



UNIVERSITI KUALA LUMPUR BUSINESS SCHOOL

FINAL EXAMINATION

JANUARY 2016 SEMESTER

SUBJECT CODE : EAB11203
SUBJECT TITLE : INTRODUCTION TO INFORMATION TECHNOLOGY
LEVEL : BACHELOR
TIME / DURATION : 9.00 AM - 12.00 P.M / 3 HOURS
DATE : 24th MAY 2016

INSTRUCTIONS TO CANDIDATES

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1. Please read the instructions given in the question paper CAREFULLY.
 2. This question paper is printed on both sides of the paper.
 3. This question paper consists of TWO (2) sections; Section A and section B.
 4. Answer **ALL** questions.
 5. Please write your answers on the answer booklet provided.
 6. All questions must be answered in English (any other language is not allowed).
 7. This question paper must not be removed from the examination hall.
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THERE ARE NINE (9) PAGES OF QUESTIONS, EXCLUDING THIS PAGE.

SECTION A (Total: 40 marks)

INSTRUCTION: Answer ALL questions.

Please use the answer booklet provided.

Question 1

Define an information system and describe the activities it performs.

(4 marks)

Question 2

Describe with diagram, Porter's competitive forces model and explain how each entity provides competitive forces.

(6 marks)

Question 3

Describe how network economics, declining communication costs, and technology standards affect IT infrastructure.

(6 marks)

Question 4

Define a hacker and explain how hackers create security problems and damage systems.

(4 marks)

Question 5

Explain how supply chain management systems help reduce the bullwhip effect and how they provide value for a business.

(4 marks)

Question 6

M-commerce is the fastest growing form of e-commerce. List and describe **FOUR (4)** important types of m-commerce services and applications.

(8 marks)

Question 7

Who are knowledge workers? Describe **THREE (3)** of their key roles.

(4 marks)

Question 8

Describe **TWO (2)** examples of business intelligence applications.

(4 marks)

[Total: 40 marks]

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SECTION B (Total: 60 marks)**INSTRUCTION: Answer ALL questions.****Please use the answer booklet provided.****Case Study 1: UPS Competes Globally With Information Technology**

United Parcel Service (UPS) started out in 1907 in a closet-sized basement office. Jim Casey and Claude Ryan - two teenagers from Seattle with two bicycles and one phone - promised the "best service and lowest rates." UPS has used this formula successfully for more than 100 years to become the world's largest ground and air package delivery company. It's a global enterprise with over 408,000 employees, 96,000 vehicles, and the world's ninth largest airline.

Today, UPS delivers more than 15 million packages and documents each day in the United States and more than 200 other countries and territories. The firm has been able to maintain leadership in small-package delivery services despite stiff competition from FedEx and Airborne Express by investing heavily in advanced information technology. UPS spends more than \$1 billion each year to maintain a high level of customer service while keeping costs low and streamlining its overall operations.

It all starts with the scannable bar-coded label attached to a package, which contains detailed information about the sender, the destination, and when the package should arrive. Customers can download and print their own labels using special software provided by UPS or by accessing the UPS Web site. Before the package is even picked up, information from the "smart" label is transmitted to one of UPS's computer centers in Mahwah, New Jersey, or Alpharetta, Georgia, and sent to the distribution center nearest its final destination. Dispatchers at this center download the label data and use special software to create the most efficient delivery route for each driver that considers traffic, weather conditions, and the location of each stop. UPS estimates its delivery trucks save 28 million miles and burn 3 million fewer gallons of fuel each year as a result of using this technology. To further increase cost savings and safety, drivers are trained to use "340 Methods" developed by industrial engineers to optimize the performance of every task from lifting and loading boxes to selecting a package from a shelf in the truck.

