本試題共分三部份，答題時請 務必依序 作答。

(I) MULTIPLE-CHOICE QUESTIONS (2 points each)

1. According to the Lewin-Schein change model, new information systems should be implemented during the
   (a) unfreezing stage
   (b) maturity stage
   (c) control stage
   (d) refreezing stage
   (e) moving stage.

2. McKinney and Keen have classified the information-related modes of thought along two dimensions:
   (a) receptive-intuitive.
   (b) information gathering-information evaluation
   (c) preceptive-intuitive.
   (d) preceptive-systematic.
   (e) information preception-information reception.

3. Norms of ethical behavior with respect to information and information systems are the responsibility of
   (a) government
   (b) the individual
   (c) the police department
   (d) the corporate ethics committee
   (e) management.

4. The process of outsourcing involves
   (a) gathering external data for internal corporate use.
   (b) maintaining wide area telecommunication links and local area networks.
   (c) moving part or all of the data center operations to outside contractors.
   (d) utilizing expert systems to perform all MIS functions.
   (e) controlling distribution of information output, such as reports.

5. The external level of a database
   (a) refers to the logical design of the entire database.
   (b) refers to the physical design of the entire database.
   (c) defines various physical views which particular applications may have of a database.
   (d) defines various logical views which particular applications may have of a database.
   (e) refers to the physical design of a particular user's view of the database.

ESSAY QUESTIONS

1. In his "IT-enabled business transformation: from automation to business scope redefinition" (1994), N. Venkatraman argues that "not all order-entry systems are strategic. Similarly, not all airline reservation systems are strategic". It is then concluded that within the level of localized exploitation, no single IT application - however powerful - is strategic in its generic form. (25 points)
   (1) What is meant by "localized exploitation"?
   (2) Are there any "strategic" implications of the order-entry systems and airline reservation systems? Briefly explain why.
   (3) Can you draw some comparison from the question between the two types of business transformation, automation and business scope redefinition, using the following two criteria: (i) degree of change and (ii) range of potential benefits.
   (4) What is your best guess of the author's focal point about the strategic challenge facing today's management?

2. Discuss this proposition: "End-user computing, including the use of packages, will ultimately obviate the need for having MIS units in organizations". (7 points)

(II) CASE STUDY　　　A VICTIM OF ITS OWN SUCCESS

"At the Quaker Oats Company, we recently celebrated our information center's third anniversary in an unusual way. We began tearing it down," says Ronald Brzezinski, corporate vice-president of information systems at the firm.

The center's success in supporting its 1,000 users (or clients, as they were called) surpassed all expectations. The center's charter was to act as an MIS unit dedicated to providing technical support and services to the company's staff as they acquired and began using personal computers. In three years, over 1,200 PCs and over 3,000 software packages were installed on the staff's desktops. Personal productivity software was standardized. Many "power users" were developed, and other were trained to be proficient. Several hundred computerized business solutions, many of them networked, were developed by the clients and are thus now supported and "owned" by them.

As the clients matured into skilled end users, the information center entered the operations phase, assisting with applications maintenance and control through administrative procedures. The information center had now started to duplicate the procedures of the MIS department. Clients were also overwhelming the center with requests for maintenance-oriented services which the clients were now able to handle themselves.

A phase-out plan for the information center was established. Some of the information center analysts were transferred to the firm's business subunits, assisting them in assimilating new technologies (such as handheld computers for sales representatives). Others temporarily remained in the center, as its purposes shifted to the support of corporate information resource management, before it finally closed. (18 points)

1. What factors were involved in the decision to dismantle the information center at Quaker Oats?
2. Discuss this proposition: "IC should be viewed as a transition department in organizations".
3. How does the life and death of the IC at Quaker Oats compare with the life cycle hypothesized in "Nolan's" stage model?

(III) 1. Explain briefly the following terms available in the internet. Write your answer in a clear and concise fashion. Illegible scribbles and irrelevant points may affect your grade negatively. (3% each, totally 24%)

(1) FTP, (2) Netnews, (3) Nickname in E-mail packages, (4) Gopher, (5) Navigation Aid in WWW, (6) encryption, (7) Mosaic, (8) Eudora

2. The following list is excerpted from the brief statistics on Taiwan's university's TANet and Internet Traffic according to the newsletter issued by the Ministry of Education Computer Center (March, 1995). You are required to present your own in-depth comment on (1) user behavior and resistance to internet, (2) cultural factors in internet adoption and diffusion, and (3) strategic application of Internet on the university competitiveness, (i.e. to support professors' research and students' community activities). During the discussion, you may consider the number of the students, the characteristics as well as the history of the university, and the implicit implication of the figures in various types of internet service used in each university. (totally 16%)

University	FTP	Telnet	Netnews	Mail	Gopher	WWW	Total KB
			------(figures in percentage)------				
Chiao-tong U.	25.86	5.81	44.98	3.16	10.82	3.27	43945253
Sun-yet-sen.	31.06	15.35	16.96	1.55	11.02	3.50	13881389
Taiwan U.	35.02	17.53	11.09	6.07	3.24	15.32	12439510
Central U.	66.64	3.48	13.86	1.35	0.74	7.59	11239786
Chung-cheng U.	66.10	1.01	0.00	1.89	26.80	1.42	9434820
Tsing-hua U.	37.95	5.74	0.00	7.52	8.52	28.99	4962576
Tatung Inst.	19.86	9.94	0.00	56.22	0.80	10.63	537496
Soochow U.	7.23	4.24	0.00	5.01	2.24	75.66	259010
Fu-ren U.	38.66	8.44	0.00	7.48	13.64	28.50	53000
Cultural U.	91.92	0.05	0.00	6.82	0.00	0.00	17107
Open U.	10.67	3.67	0.00	2.66	1.73	80.60	7815
Ji-nan U.	0.00	47.83	0.00	47.83	0.00	0.00	23

Note: (1) Chiao-tong university in Hsinchu, Sun-yet-sen (i.e. Chung-san) university in Kau-shiung, Taiwan University in Taipei, Central (i.e. Chung-yang) University in Chung-li and Chung-cheng university in Jia-yi are national universities and their computer centers are the regional central hubs of TANET.
(2) Tatung (Da-tong) Institute of Technology, Soochow (i.e. Dong-Wu) University, Fu-ren Catholic University and Chinese Cultural University are all private Universities and located in Taipei.
(3) Open (i.e. Kong-chung) University is a special kind of university that use television for distance teaching.
(4) Ji-nan University in is just newly established in Pu-li.