



OXFORD BROOKES UNIVERSITY
BACHELOR OF SCIENCE (HONS)

APRIL 2002 EXAMINATION

16 APRIL 2002

M7011 MANAGEMENT INFORMATION SYSTEMS

TIME: 2 HOURS + 10 MINUTES READING

INSTRUCTIONS:

- ☐ All Questions in Section A are Compulsory and choose any 3 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.

SECTION A

(Answer all questions)

(Total: 25 Marks)

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

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

(Qn. No. 1a to Qn. No. 1j → 1 mark each.)

1a) The disadvantage of asynchronous transmission is:

- a. Slow
- b. Expensive hardware.
- c. Overhead.
- d. Send data byte level instead of bit level.

1b) What is the standard for describing interactive three dimensional screens delivered across the internet:

- a. Flash
- b. VRML.
- c. Macromedia.
- d. XML.

1c) Rules for successful website is:

- a. Attractive.
- b. Useful.
- c. Using company jargon.
- d. Build many layers.

1d) Special applications to provide information on multiple dimensions for management to make decision called:

- a. Active representation.
- b. DSS.
- c. EIS.
- d. OLAP.

Please turn over.

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1e) Organizations that wish to give their employees independence without losing centralized control of their ISs (Information System) prefer to rely on:

- a. Decentralized architecture.
- b. Distributed architecture.
- c. Centralized architecture.
- d. None of the above.

1f) According to Herbert Simon, decision making process have three phase, they are:

- a. Planning, organizing, decide.
- b. Intelligence, design, choice.
- c. Planning, alternative, decide.
- d. Fact, analysis, choice.

1g) Which one do you think are the sub fields of AI (Artificial Intelligence) [choose more than one]:

- a. Genetic algorithms.
- b. Fuzzy logic.
- c. NLP.
- d. Automation.

1h) How many groups of people are involved for the construction of expert systems:

- a. 2.
- b. 3.
- c. 4.
- d. 5.

1i) One of the important factors in IS (Information System) tactical planning is:

- a. Scalability.
- b. Structured planning.
- c. Unstructured planning.
- d. None of the above.

Please turn over

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1j) To prevent wasting many months of efforts and thousands of dollars, most of the Organizations conduct a study to determine whether the solution is suitable to the particular Project called:

- a. Problem definition.
- b. Feasibility study.
- c. System design.
- d. None of the above.

(Qn. No.2a to Qn. No.2e → 1 mark each.)

2a) In knowledge based organization, Chief Knowledge Officer often known as Chief learning officer.

- a. TRUE
- b. FALSE

2b) Timely responsiveness of IS (Information System) units to business demand is great advantage of Centralized IS management.

- a. TRUE
- b. FALSE

2c) Prototyping is an efficient approach to develop when a system is small, deals with unstructured problems and user cannot specify all the requirements.

- a. TRUE
- b. FALSE

2d) In order to achieve successful IS planning, top management must understand that it is a complex resource.

- a. TRUE
- b. FALSE

2e) The data transfer speed for T1 is 1.544mbps.

- a. TRUE
- b. FALSE

3 Explain the following (Minimum 4 to 5 sentences each) :- [Maximum 10 marks]

- 3 a) Inference engine.
- 3 b) ERP (Enterprise Resource Planning)
- 3 c) Star topology

Please turn over

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Section B

(Answer any 3 questions)

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

Charles Schwab & Co, based in San Francisco, California, is the largest discount brokerage in the United States. To keep pace with its rapidly expanding business, Schwab has decided to scrap its Mainframe centred computing systems and replace them with client/server systems. As described by Elisabeth Horvitt then IT manager, Schwab expects to have 60 percents of its applications on client/server machines by 1996. So that it can more easily cope with the fluctuating transactions volumes caused by the volatile stock market.

Schwab has chosen the open software foundations protocols, believing that by taking a more open and non-proprietary approach, they can better control computer-operating costs. Schwab was one of the first large firms to fully commit OSF, in mid 1992.

The client/server platform is based on OSF/1; the hardware is a mix of IBM, Digital Equipment Corporation and Hewlett Packard. The transaction processing architecture is OSF's DCE, which will tie the applications across multi-vendor systems. This architecture uses "remote procedure call".

Barry Nance (Technical Consultant) calls remoter procedure calls (RPCs), the tools of choice for building client/server systems. With RPCs, a "call" statement from one application requesting work from another application looks like a standard subroutine call; however, the second application can be located on any type of machine. The fact that the client and server modules execute on different machines is transparent to the application, says Nance. The RPC-generated code creates a communication session between the two computers and then "sends" request and later "receives" the answer. The generated code manages the entire communication session, taking that burden off the application.

Schwab need to use high bandwidth communications backbone running at least 100 mbps between its three San Francisco buildings. Routers to interconnect the LANs in the three buildings use TPC/IP and Novell protocols. Schwab expects eventually to be able to offer "bandwidth on demand" - to its remote offices.

One of the most important components of the Schwab systems, is the network management. Unless the company can manage the entire day-to-day network operations from a single (or a few) network management workstation, the system will not be reliable. Schwab has started by looking some network management tools to manage their entire network operations.

To reduce the risks of adopting these OSF standards before they can have been formally defined, Schwab has joined the open software Foundations, so that it gains access to some OSF products before they are commercially available, says Horvitt. Schwab is also working with firms outside the brokerage industry that are tying their mainframes to their future Unix networks.

Please answer

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In addition to allowing Schwab to more easily expand, the new system should permit the company to reengineer its business. One eighteen-persons business team, for example, is analyzing current work process in various Schwab businesses, looking for ways to combine them in more logical, efficient ways. It appears that this redesign will involve moving applications closer to the users, such as placing the centrally handled mutual funds business in the branch offices - a move made possible by Schwab's OSF-based systems.

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

QUESTION 4

Qn. 4 a) What kind of computer processing would be suitable for Schwab & Co. Justify your answer? [5 Marks]

Qn. 4 b) what is the benefit of OSF and how it can help this company? [5 Marks]

Qn. 4 c) Schwab using multi-vendor systems. What do you call this kind of Information Systems? [5 Marks]

Qn. 4 d) What kind of telecommunications bandwidth Schwab requires to connect to their remote offices. Define any Network Management tools that may applicable to monitor their entire network Operations. [5 Marks]

Qn. 4 e) How does this new system change their business. [5 marks]

QUESTION 5

Qn. 5 a) What is DSS? Discuss 6 Benefits of Decision Support system. [15 Marks]

Qn. 5 b) Information system is costly to purchase, deploy and maintain. Information System effectiveness continues to occupy the highest priority. Define the Framework for MIS Effectiveness? [10 Marks]

Please answer

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QUESTION 6

Qn. 6 a) One of the issue in information System development is how to assess the risk.

Various management strategies could be followed to minimise the project risks.

Based on the above statements discuss the following points:

[12 Marks]

- i) External Integration Tools
- ii) Internal Integration Tools
- iii) Formula Planning Tools
- iv) Formula Control Tools

Qn. 6 b) Differentiate between EIS and MIS.

[7 Marks]

Qn. 6 c) What is Neural Network? Explain with proper example.

[6 Marks]

QUESTION 7

Qn. 7a) Disaster recovery plans are often complex and take considerable time. As a MIS

Manager you are planning a disaster recovery plan for IS department.

What are the components of successful disaster plan you may think of?

Discuss.

[15 Marks]

Qn. 7b) "Controlling resources provide some degree of security to Information system department. Discuss some Data centre resource controls.

[10 marks]

- END OF PAPER -