

UNIVERSITY OF RUHUNA

BACHELOR OF COMPUTER SCIENCE (GENERAL) DEGREE LEVEL III (SEMESTER I)
EXAMINATION - MAY 2023

SUBJECT : COMPUTER SCIENCE

COURSE UNIT: CSC 3122 (E-commerce and Professional Practices)

TIME : 2 hours

Answer all questions.

- a. List the elements of E-commerce and briefly explain them using an example. (5 marks)
- b. Compare Web 1.0 and Web 2.0 considering the following factors of E-commerce. (10 marks)
- i. Viral marketing
 - ii. Crowdsourcing
 - iii. Customer loyalty
 - iv. Customer interaction points
 - v. User segmentation
- c. Discuss 2 technical challenges and 2 economic challenges of E-commerce. (10 marks)
- 2.
- a. List the business models categories in E-commerce considering E-commerce sectors and provide an example for each category. (5 marks)
- b. Give the suitable E-commerce business net types for each business scenario described below. (10 marks)
- i. The ABC organization aims to run a virtual marketplace. The portal shows all the market information with the ability of negotiation for customers with the vendors and pricing for goods and services are dynamic.
 - ii. X is a technology company that aims to establish an optimized value creation chain by implementing systematic supplier selection, process optimization, and product integration throughout the entire value chain.
 - iii. Eco Corporation has implemented an ecommerce system for its digital supermarket with a wide range of products listed at fixed prices. However, the system does not allow for price negotiations.
 - iv. The R Company aims to establish an optimized value creation chain by developing innovative products and processes that build trust between different actors, without relying on hierarchical supervision.
 - v. Company AY developed an E-commerce portal with the objective of exchanging information, goods and services. This specific portal provides net optimization, unlimited usage, and logistic processes. (10 marks)
- c. Amali, a small business owner, is considering opening a new coffee shop in Nuwara Eliya area, which is well-known for its upcountry tea estates and several famous tea shops that have been functioning since the 1980s. Amali plans to implement a simple e-commerce system for her coffee shop to better serve her customers. While there are only a few coffee shops around Nuwara Eliya, none of them currently have their own e-commerce platform. Using Porter's Five Forces model, discuss how each force impact on the profit making in the Amali's coffee shop. (10 marks)

3.

- a. Briefly explain the generic strategies defined by Porter that a firm can use to achieve a better competitive position. (5 marks)
- b. Explain 5 aspects a company should consider when deploying an e-commerce presence for efficient management of its business activities. (5 marks)
- c. *Home Super* is a local supermarket chain with over 100 outlets across the island. During the COVID-19 outbreak and the imposed curfew, customers were unable to visit the outlets physically for shopping. Therefore, *Home Super*'s management decided to implement an E-commerce system that allows customers to place orders and make payments online. Once the customer has successfully completed the payment, *Home Super* will provide delivery services for the order.
 - i. Explain pre-planning and pre-building decisions that *Home Super* management should discuss. (5 marks)
 - ii. Explain how *Home Super* should consider right sizing the required hardware platform for this E-commerce platform considering the demand side and supply side. (5 marks)
 - iii. List the web hosting alternatives that *Home Super* could consider for hosting their developed E-commerce system. (5 marks)

4.

- a. Write down whether the following statements are TRUE or FALSE.
 - i. A catalog display, shopping cart capabilities and transaction processing are considered as basic functions in an E-commerce system.
 - ii. Two-tier E-commerce architecture is suitable for E-business system implementation whereas multi-tier E-commerce architecture is suitable for E-commerce system implementation.
 - iii. A website that annoys customers runs the risk of losing the customer forever.
 - iv. "Send personalized email based on user behavior" is an example for E-commerce customization marketing.
 - v. It is needed to consider platform constraints when developing M-commerce applications. (5 marks)
- b. Write short notes on following topics.
 - i. Electronic Fund Transfer
 - ii. Security threats in E-commerce environment. (5 marks)
- c. Briefly explain 5 factors that are important to be considered for a successful E-commerce site design. (5 marks)
- d. After graduating as a Computer Science specialist, Namali and a few of her friends started a small-scale online retail store using a Facebook page. As demand grew over time, Namali found it challenging to track orders and manage deliveries in a methodical manner. Hence, her partners encouraged her to implement an E-commerce system, and she began developing the system on her own since she has the necessary skills. Discuss the potential risks that Namali might face while implementing the E-commerce system on her own. (10 marks)