Instructions to Candidates:

1. This paper consists of Sections A and B.
2. Section A is compulsory.
3. Answer only Two Questions from Section B.
4. Start each question on a fresh page.
5. This paper carries a total mark of 100.

This question paper contains 4 questions and 8 pages including attachment
SECTION A: COMPULSORY

QUESTION 1: (50 MARKS)

Read the case study found on page 5 of the question paper and answer the questions below:

(a) What are the impacts of implementing an E-Business strategy at Digiland?  

   (15 marks)

(b) What measures can be taken in order to retain customers so that they visit the Digiland website as much as possible?  

   (10 marks)

(c) List the five fundamental requirements for successful and secure transactions at Digiland  

   (5 Marks)

(d) What are the marketing strategies used by Digiland throughout its progress?  

   (10 Marks)

(e) Identify the different virtual market places in the case study  

   (10 Marks)
SECTION B: ANSWER ANY TWO QUESTIONS

QUESTION 2: (25 MARKS)

(a) With the help of appropriate examples, describe Porter’s five force model for E-business companies.  

(10 Marks)

(b) How has Web page standards contributed to the emergence of E-Business?  

(5 Marks)

(c) Community marketing has helped to attract customers on E-Business website. What are the driving factors for community formation?  

(5 Marks)

(d) Paypal.com offers a digital payment system. Describe the type of payment it offers.  

(5 Marks)
QUESTION 3: (25 MARKS)

(a) Describe the 5 main E-Business Models

(10 Marks)

(b) An important step in developing an E-business strategy is to evaluate the E-Business implementation strategy. Describe the evaluation of the E-Business implementation strategy.

(5 Marks)

(c) Explain how the use of cookies in E-Business may impede on the privacy of individuals

(10 Marks)

QUESTION 4: (25 MARKS)

(a) Describe the different E-Business concepts

(10 Marks)

(b) How is CRM an important factor in the marketing strategy for E-Business?

(5 Marks)

(c) What are the key elements in managing an E-Business infrastructure?

(10 Marks)
CASE STUDY

“For us, business to business e-commerce is much more significant than business to consumer, although the latter is much better known by the public. But even more importantly, and probably even less visibly, we have become an e-company. As a result of this ‘webification’, not a single process has remained unchanged.” Harbinder Karuh, the e-commerce and call centre manager of Digiland International Pte Ltd, was describing the changes that had occurred at the company and at its parent, GES International Limited (GES), since the start of an ambitious program to use electronic commerce across its supply chain. “Moreover, the program is ongoing—our processes change on a daily basis.”

Company Background
GES was founded in Singapore in 1975 by Mr Goh Lik Tuan, who in 2000 was the company’s Executive Chairman. Mr Goh led the company first into the manufacture of IBM-compatible personal computers under the Datamini brand, and then, as PC prices fell, into contract manufacturing and assembly as well. By 2000 GES manufactured Datamini PCs and peripherals, point of sale terminals for IBM, and notebook computers for Hewlett Packard and Hitachi. GES added the Digiland distribution arm in the early 1990’s, and by 1999 Digiland had grown to represent more than one-third of GES’s revenue. The company distributed personal computers, components, supplies, and peripherals made by Intel, Hewlett Packard, IBM, Epson, Canon, Hitachi, Fujitsu, and 3M, in addition to Datamini products. For most of the company’s history, the majority of its customers had been resellers, that is, companies that sold PCs and other products to business and consumer buyers. A few very large business and government organisations purchased directly from Digiland, but before 1998 the company did not sell directly to consumers. GES listed on the Australian stock exchange in August 1997 and on the Singapore stock exchange in February 1999.

The Vision
“Mr Goh and our Managing Director, Mr Daniel Yeong Bou Wai, started this vision in 1997,” recalled Eugene Wang, the Chief Technology Officer of Digiland and the General Manager of Aspiren.com Pte Ltd., a Digiland subsidiary. “We were a traditional business, and we asked: what can we do? There was a crisis in the distribution model for our product. The value chain had many steps, and the margins were low to begin with. In order to give benefit to consumers, we had to shorten the chain. We did not use a formal planning process, but rather a great deal of discussion, initiated by our managing director.” In the new model, Digiland would sell its products directly as well as through third parties. Both direct and third party customers would interact with Digiland primarily via telephone and the Internet, rather than working through a salesperson. Shipments would come from Digiland warehouses, primarily in Digiland’s own vans. The call centre, one of the first in Singapore, would have a role in both sales and customer support. It would have a staff of about 60, and the rest of Digiland approximately 120.

