
- b. Entities.
- c. Interfaces.
- d. All of the above.

b. System entropy corresponds to:

- a. Order
- b. A state that occurs without maintenance.
- c. Procedure.
- d. System Test.

c. Fast Packet technologies transfer rate of data packets per second at least :

- a. 10,000 packets/sec.
- b. 30,000 packets/sec.
- c. 50,000 packets/sec.
- d. 70,000 packets/sec.

M7011 - 10<sup>th</sup> December 2002

- d. SMDS (Switched multimedia data services) is used at speeds between :
- 2 mbps and 45 mbps
  - 1.544 mbps and 47 mbps.
  - 1.544 mbps and 45 mbps.
  - 2 mbps and 47 mbps.
- e. Which one is not part of disciplines of the learning organization :
- Team learning.
  - System thinking.
  - Mental methods.
  - Ethics.
- f. Which one is disadvantage of decentralised data processing :
- Duplication of staff and effort.
  - Local autonomy and user control.
  - Local systems analysts more attuned to local needs.
  - Consistent with decentralise corporate structure.
- g. ESS (Executive support system) have following characteristics [choose more than one] :
- Technology evolving.
  - Timeliness, accuracy.
  - Integrated many sources of data.
  - High level, aggregated and often standardisation.
- h. An ANN (Artificial Neural Network) learns from its experience. The usual process of learning involves several steps. How many steps there are:
- 2.
  - 3.
  - 4.
  - 5.

M7011 - 10<sup>th</sup> December 2002

- i. Which bandwidth is not T4 category bandwidth for Europe:
- 139.263 mbps.
  - 139.264 mbps.
  - 139.265 mbps.
  - 139.266 mbps.
- j. ES (Expert systems) specialist often called :
- Expert system analyst (ESA).
  - Knowledge engineer.
  - Expert system programmer.
  - Knowledge builder.

[1 MARK EACH]

## QUESTION 2:

- a. A 20-fiber cable can provide exactly nine full-duplex transmission channels.  
a. TRUE                      b. FALSE
- b. A group decision support system (GDSS) is an interactive computer-based system that facilitates the solution of semistructured problems.  
a. TRUE                      b. FALSE
- c. SONET has two 64 kbps channels:  
a. TRUE                      b. FALSE
- d. There are two types of strategies for decision making:  
a. TRUE                      b. FALSE
- e. The data transfer speed for SONET is 5 gigabyte per second.  
a. TRUE                      b. FALSE

{1 MARK EACH}

## QUESTION 3:

Explain the following (Minimum 4 to 5 sentences each):

- a. Artificial vision.  
b. Microwave Transmission

{10 MARKS}  
{TOTAL: 25 MARKS}

## SECTION B

ANSWER ANY 3 QUESTIONS

## QUESTION 4:

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

Triton Clothing Company is headquartered in a city on the West Coast. The firm produces highly stylish models of men's and women's denim and khaki western pants for distribution to clothing wholesalers and retailers throughout the western states. Triton maintains clothing manufacturing plants in three of these western states. Terry Burroughs has just assumed the post of production manager at Triton's Vesta plant. Formerly he had been assistant production manager at Triton's manager at Triton's Vesta plant. Formerly he had been assistant production manager at Triton's plant at Sterling. Burroughs was moved to the post to see if the Vesta-plant productivity and profitability can be revived after several years of decline. Top management is not quite certain what the production problems at Vesta are. However, the plant has not met the production goals for the last two years, and management is hoping that a new broom will sweep clean.

When Burroughs first arrived at the Vesta plant, he decided to ask some of his plant managerial and supervisory personnel what they believe are the strengths and weakness of Vesta's production operations. In this way he hoped to gain insight into the nature of Vesta's production operations and to isolate problems that he could prioritise and then attack. Excerpts of some of the meetings follow.

Darlow Pruitt, the purchasing manager, complained that the purchasing department has been asked to use expeditors too often to rush the delivery of raw materials. He feels that his department is not given sufficient warning about the status of raw materials to allow it to obtain the goods on time through regular channels. Pruitt complains that he does not have enough expeditors to ensure that purchase orders of the raw materials that have been delayed by suppliers are filled on time to meet production schedules.

Pruitt also feels that production delays have been caused by too many stock outs for raw materials in the past. He thinks that these stock outs have occurred because there has been too much pressure to reduce the inventories as a means of decreasing manufacturing cost. The result of the stock outs, as far as he is concerned, is that expeditors must deal with raw materials acquisition in a crisis mode.

M7011 - 10<sup>th</sup> December 2002

Leann Grant, supervisor of quality control, says that she does not have enough inspectors to ensure that the quality standards for raw materials and finished goods have been met. She notes that the variable quality of raw materials has caused too many delays in the production processes and this variability has also produced a high level of rejections of finished goods.

Bergon Trout, warehouse manager, complains that he lacks enough stock clerks to manage the inventory of raw materials, parts and finished goods the company maintains. He reports a number of instances in which raw materials that have been reduced to the reorder point were not identified and purchase orders for these materials were not made out. Trout is especially annoyed that even standard raw materials from long-term suppliers are allowed to drop below the reorder point.

Toulow Fenton, a shop-floor supervisor, charges that there are too many breakdowns in equipment- breakdowns that then delay production schedules. Fenton believes that the workers are reasonably satisfied with their work and are experienced at their jobs. He argues that equipment, not labour, is causing the delays.

Ruby Kent, the finance manager, thinks that too much money is being tied up in inventory and that these high inventories generate higher inventory taxes that must be paid to the local community.

Source: *Booke, K., "TCC productivity takes off with imaging"* The Industry Standard, June 14, 2000, p.116.

- a. Given the data obtained in these interviews, what production problems seem to be occurring at the plant?

[6 MARKS]

- b. How do you think these problems ought to be prioritised?

[6 MARKS]

- c. What information systems should be considered to solve the problems?

[6 MARKS]

- d. What software do you recommend that Burroughs consider to assist in solving these problems?

[7 MARKS]

[TOTAL: 25 MARKS]

M7011 - 10<sup>th</sup> December 2002

## QUESTION 5:

- a. What is Distributed systems. Discuss the problems for implementing the Distributed Systems that can be concerned for MISAT managers. (at least 5 problems).

[13 MARKS]

- b. What do you understand by half-duplex and full-duplex transmission.

[2 MARKS]

- c. Identify and describe four components of DSS (Decision support systems) with appropriate diagram.

[10 MARKS]

[TOTAL: 25 MARKS]

## QUESTION 6:

- a. DSS (Decision support systems) provides support for decision makers mainly in semi structured and unstructured situations by bringing together human judgement and computerised information. Discuss their characteristics and capabilities. (Any 5)

[15 MARKS]

- b. Identify and describe 5 critical success factors of GDSS (Group decision support system).

[5 MARKS]

- c. What are the major areas where Expert Systems might be used?

[7 MARKS]

[TOTAL: 25 MARKS]

## QUESTION 7:

- a. Issues and concerns pertaining to security and threat typically permeate any manager's job, especially when information systems are involved. Controls are countermeasures to threat. Every data centres need to have some control. Describe some common controls types of control. (Any 3)

[9 MARKS]

- b. A number of threats are common to computer systems and deserve the careful attention of MIS managers. Describe some of the common threats that you may think of as a MIS manager. (Any methods)

[16 MARKS]

[TOTAL: 25 MARKS]

--END OF PAPER--