Southern College
Kolej Selatan
南方学院

Final Examination
Semester 2 / Year 2011

COURSE : STRATEGIC INFORMATION SYSTEMS
COURSE CODE : CSIS2003
TIME : 2 1/2 HOURS
DEPARTMENT : COMPUTER SCIENCE
LECTURER : LEE HUAH

Student’s ID :
Batch No. :

Notes to candidates:
1) The question paper consists of 5 pages, 4 sections and 23 questions.
2) Answer all questions.
3) Use the “Standardized Answer Form” for all sections
4) Return the question paper with your answer booklet.
Section A. Choose one proper answer for the following questions. (10 questions X 2 = 20 marks)

1) The Information Systems Strategy Triangle consists of three strategies. Which strategy focuses on where the organization seeks to go and how it expects to get there?
   a) Business Process
   b) Business Strategy
   c) Organizational Strategy
   d) Information Strategy
   e) Technology Strategy

2) This model, created by D’Aveni, describes the strategies companies can use to disrupt competition.
   a) New 7 Ss Framework
   b) Hypercompetition Framework
   c) Strategic Framework System
   d) Standard System Strategy Model
   e) Multiple Competition Model

3) This term, __________________, is defined as the available data, technology, people, and processes within an organization to be used by the manager to perform business processes and tasks.
   a) information resources
   b) information technology
   c) information systems
   d) system technology
   e) organization resources

4) This is an approach that improves the way a company finds raw components it needs to make a product or service, manufactures that product or service, and delivers it to customers.
   a) Customer Relationship Management
   b) Supply Chain Management
   c) Production Supply Management
   d) Strategic Alliance Management
   e) Value Chain Management
5) The main benefit of ______________ is that the user can aggregate frequently updated data such as news, blog entries, changing stock prices, and recent changes on wiki pages into one easily manageable location.
   a) Email  
   b) Groupware  
   c) RSS Web Feeds  
   d) Bulletin Boards  
   e) Virtual Private Networks

6) The Resource-Based View is useful in determining whether a firm’s strategy has created value. Unlike Porter’s competitive forces framework, this view maintains that competitive advantage comes from the ______________ and other resources of the firm.
   a) data  
   b) technology  
   c) information  
   d) systems  
   e) people

7) Critical to the business case is the identification of both ________ and _______.
   a) costs, risks  
   b) costs, benefits  
   c) advantages, disadvantages  
   d) benefits, risks  
   e) benefits, detriments

8) These are comprehensive software packages that incorporate all modules needed to run the operations of a business. They should include the following modules: Manufacturing, Accounting, Human resources and Sales.
   a) BRP systems  
   b) Groupware system  
   c) ERP systems  
   d) TQM systems  
   e) BBB systems

9) _________________ are architectures where significant hardware, software and possibly even data elements reside on the Internet.
   a) Internet-oriented architectures  
   b) TCP/IP architectures  
   c) Web-oriented architectures  
   d) Mobile architectures  
   e) VoIP architectures
This type of architecture is defined as an architecture where larger software programs are broken down into services which are then connected to each other, in a process called orchestration.

a) SOA
b) ERP
c) SAP
d) ISP
e) OSP

Section B: Key terms test questions. (5 questions X 3 = 15marks)
Explain the following key terms with related example which used for information system purpose.

1) Application service provider (ASP) –

2) Customer relationship management (CRM) –

3) Supply chain management (SCM) –

4) Business diamond –

5) Backsourcing –

Section C. Essay answer of the following questions (Total: 45 marks)
1) Consider a traditional manufacturing company who wanted to take advantage of the Internet and the Web 2.0 tools. What might be a reasonable business strategy and how would organizational and IS strategy need to change? (10 marks)

2) The make-versus-buy decision is important every time a new application is requested of the IS group. What, in your opinion, are the key reasons an IS organization should make its own systems? What are the key reasons it should buy an application? (10 marks)

3) Describe the conditions under which ROI, payback period, NPV, and EVA are most appropriately applied. (15 marks)

4) Why was radical design of business processes embraced so quickly and so deeply by senior manager of so many companies? In your opinion, and using hindsight, was this a benefit for businesses? Why or why not? (10 marks)
Section D: Case Study (5 marks for each and total 20 marks)

Boeing 787 Dreamliner

Delivery of Boeing’s 787 Dreamliner project was delayed, in part, because of their global supply chain network, which was touted to reduce cost and development time. In reality, this turned out to be a major cause for problems. Boeing decided to change the rules of the way large passenger aircraft were developed through its Dreamliner program; rather than simply relying on technological know-how, it decided to use collaboration as a competitive tool embedded into a new global supply chain process.

With the Dreamliner project, Boeing not only attempted to create a new aircraft through the innovative design and new material, but it also radically changed the production process. It built an incredibly complex supply chain involving over 50 partners scattered in 103 locations all over the world. The goal was to reduce the financial risks involved in a $10 billion-plus project for designing and developing a new aircraft and reduce the new product development cycle time. It tapped expertise of various firms in different areas such as composite materials, aerodynamics, and IT infrastructure to create a network in which partners’ skills complement each other. This changed the basis of competition to skill set rather than the traditional basis of low cost. In addition, this was the first time Boeing had outsourced the production on the two most critical parts of the plane – the wings and the fuselage.

The first sign of problems showed up just six months into the trial production. Engineers discovered unexpected bubbles in the skin of the fuselage during baking of the composite material. This delayed the project a month. Boeing officials insisted that they made up the time and all things were under control. But next to fail was the test version of the nose section. This time a problem was found in the software programs, which were designed by various manufacturers. They failed to communicate with each other, leading to a breakdown in the integrated supply chain. Then problems popped up in the integration of electronics. The Dreamliner program entered the danger zone when Boeing declared that it was having trouble getting enough permanent titanium fasteners to hold together various parts of the aircraft. The global supply network did not integrate well for Boeing and left it highly dependent on a few suppliers.

This case clearly underscores the hazards in relying on an extensive supply chain in which information exchange problems may create extended problems and seriously compromise a company’s ability to carry out business as planned. Creating a radically different process can mean encountering unexpected problems. In some cases, it would put a company so far behind their competition that they were doomed to fail. However, in this case, the major competitor to the Dreamliner, the Airbus 380 program, was also using a global supply chain model, and its program was delayed by a couple of years. Their competition continued.
1) Why did Boeing adopt the radical redesign for designing and developing the 787 Dreamliner? In your opinion, was it a good move? Defend your choice.

2) Using the Silo Perspective vs. Business Process Perspective analyze the Dreamliner program.

3) Develop a risk analysis scenario using the Risks of Radical Redesign framework discussed in the chapter.

4) If you are the program manager, what would you have done differently to avoid the problems faced by the Dreamliner program?