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The first thing a UPS driver picks up each day is a handheld computer called a Delivery Information Acquisition Device (DIAD), which can access one of the wireless networks cell phones rely on. As soon as the driver logs on, his or her day's route is downloaded onto the handheld. The DIAD also automatically captures customers' signatures along with pickup and delivery information. Package tracking information is then transmitted to UPS's computer network for storage and processing. From there, the information can be accessed worldwide to provide proof of delivery to customers or to respond to customer queries. It usually takes less than 60 seconds from the time a driver presses "complete" on a DIAD for the new information to be available on the Web.

Through its automated package tracking system, UPS can monitor and even re-route packages throughout the delivery process. At various points along the route from sender to receiver, bar code devices scan shipping information on the package label and feed data about the progress of the package into the central computer. Customer service representatives are able to check the status of any package from desktop computers linked to the central computers and respond immediately to inquiries from customers. UPS customers can also access this information from the company's Web site using their own computers or mobile phones.

Anyone with a package to ship can access the UPS Web site to check delivery routes, calculate shipping rates, determine time in transit, print labels, schedule a pickup, and track packages. The data collected at the UPS Web site are transmitted to the UPS central computer and then back to the customer after processing. UPS also provides tools that enable customers, such as Cisco Systems, to embed UPS functions, such as tracking and cost calculations, into their own Web sites so that they can track shipments without visiting the UPS site.

In June 2009, UPS launched a new Web-based Post-Sales Order Management System (OMS) that manages global service orders and inventory for critical parts fulfillment. The system enables high-tech electronics, aerospace, medical equipment, and other companies anywhere in the world that ship critical parts to quickly assess their critical parts inventory, determine the most optimal routing strategy to meet customer needs, place orders online, and track parts from the warehouse to the end user. An automated e-mail or fax feature keeps customers informed of each shipping milestone and can

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provide notification of any changes to flight schedules for commercial airlines carrying their parts. Once orders are complete, companies can print documents such as labels and bills of lading in multiple languages.

UPS is now leveraging its decades of expertise managing its own global delivery network to manage logistics and supply chain activities for other companies. It created a UPS Supply Chain Solutions division that provides a complete bundle of standardized services to subscribing companies at a fraction of what it would cost to build their own systems and infrastructure. These services include supply chain design and management, freight forwarding, customs brokerage, mail services, multimodal transportation, and financial services, in addition to logistics services.

Servalite, an East Moline, Illinois, manufacturer of fasteners, sells 40,000 different products to hardware stores and larger home improvement stores. The company had used multiple warehouses to provide two-day delivery nationwide. UPS created a new logistics plan for the company that helped it reduce freight time in transit and consolidate inventory. Thanks to these improvements, Servalite has been able to keep its two-day delivery guarantee while lowering warehousing and inventory costs.

- A. What are the inputs, processing, and outputs of UPS's package tracking system?
(9 marks)
- B. What technologies does UPS use? How are these technologies related to UPS's business strategy?
(8 marks)
- C. What strategic business objectives do UPS's information systems address?
(10 marks)
- D. What would happen if UPS's information systems were not available?
(3 marks)

[Total: 30 marks]

Case Study 2: Facebook – Managing Your Privacy For Their Profit

Facebook is the largest social networking site in the world. Founded in 2004 by Mark Zuckerberg, the site had over 500 million worldwide users as of October 2010, and has long since surpassed all of its social networking peers. Facebook allows users to create a profile and join various types of self-contained networks, including college-wide, workplace, and regional networks. The site includes a wide array of tools that allow users to connect and interact with other users, including messaging, groups, photo-sharing, and user-created applications.

Although the site is the leader in social networking, it has waged a constant struggle to develop viable methods of generating revenue. Though many investors are still optimistic regarding Facebook's future profitability, it still needs to adjust its business model to monetize the site traffic and personal information it has accumulated.

Like many businesses of its kind, Facebook makes its money through advertising. Facebook represents a unique opportunity for advertisers to reach highly targeted audiences based on their demographic information, hobbies and personal preferences, geographical regions, and other narrowly specified criteria in a comfortable and engaging environment. Businesses both large and small can place advertisements that are fully integrated into primary features of the site or create Facebook pages where users can learn more about and interact with them.

