



University of Colombo, Sri Lanka

University of Colombo School of Computing

BACHELOR OF SCIENCE IN INFORMATION SYSTEMS

Second Year Examination - Semester II –UCSC AY20 [held in March/ April 2024]

IS2112 — eBusiness Strategies

(Two (2) Hours)

Answer ALL questions

Number of Pages = 16

Number of Questions = 4

105

To be completed by the candidate

Index Number:

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Important Instructions to Candidates:

- I. Students should answer in the medium of English language only using the space provided in this question paper.
- II. Note that questions appear on both sides of the paper. If a page or a part of this question paper is not printed, please inform the supervisor immediately.
- III. Write your index number **CLEARLY** on each and every page of this Question paper.
- IV. This paper consists of 4 questions in 16 pages (including the Cover Page).
- V. Answer **ALL** questions. Questions carry equal marks.
- VI. Calculators and any electronic device capable of storing and retrieving text including electronic dictionaries, smart watches and mobile phones are not allowed.
- VII. Do not tear off any part of this answer book. Under no circumstances may this book, used or unused, be removed from the Examination Hall by a candidate

To be completed by the examiners

1	
2	
3	
4	
Total	

Question 1

Use the following case study to answer the questions given in Question 1 and any other questions referred to the case study.

“BUILDER” is a leading building construction company that has been in business for the last 20 years. The owner of BUILDER, Mr. Buddy Perera, has a wealth of experience in the construction industry in Sri Lanka and the company also has worked collaboratively with International construction companies gaining expert knowledge and experience along the way.

BUILDER has a good team of designers and constructors including architects, surveyors, civil/mechanical/ electrical/ structural/ fire protection engineers, planning consultants, architectural consultants and many layers of workers. BUILDER has been constructing single houses, housing schemes, commercial buildings and high-rise apartments.

The end of the war in Sri Lanka brought new hope to the construction sector as well as attracted a few new competitors with international reputation. These companies came with high technology and the latest machinery and equipment that BUILDER is second to. The raw material suppliers found new customers as well. Suppliers of raw materials in the construction sector have many companies to cater to. In the North and the East, many hotel projects are going on giving new hope to the construction sector in Sri Lanka. However, with Covid-19 pandemic and the recession in the last few years, the construction industry slowed down tremendously and BUILDER is losing its glory.

BUILDER is thinking of building new collaborations with the related industries. There are many other industries that are doing very well such as tourism, hotel industry, manufacturing sector, health sector with the expansion and re-location of many government sector offices. BUILDER is thinking of a new collaborative project of designing and constructing high-quality condominiums, with individually furnished units, which conform to international standards by utilizing premium brands, superior building materials and best-practice construction methods.

BUILDER has 3 branches in Galle, Kandy, Jaffna and a head office in Rathmalana. The branches and the head office are linked with a basic integrated solution which manages the financial accounting side of their business. It needs a more comprehensive solution to manage, in this competitive digital environment.

BUILDER is looking at new technologies and collaborations to forge ahead in the industry.

Index Number:

- a) State the facts in point form and carry out a Situational Analysis to understand the ground situation of the Company 'BUILDER'.

[10 Marks]

[illegible]

Index Number:

- b) BUILDER needs to identify the environmental forces working on the company. Illustrate and carry out a Michael Porter's Forces Analysis on BUILDER. Justify your answer.

[07 Marks]

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is a vertical margin line on the left side, creating a narrow left margin. The paper appears to be from a notebook or a standard ruled document. There is no handwriting or printed text on the page.

Index Number:

- c) Propose the **Two (02)** most suitable eBusiness models for BUILDER to go forward expanding the business. Justify your answer with illustrations as to how the business can be improved by applying these eBusiness models.

[08 Marks]

[illegible]

Index Number:

Question 2

- a) Describe the meaning of the following statement discussing the benefits and problems associated with it.

“eBusiness moves businesses from place to space!”

Related to the above statement, list down **Five (05)** products/services that can be digitised and **Five (05)** products/services that cannot be digitised.