At the time, Digiland distributed to more than 400 resellers in Singapore, including system integrators, department stores, small
shops, and subdistributors. “There were lots of discussions within the management team about channel conflict,” Wang said. “We did not want to offend our existing customers, but we observed the success of Dell and other direct-to-consumer companies, and we became convinced that a segment of the market preferred to buy over the Internet. In the end we decided to be careful, but to do it. It was the only way to transform the company. Our resellers already trusted us, and we positioned electronic commerce as a continuation of our core customer offering—fast responses, short lead time and serving as the reseller’s ‘virtual warehouse’.”

Digiland called in consultants to assist with complete redesign of their value chain, including both business-to-business (B2B) and business-to-consumer (B2C) selling. The design incorporated benefits for existing reseller customers, including the ability to order electronically and to access information about accounts receivable, order status, and delivery schedules. In the past, ordering had required tracking down a salesperson, who often was out of the office and thus did not have immediate access to the information that the customer needed. Once the salesperson got to the office, he or she could easily retrieve the information that the customer needed, and then contact the customer—but in the meantime a day or two would often have elapsed. The new system also offered resellers an opportunity to integrate Digiland’s data directly into their own back office systems, thereby becoming better informed about the state of their business. The Digiland sales force was asked to promote the benefits and use of the new system; the percentage of customer orders coming in electronically was made one of their performance indicators.

“Our channel partners can see what’s coming,” Wang said. “The industry is moving, we have been quite open with them about our plans, and they are beginning to think about what their future role will be. Some of them want to do fulfillment for us, and others want to set up kiosks to allow customers to order electronically from us while in their shops. Still others want to become demonstration centres for our products, where potential customers can try our products before ordering over the Internet. I believe the physical sales channel will always be there, but resellers will have to become more customer service oriented in order to survive.” By early 2000, Digiland had not lost a single customer, and in fact had added some new resellers who were attracted by the benefits of doing business electronically.

In addition to the possibility of channel conflict, Digiland’s senior managers were concerned about financial risk, since the initial cost alone of the ecommerce initiative, including consulting fees, was approximately 50% of GES’s annual profits. Because many of the primary benefits were expected to be intangible—for example, making it easier for customers to interact with the company, and achieving a high-tech image—no ROI target was set. The company did, however, track usage of the new system, and put in place incentives to encourage everyone to support it. For example, sales people were expected to become ambassadors for the use of electronic commerce, and received no commission for sales to a given customer unless that customer placed at least half of its orders electronically. Sales people were freed of many of the tasks they had performed in the past, including checking inventory levels and tracking shipments, giving them time to promote the use of the new electronic channel. Within the first year of implementation, the online ordering system was used by about 70% of Digiland’s customers. The company believed that some customers would never convert, despite the fact that these customers sold the latest in information technology. Digiland would continue to do business with such customers, although the company recognised that it was more expensive to deal with them. Digiland continued to try to convince slow-adopting customers to achieve the benefits of electronic commerce, and was contemplating offering them a small discount if they would convert to electronic ordering.

For many Digiland employees, the electronic commerce initiative came on top of an already busy work schedule, and some
employees expressed concern that the attention required by the new direction would jeopardise existing business. Support from top management was instrumental in maintaining focus on the new system.

**The Dot Com**

Although the ‘B2B’ aspect of the new system had a much higher transaction volume, ‘B2C’ was Digiland’s “face to the world” and received a good deal of attention in the media as well as internally. The web site moved very quickly beyond the 15 brands physically distributed by Digiland to become the “Digiland Mall,” which included 85 brands and 1,500 products. In addition to computers and peripherals, the mall offered CDs, books, toys, gifts, and consumer electronics. High sales of a computer or peripheral product over the web site were an indication to Digiland to explore the possibility of distributing that product in the physical world as well; although many such products were already handled by one of Digiland’s competitors, such distribution arrangements were very rarely exclusive.