However, many individuals on Facebook aren't interested in sharing their personal information with anyone other than a select group of their friends on the site. This is a difficult issue for Facebook. The company needs to provide a level of privacy that makes their users comfortable, but it's that very privacy that prevents it from gathering as much information as it would like, and the more information Facebook has, the more money it earns. Facebook's goal is to persuade its users to be comfortable sharing information willingly by providing an environment that becomes richer and more entertaining as the amount of information shared increases. In trying to achieve this goal, the site has made a number of missteps, but is improving its handling of users' privacy rights.

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The launch of Facebook's Beacon advertising service in 2007 was a lightning rod for criticism of Facebook's handling of its private information. Beacon was intended to inform users about what their friends were purchasing and what sites they were visiting away from Facebook. Users were angry that Beacon continued to communicate private information even after a user opted out of the service. After significant public backlash and the threat of a class-action lawsuit, Facebook shut down Beacon in September 2009.

Facebook has also drawn criticism for preserving the personal information of people who attempted to remove their profiles from the site. In early 2009, it adjusted its terms of service to assign it ownership rights over the information contained in deleted profiles. In many countries, this practice is illegal, and the user backlash against the move was swift.

In response, Facebook's chief privacy officer, Chris Kelly, presided over a total overhaul of Facebook's privacy policy, which took the form of an open collaboration with some of the most vocal critics of the old policies, including the previously mentioned protest group's founders. In February, Facebook went forward with the new terms after holding a vote open to all Facebook users, 75 percent of whom approved. The site now allows users either to deactivate or to delete their account entirely, and only saves information after deactivation.

In late 2009, tensions between Facebook and its users came to a head when the site rolled out new privacy controls for users, but had adjusted those settings to be public by default. Even users that had previously set their privacy to be "friends-only" for photos and profile information had their content exposed, including the profile of Zuckerberg himself. When asked about the change, Zuckerberg explained that the moves were in response to a shift in social norms towards openness and away from privacy, saying "we decided that these would be the social norms now and we just went for it."

The fallout from the change and is still ongoing, and more privacy problems keep cropping up. In October 2010, Facebook unveiled new features giving users more control over how they share personal information on the site with other users and third-party applications. These include a group's feature allowing users to distinguish specific

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circles of "friends" and choose what information they want to share with each group and whether the groups are public or private.

Shortly thereafter, a Wall Street Journal investigation found that some of the most popular Facebook applications (apps) had been transmitting user IDs— identifying information which could provide access to people's names and, in some cases, their friends' names—to dozens of advertising and Internet tracking companies. Sharing user IDs is in violation of Facebook's privacy policies.

All these privacy flaps have not diminished advertiser interest. Facebook serves ads on each user's home page and on the sidebars of user profiles. In addition to an image and headline from the advertiser, Facebook ads include the names of any user's friends who have clicked on a button indicating they like the brand or ad. A Nielsen Co. study found that including information about individuals a person knows in an ad boosted recall of the ad by 68 percent and doubled awareness of a brand's message. To determine what ads to serve to particular people, Facebook abstracts profile information into keywords, and advertisers match ads to those keywords. No individual data is shared with any advertiser.

However, it's still unclear how much money is there to be made from advertising on Facebook. The site insists that it doesn't plan to charge its users any kind of fee for site access. Facebook's 2010 revenue was expected to approach \$1 billion, which is a far cry from a \$33 billion private market valuation. But the site has already become a critical component of the Web's social fabric, and Facebook management insists that it's unworried about profitability in 2010 or the immediate future.

A. What is the revenue model described in the article and how does it work? Name and describe any other **FOUR (4)** examples of revenue models beside the one mentioned.

(10 marks)

B. What are the issues addressed over personal information?

(6 marks)

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- C. List and describe some of the options that Facebook managers have in balancing privacy and profitability.

(4 marks)

- D. E-tailer, market creator, content provider, community provider and service provider are examples of business models. Describe how it can be used as business models for Facebook.

(10 marks)

[Total: 30 marks]

END OF QUESTION PAPER