



INFORMATICS

OXFORD BROOKES UNIVERSITY

AUGUST 2003 EXAMINATION

12th AUGUST 2003

M7011 Management Information Systems

TIME : 2 HOURS + 10 MINUTES READING
NUMBER OF PAGES : 1 Cover Sheet and 6 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.

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SECTION A – Answer ALL Questions

QUESTION 1

For parts 1a - 1f and 1h - 1j, write the Question No. and the 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 Question 1j → 1 mark each)

(a) The characteristics of useful Information System is:

- i. Accurate
- ii. Current.
- iii. Economical
- iv. All of the above.

(b) Which is not fall into broadband category?

- i. FDDI
- ii. SONET.
- iii. ISDN.
- iv. SMDS.

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

- i. 10,000 packets/sec.
- ii. 30,000 packets/sec.
- iii. 50,000 packets/sec.
- iv. 70,000 packets/sec.

(d) Non-switched lines offer users several cost alternatives. The alternatives are

- i. Flat rate.
- ii. Measured rate.
- iii. Tapered rate
- iv. All of the above.

Please turn over

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SECTION B – Answer Any THREE Questions**QUESTION 4**

(Answer the questions 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 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.

Barlow 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.

Leaven 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.

Clayton 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: Brooke, K., "TCC productivity takes off with imaging" The Industry Standard, June 1999, p.116.

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QUESTION 4 (Continued)

- (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]

QUESTION 5

- (a) What is Distributed systems? Discuss the reasons for implementing the Distributed Systems. (At least 5 reasons).

(13 marks)

- (b) Threats are common and can bring disasters for Information Systems. As a MIS (Management Information System) manager what are the threats you can consider of?

(12 marks)

[Total: 25 Marks]

QUESTION 6

- (a) State three basic objectives of Information Security

(3 marks)

- (b) Discuss the major benefits of DSS (Decision Support System).

(10 marks)

- (c) What are the common controls can be applied to information system?

(12 marks)

[Total: 25 Marks]

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- (c) New form of distributed processing systems often adopted by many organisations now days often called:
- Client/Server computing
 - Decentralized systems
 - Centralized systems
 - Distributed systems.
- (f) Which one is the characteristic of MIS (Management Information System)?
- Detailed, record oriented performance, reliability critical.
 - Summarized and standardized reports.
 - High level, aggregated.
 - All of the above.
- (g) The applications using GPRS are [choose more than one]:
- MMS (Multimedia Messages Service).
 - SMS (Short Message Service).
 - WAP (Wireless Application Protocol).
 - JAVA.
- (h) Which one is not part of dedicated Wireless WAN?
- CDPD.
 - GSM.
 - Metricoms Ricochet.
 - ARDIS and RAM mobile data.
- (i) Which one does not fall into machine learning method?
- Neural computing.
 - Conductive learning.
 - Inductive learning.
 - Genetic algorithm.

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- (j) The stages of building an Expert system is :
- Identification, development, implementation.
 - Identification, formalization, implementation.
 - Identification, development, formalization, implementation.
 - None of the above.

QUESTION 2

(Question 2a to Question 2e → 1 mark each)

- (a) AI (Artificial Intelligence) does not offer ease of duplication and dissemination.
- TRUE
 - FALSE
- (b) The purpose of the ESs (Expert System) is to replicate the unstructured and undocumented knowledge of the experts and put it at the disposal of others.
- TRUE
 - FALSE
- (c) X.25 works at the speed of 56kbs.
- TRUE
 - FALSE
- (d) Knowledge management is the part of DSS (Decision Support System) components.
- TRUE
 - FALSE
- (e) Atomic transaction does not ensure updating of all appropriate files.
- TRUE
 - FALSE

QUESTION 3

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

(Maximum 10 marks)

- (a) Group Decision Support System
- (b) Fast Packet Technologies

{Total: 25 Marks}

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QUESTION 7

(a) Identify and describe at least five business applications for which data communications Systems are appropriate.

(10 marks)

(b) List and describe five types of data validation controls.

(10 marks)

(c) Compare and contrast between Replicated Database and Partitioned Database in Distributed system

(5 marks)

{Total: 25 Marks}

- END OF PAPER -