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University Examinations 2023/2024

THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF COMPUTER SECURITY AND FORENSICS

CCF 3350: E-BUSINESS SECURITY

DATE: APRIL 2024   **TIME: 2 HOURS**

INSTRUCTIONS: *Answer question **one** and any other **two** questions*

QUESTION ONE (30 MARKS)

a) Identify common threats facing organizations conducting online businesses   (5 Marks)

b) Describe the potential consequences for organizations that neglect security in their electronic business operations   (4 Marks)

c) Using examples explain the techniques commonly employed to enhance the security of online businesses   (6 Marks)

d) State and briefly explain the three IPSec functional areas of any given online business
                                                                                 (6 Marks)

e) Describe four goals of web attackers on an e-commerce company   (4 Marks)

f) Briefly explain the following terms as used in E-Business security   (5 Marks)

   i.   Social Engineering

   ii. Outsourcing

iii. Firewall

iv. Attack

v. Website

QUESTION TWO (20 MARKS)

a) State and briefly explain three Key characteristics of secure E-Business   (6 Marks)

b) Citing Amazon and Jumia companies that engage in secure E-Business. State the business model and the revenue model used by each of the two companies   (4 Marks)

c) Highlight five major aspects that E-Commerce laws should address to achieve a better environment for online trading   (5 Marks)

d) Discuss the importance of Public Key certificates and infrastructures in E-Business security   (5 Marks)

QUESTION THREE (20 MARKS)

a) You have been asked to develop a cyber-security policy for Kilimall E-Business Company. Describe some of the security elements to be considered in the upcoming policy document   (4 Marks)

b) State three security limitations of using cash as a payment system in E-Business (3 Marks)

c) With an aid of a diagram show SSL Architecture as applied in Web security of E-Commerce platforms   (7 Marks)

d) List three advantages and three disadvantages of outsourcing Web design for E-Commerce portals   (6 Marks)

QUESTION FOUR (20 MARKS)

a) Provide examples of protocols used for secure electronic business transactions (5 Marks)

b) Explain the three types of cryptographic algorithm showing why we use the three cryptographic algorithms in securing the online business.   (6 Marks)

c) State the three most important functions of a digital wallet as used as one of the secure e-commerce payment systems (3 Marks)

d) Describe Participants in the SET system involved in securing online business (6 Marks)

QUESTION FIVE (20 MARKS)

a) Digital attacks have increased both in numbers and sophistication. Discuss three motivating factors contributing to this move in E-Business. (6 Marks)

b) Explain three Future Trends of E-Business Security (6 Marks)

c) Describe three network threats that a firewall does not protect against when used to protect E-Business platforms (3 Marks)

d) Discuss the best practices associated with securing agent-based systems in electronic business operations (5 Marks)