Question 1. (30%)

Please read the following story.   John, a Taiwanese, likes to travel around the world.   He is used to find lodging from websites that provide bed-and-breakfast (B&B) search and reservation.   B&B is a common choice for backpackers (*i.e.*, individual travelers) since it provides affordable and comfortable lodging.   Some farms or residents may offer extra rooms including complimentary breakfasts for backpackers in western countries, such as America and Europe.

John returned to Taiwan in 2005 after going abroad for several years.   He found that many lodges in Taiwan like B&Bs in foreign countries were opened in recent years.   However, it is hard for him to locate these lodges, and difficult to judge its quality even he found them on the Web.   There exists a gap in information transparency between Taiwan's tourism business and other developed countries.   At the same time, there exists an opportunity to improve the information services for Taiwan B&B business.   As John is looking for sustaining his life in Taiwan, the B&B information service could be a good business for John to start with.

The vision that John gives to the information services for B&B is to deliver up-to-date lodging information and to make reservation for individuals who will feel specially treated but pay economically. To accomplish this vision, John plans to run a business driven by information technology.   You, as a friend of John, are an expert in information systems and want to help John to complete his business plan.   You may answer the following questions regarding constituent components of information systems on the way to launch John's business.

(1) Please suggest a name for John's information services that represents the theme of the business and captures the public attention when it is advertised.   The name can be Chinese, English, or both. Please explain it. (5%)

(2) Please list the essential functions that John's information services provide.   You should refer these functions to accomplish specific objectives in the vision statement. (5%)

(3) Several information system architectures can be used for implementing John's information services, such as three-tier client/server architecture, peer-to-peer networks, or Web services architecture. Please answer the following questions based on one of these three architectures.

　(a) Please draw the essential building blocks to describe the information system architecture you chose (5%)

　(b) Please deploy those essential functions of John's information services you have assigned in answering question (2) to the architecture you specified in (a). (7%)

　(c) Based on current Taiwan's B&B operation and market status you perceived, do you think the architecture you have chosen will be a feasible system architecture?   If yes, what are critical success factors in deploying the chosen platform?   If no, why? Please explain.   (8%)

Question 2. (25%)

Read the following scenario. I-tech and Y-tech are two SOC (System On Chip) design companies. In order to leverage their complementary SOC design expertise, both firms are working on the merging process. Since both organizations are conducting knowledge intensive research and development activities, the merge of both companies involves the knowledge transfer and integration process. Knowledge management practice in both companies is different. I-tech adopts central control knowledge replication approach that the organization uses formal training with standard materials to replicate knowledge to employees. Y-tech uses autonomous knowledge network that employees are self-organized as interest groups to share knowledge. To ensure the merge is a successful campaign, the following questions need to be answered. You may answer these questions for them.

(1) They should understand their differences in knowledge management practice before the merge. Please compare the characteristics of their knowledge management practices in various aspects. You may also compare their strengths and weakness. (10%)

(2) What are the challenges for I-tech and Y-tech with different knowledge management practices to transfer knowledge? (5%) Please propose feasible solutions to tackle these challenges (5%).

(3) In system integration viewpoint, please describe the features of integrated knowledge management system for the merged I-tech and Y-tech. (5%)

Question 3. (10%)

To control the internet music distribution, some music records companies introduce protection on their CD to avoid ripping the music tracks into some file format such as MP3. However, there are some companies using Internet as a channel to allow music lovers to have access to the music. For example, one company, A, may provide music stream to allow users to listen to their favorites online. Another company, B, may provide peer-to-peer software platforms for members to search for music from other members' shared hard drive.

(1) Please describe the difference in how the two companies, A and B, generate revenues.

(2) Please provide another business model (different from what have been described: encrypted, stream, peer2peer) for generating revenues for music industry.

Question 4. (10%)

Many web sites, such as Google or Yahoo!, provide free services for having access to user data. The data will be more complete and useful when users have cultivated a habit of using a particular site. Please describe three types of data that either Yahoo! or Google can collect based on their services. For each type of data, show how it can be used for satisfying the goal of reaching target audience, cross-sell/up-sell, or loyalty enhancement (just either one of the goals for each type of data).

Question 5. (10%)

B2B online business has gained its attention for the second time after a rocky start several years ago.

(1) A typical process of B2B process tends to have one centrally managed exchange that is owned by sellers, buyers, dot-com companies or consortia. Some successful exchanges involved a consortia, e.g. Covisint, the e-market for automotive industry. However, some exchanges run by dot-com companies are less successful. Given these two facts, what do you suppose the possible reasons are? Please list three.

(2) eBay has added Skype as another communication channel between the sellers and online bidders. What are the possible advantages and disadvantages of having this new tool?

Question 6. (15%)

The newly implemented Electronic Toll Collection (ETC) is designed to replace the human toll collectors and serve other purposes. One key component to be installed on the car is a unit, called OBU, that is used to deduct tolls from the value stored card inserted into the unit. In some countries, this OBU can be removed from and installed onto a car at the driver's will. Drivers can also share OBU if they want to. In other situation, some countries may require that each OBU is designated to a car and cannot be shared with other cars.

(1) You are a manager of a company selling the OBU, please make a compelling case of why the OBU has to be designated to a car and not allowed to share.

(2) In terms of privacy protection, how would they have resulted differently for the decision of whether OBU allows to share or not.

(3) Mobile commerce is characterized by adding location information to the user profile. If the ETC provider attempts to enter Mobile Commerce, what kind of advantages or disadvantages do they have when compared with the mobile phone service providers? Please name two advantages and two disadvantages.