Digiland’s reseller customers used the mall’s home page as the “front door” to a special site, which required a user name and password, to access information about their transactions with Digiland. Large business customers were also granted access to areas of the site set aside for them; the products and pricing offered could differ from one such customer to the next. A customer contemplating a particularly large purchase could ring up Digiland to negotiate a better price; the special price would then be entered into that customer’s area of the Digiland web site, where it would remain valid for just three hours.

By policy, the prices for computers and peripherals on DigilandMall.com were meant to be generally no lower than the “street price” for the same product. Like all merchants, however, DigilandMall.com had occasional sales and special offers, and Harbinder Kaurah had observed an interesting aspect of customer behaviour. “When I put something on special on Thursday,” he said, “We get no orders that day, or Friday, or over the weekend. But on Monday and Tuesday, the orders pour in. What is happening is that our customers spend the weekend comparing prices in the shops, and on Monday they are ready to order from us.” DigilandMall.com accepted electronic orders from end-user consumers in Singapore, Malaysia, and Australia, and delivered to consumers from physical locations in their own countries.

Within a few hours of receiving an order over the Internet, Digiland contacted the consumer by telephone, ostensibly to arrange a delivery time, but also to authenticate the order before the goods were shipped (and, in the case of Datamini PCs, before the goods were even manufactured). The only known case of an invalid order actually being delivered occurred when a Singaporean teenager used his father’s credit card to order a new computer.

Digiland used its existing fulfilment teams, organised initially to supply third-party customers, for home delivery as well. When Internet orders surged due to special sales or seasonal factors, the company also made use of selected third-party couriers. Information on delivery performance was routinely gathered, analysed, and reported electronically to Harbinder Kaurah. “Our delivery performance is excellent, but if the competition is diligent enough, they can leapfrog us,” Kaurah said. “Home delivery is an important advantage for us now, but we need to continuously monitor and improve our performance to stay in front.”

Within six months of its creation, DigilandMall.com again changed direction. The expansion beyond the brands physically distributed by Digiland was reduced to consumer electronics—the CDs, books, toys, and gifts were gone. “Customers told us they found the site cluttered,” Kaurah said, “and we could not control fulfilment from third parties in the same way we control our own deliveries. Consumer electronics are closely related to our PC and peripherals business, and we plan to continue offering them. But we have even further changes planned, for example much closer integration with suppliers and resellers.”
Over the same period of time, Digiland observed changes in the way consumers were doing business. More orders came in over the Internet, and fewer to the call centre—a good thing, considering that call centre employees were regularly being poached by other Singaporean businesses as they too began to take orders over the phone. More and more consumers were willing to give their credit card details over the Internet, as opposed to paying cash upon delivery of the merchandise. Despite—or perhaps because of—its success, Digiland remained the only Singapore-based computer merchant doing business over the Internet.

Architecture
The new Digiland system was written largely in Java, and was integrated with its company-wide enterprise resource planning (ERP) system, MFG Pro. Eugene Wang had spent the past five years installing MFG Pro throughout GES, putting the organisation on a single software platform. When GES acquired other companies, the acquired company’s back-office systems were replaced with MFG Pro as a matter of course. Wang viewed the integration between ERP and e-commerce systems to be a significant competitive advantage for GES, which had been achieved only through a great deal of effort and could not readily be duplicated.

To capitalise further on the value of this work, GES had created a new subsidiary, Aspiren, to become an application service provider (ASP) for integrated ERP – e-commerce systems. In the same way that Kaurah occasionally offered consumer prices that were below those offered to Digiland’s reseller customers, Wang indicated a willingness to provide software or ASP services to Digiland’s competitors.

The Future
Both Eugene Wang and Harbinder Kaurah anticipated that Digiland’s use of electronic commerce would continue to grow and change, and that the company’s value chain would become even more integrated. In particular, Kaurah foresaw closer partnerships with resellers, while Wang anticipated creating a centralised repository of the information about products and prices that currently resided exclusively in the heads of the sales people. Both managers expected Digiland to remain in the “clicks and mortar” distribution business, but Wang noted, “We’re moving towards becoming an ‘e-distributor.’ How far will that go? Who knows! The one thing that we can be sure of is that Digiland will move well beyond doing ecommerce transactions on the Internet and truly start doing e-business.”

***END OF QUESTION PAPER***