THE UNIVERSITY OF THE WEST INDIES
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EXAMINATIONS OF APRIL/MAY 2005.

CODE AND NAME OF COURSE: MS21D – MANAGEMENT INFORMATION SYSTEMS I

MGMT 2006

DATE AND TIME: **DURATION: 2 Hours**

INSTRUCTIONS TO CANDIDATES: This paper has 3 pages and 4 questions.

Answer Question 1 (30 marks) and two (2) other questions (20 marks each).

Question 1. Write short notes on five (5) of the following. Where relevant use examples and diagrams to illustrate your notes. [5*6]

i) 4 generalized phases of information systems development

ii) Normalization – an important step in database design.

iii) Evaluating information as a resource (in terms of quality and so on)

iv) Business process modeling with DFDs. (Draw a one-level (context) DFD to illustrate your notes. You may use any system that you are familiar with - for example, renting a video)

v) Steps in Decision-Making. In your notes you should also identify one common flaw in the way that people normally make decisions as well as one way that an information system might help counter the flaw you identified.

vi) Feasibility Study – A Critical Step in IS Development

vii) Porter's generic competitive strategies. Identify which of these three (3) strategies, if any, are sustainable.

viii) Challenges a company may face when becoming an e-commerce company (Describe 3 challenges).

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Question 2. Identify 4 distinct types of information systems (IS). Do not identify vertical information systems (for example human resource information system (HRIS)). For each system:

- Give a brief definition of the information system identified [4*1]
- Describe one way in which the IS impacts on communication [4*1]
- Describe one way in which the IS impacts on decision-making [4*1]
- Give one example of how the how the IS is used in a functional area of your choice [4*1]
- Identify a managerial role as related by Mintzberg supported by the IS [4*1]

Question 3. There are several alternative approaches (life cycles) for building and maintaining an information system.

(a) Describe any three (3) of these approaches by:

- Providing a summary of the approach [3*1]
- Listing one advantage and one disadvantage of the approach [3*2]
- Choose a type of information system best suited to that developmental approach. Justify your choice. [3*2]

(b) Is it desirable to combine features of these different alternative approaches for building any one particular system? Discuss. [5]

Question 4. **AMAZON.COM** (Use the case on the next page to answer the following questions)

As a systems analyst employed by an investment company considering a capital injection into Amazon.com, you have been asked to analyze its work systems to provide a snapshot of its activities for your company's stakeholders.

a. What is meant by **work system**? List the eight elements that should be included in the work system framework. [2+4]

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Question 4 (continued). **AMAZON.COM: AN EVOLVING BUSINESS MODEL**

Amazon.com was launched in 1995 as the first major bookseller on the World Wide Web and touted itself as the earth's biggest bookstore. The way Amazon.com provided value for its customers was quite different from the approach of traditional stores. It was a virtual bookstore that could sell any of 2.5 million books, 10 times the number in the largest chain store, even though it has no apparent physical location and actually stocked very little inventory. It gave discounts on some items, just as most chain stores did, but it charged a shipping fee and always had a delay for shipping. If a shopper knew what book to consider, information about it could be found immediately. If a shopper did not know what to consider, it was possible to search on author, title, or subject. In some cases, it was possible to see excerpts from published book reviews, comments by other readers, or even a sample chapter to see some of the book's content and style. Amazon.com could also use a profile of the books the buyer had ordered to identify other books that might be of interest.

Although first out of the box, Amazon soon faced growing competition as other booksellers responded by creating their own online bookstores. In May 1997, Barnes & Noble opened its own online bookstore and sued Amazon over its assertion about being the earth's biggest bookstore. Barnes & Noble argued that Amazon's assertion amounted to false advertising because it keeps only a few hundred titles in stock at any given time. "[Amazon] isn't a bookstore at all," Barnes & Noble claimed. "It is a book broker making use of the Internet exclusively to generate sales to the public." Barnes & Noble's new Web site trumpeted itself as "The World's Largest Bookseller Online."

Amazon's business model faced severe challenges in the next few years, and by the end of 2000, its business had evolved in several directions. Amazon initially kept its costs low by carrying little inventory, and filling orders by obtaining the books from several wholesalers, packing them, and shipping them to customers from a central facility. By 1999 it was building five large warehouses so that it could fill orders in a timely, efficient manner. Suddenly it had to deal inventories, even if it didn't have the expense of physical store locations. Amazon also started selling other types of products, such as CDs, toys, housewares, and consumer electronics At various times it had offered discounts of as much as 50% on bestsellers, but in an effort to attain profitability it reduced these discounts substantially.

The investment community was split about Amazon's long-term prospects. On the one hand, it was one of the best known and mostly widely publicized e-retailers. Due to Amazon's strong brand recognition, customers associated Amazon with online shopping and tended to go to its Web site rather than other, less known competitors. It had developed a highly effective customer experience for people who did not want to go to a physical store. It had even patented with - a one-click checkout method that made purchases on its Web site especially convenient. Its delivery record was viewed as comparatively reliable. On the other hand, Amazon had never been profitable and continued its string of quarterly losses through 2000. For the first three quarters of 2000, revenues increased 86% to $1.79 billion, but the net loss totaled $866.1 million. Some investment analysts believed Amazon would not become profitable in the near future and some even questioned whether Amazon had enough money to stay in operation through all of 2001. After hitting a high of $113 in December 1999, Amazon's stock price dropped to as low as $19 in late 2000.

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