[09 Marks]

b) Are the following statements **TRUE** or **FALSE**?

Explain and justify your answer by illustrating the eBusiness Model using an example for each:

- (i) “When there are many Small and Medium companies in an industry that has a potential for foreign buyers in the world while the threat of new entrants is high, it is advisable to go for a Global Trade Platform to deal with the complications.”
- (ii) “When the threat of new entrants is high, and the Rivalry among competitors are high in a particular industry, it is advisable to use the ‘Revenue sharing eBusiness Model’ to carry out value added product differentiation”

[08 Marks]

Index Number:

- c) Using an appropriate model for eTransformation is a crucial factor for the successful transformation of a company to move from Real to Virtual. Describe the following stages of the model 7 Es in eTransformation.
- (i) eReadiness
 - (ii) eTransformation Roadmap
 - (iii) eSystems
 - (iv) Evolution – Change Management

[08 Marks]

[illegible]

Index Number:

Question 3

a)

- (i) Assume you are trying to purchase a wireless headphone from the website of a newly opened online marketplace named as *Trade Trek*. Briefly describe how each individual component of the eBusiness infrastructure operates in this scenario.

[05 Marks]

[illegible]

Index Number:

- (ii) State whether the following statement is “True” or “False” and give your justification with reference to *Trade Trek* mentioned in Part (a).

“Long tail SEO is a good technique of gaining site visits for smaller websites or businesses.”

[04 Marks]

True or False:
Justification:

- b) Compare the internet, intranet and extranet for the “Access” element of eCommerce.

[03 Marks]

- c) Illustrate how the application silos of an organization can be converted to an integrated solution for silos, where ERP systems can be applied for operations, by using the different branches of UCSC (You may take: Examinations and Registration Branch, Academic and Publications Division, Finance Division and Network Operations Centre)

[08 Marks]

Index Number:

- d) Match the technical terms in the box that relates to security in eBusiness applications with the explanations given in (i) to (v).

Keyloggers, Spoofing, Anti-Virus, DOS Attack, Hoax Virus, DDOS Attack, Macro Virus, Phishing, Trojans, Worms

- (i) Sending emails or other messages showing to be from reputable companies in order to induce individuals to reveal personal information, such as passwords and credit card numbers.

[01 Mark]

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- (ii) A cyberattack that makes a computer or other device unavailable to its intended users by overwhelming the targeted machine with requests until normal traffic can no longer be processed.

[01 Mark]

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- (iii) A cyber-attack written in the same language used to create software programs such as Microsoft Excel or Word.

[01 Mark]

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- (iv) A cyber-attack that distributes false, often disturbing, information designed to trick recipients into passing the same note onto other E-mail users.

[01 Mark]

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- (v) A type of computer program designed to detect, prevent, and remove malicious software (malware) from computers and networks.

[01 Mark]

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Question 4

- a) Briefly explain the difference between how Open Loop and Closed Loop payments operate by giving examples for each of the two technologies for an online clothing shop.

[05 Marks]

Index Number:

- b) State the technology used in contactless mobile payments and briefly explain how it operates.

[05 Marks]

Technology:
Operation:

- c) Briefly explain the concept of Cybersquatting with reference to an example.

[05 Marks]

Index Number:

d) State whether the following statements are “True” or “False” and give justification for your claim.

- (i) Customers being granted with a higher bargaining power has become a disadvantage for mobile commerce.

[02 Marks]

True or False:
Justification:

- (ii) Vendor Lock-In is a disadvantage in using Software as a Service.

[02 Marks]

True or False:
Justification:

Index Number:

(iii) The tag “#GotaGoHome2022” is a folksonomy.

[02 Marks]

True or False:
Justification:

(iv) A Digital Twin is similar to a Software Prototype.

[02 Marks]

True or False:
Justification:

(v) PaaS provides access to resources such as virtual machines and virtual storage while IaaS provides execution environments, application development, and deployment tools.

[02 Marks]

True or False:
Justification:

**** End of the Paper ****