

UNIVERSITI SAINS MALAYSIA

Second Semester Examination  
Academic Session 1999/2000

February 2000

**CSI511 - Management Information Systems**

Duration : [3 hours]

---

**INSTRUCTION TO CANDIDATES:**

- Please ensure that this examination paper contains **FIVE** questions in **FOUR** printed pages before you start the examination.
  - Answer any **FOUR** questions.
  - You can choose to answer either in Bahasa Malaysia or English.
- 

ENGLISH VERSION OF THE QUESTION PAPER

Feb 02

1. (a) Describe the four (4) levels of an organization hierarchy, and the types of information systems that serve at each level.  
(20/100)
- (b) MIS author and consultant Peter Keen says: "We have learned over the past decade that it is not technology that creates a competitive edge, but the management process that exploits technology". What does he mean? Do you agree or disagree. Why?  
(40/100)
- (c) Administrative errors in automated systems can occur at many points in the regular processing cycle. Illustrate and explain the critical points in a typical processing cycle where errors could occur.  
(40/100)
2. (a) What are the ethical and social issues raised by Information Systems.  
(20/100)
- (b) Highlight the key technological trends that intensify ethical concerns.  
(30/100)
- (c) (i) Compare and contrast the three (3) main schools of management theory/thinking.  
(30/100)
- (ii) What is the role of modern Information Technology in management processes deploying one or more of the three schools of management thinking?  
(20/100)
3. (a) (i) What is Enterprise Resource Planning (ERP)?  
(10/100)
- (ii) Briefly describe the concept of Total Quality Management (TQM) and specify how TQM and ERP might differ.  
(10/100)
- (iii) In your opinion, how could a set of mere computerized programs/systems be transformed and upgraded to a strategic business solution to meet various challenges of an organization?  
(10/100)

- (b) What are the typical features you look for in a fairly sophisticated computerized system for evaluating several alternatives, which differ on a number of evaluation criteria that must be considered concurrently?  
(30/100)

- (c) It has been claimed that Philip Zimmermann's PGP (Pretty Good Privacy) is the de facto standard program for secure email and file encryption on the Internet. In particular, its public-key cryptography system enables people who have never met before to secure transmitted messages against unauthorized access and add digital signatures to messages to guarantee their authenticity.

Describe how PGP works.

(40/100)

4. (a) Describe the major causes of Information Systems failure.

(40/100)

- (b) Information systems are considered long-term capital investment projects. Normally one or more of the six (6) capital budgeting models are used to evaluate long-term capital investment projects, namely:

- The payback method
- The accounting rate of return on investment (ROI)
- The cost-benefit ratio
- The net present value
- The profitability index
- The internal rate of return (IRR)

Briefly describe any *three* (3) of the capital budgeting models above.

(30/100)

- (c) Suppose you are appointed as the new MIS manager/manageress at a cash-rich company. MIS managers of this company have come and gone for the past few years. Four MIS managers have resigned over the past three years. Although you are offered a very attractive pay package, you soon found out that your immediate functional assistant's salary is much higher than yours and she has been with the company for the past fifteen (15) years: seven (7) years with several user departments and eight (8) years with the MIS department. The suite of information systems maintained at the MIS department has been earning huge revenues for the company for many years. One of the main reasons for the top management to recruit you was your expertise in object-oriented technology (OOT). You have been instructed to reengineer the systems, so that the top management can expect faster response to new systems change requests. Your assistant has however claimed that she has been responding to change requests reasonably fast. In fact she has openly defended herself by saying that the top management is irrational and has been changing their minds far too often.

OOT is supposed to boost software development productivity. As a new MIS manager/manageress, what do you plan to do? It is assumed that you are not going to quit the company for at least the coming five (5) years, because there are other attractions, besides the attractive financial rewards.

(30/100)

5. (a) Why are automated information systems so vulnerable to destruction, error and abuse?  
(20/100)
- (b) Describe briefly the general controls and application controls for information systems.  
(20/100)
- (c) Many Internet electronic payment systems are available on the market, such as CyberCash/Checkfree Wallet, CyberCharge, DigiCash and several others. What management, organization and technology issues would you consider in selecting an Internet payment system?  
(30/100)
- (d) By the year 2005, the state-of-the-art and the level of user acceptance of e-commerce will be very much different. In your opinion, what are the possible changes in international telecommunications network infrastructure, organizational management processes, level of users/customers acceptance, and ill effects of e-commerce?  
(30/100)

-oooOOooo -