



UNIVERSITY OF EMBU

2018/2019 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE AND BACHELOR OF SCIENCE (COMPUTER SCIENCE)

CSC 452: INFORMATION SYSTEMS CONTROL AND AUDIT

DATE: APRIL 11, 2019

TIME: 2:00 PM – 4:00 PM

INSTRUCTIONS:

Answer Question ONE and ANY other two Questions

QUESTION ONE (30 MARKS)

- a) With the advancements in the technology, cyber frauds are also increasing day-by-day across the world. Explain the major reasons behind the rise of such frauds (3 marks)
- b) The role of Information Security Policy is to provide guidance to the people, who build, install, and maintain information systems. Explain why these rules are required (3 marks)
- c) Define the following technological terms as provided in the IT act (4 marks)
 - i) Access
 - ii) Affixing Electronic Signature
- d) As an IS auditor mandated to review the adequacy of data security controls; explain five factors you should evaluate (5 marks)
- e) Explain five major benefits of governance (5 marks)



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Knowledge Transforms

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ISO 9001:2015 Certified

- f) The objective of information system security is “the protection of the interests of those relying on information, and protect the information systems and communications that deliver the information from harm. Discuss three security objective attributes of information systems (6 marks)
- g) The assistant finance director for XYZ Company was fired after city officials discovered that she had used her access to city computers to cancel her daughter's Kshs 3000 water bill. An investigation revealed that she had embezzled a large sum of money from the company in this manner over a long period. She was able to conceal the embezzlement for so long because the amount embezzled always fell within a 2% error factor used by the company internal auditors.
- i) Explain the weaknesses that existed in the audit approach (2 marks)
 - ii) Explain internal control weaknesses that were present in the system (2 marks)

QUESTION TWO (20 MARKS)

- a) The management of ABC Ltd wants to design a detective control mechanism for achieving security policy objective in a computerized environment. As an auditor explain how audit trails can be used to support security objectives (8 marks)
- b) Different audit organizations go about IS auditing in different ways and individual auditors have their own favorite ways of working. Discuss six stages you would take as an auditor (12 marks)

QUESTION THREE (20 MARKS)

- a) Discuss two classification of information systems control on the basis of “Nature of Information System Resources” (4 marks)
- b) A company has decided to outsource a third party site for its alternate back-up and recovery process. Explain the issues to be considered by the security administrator while drafting the contract (6 marks)
- c) Discuss five major Boundary Control techniques used for protection of information systems (10 marks)



QUESTION FOUR (20 MARKS)

- a) Define the term control in information systems (2 marks)
- b) Information system performs important operational and managerial support roles in businesses and other enterprises. Discuss four categories of information systems (8 marks)
- c) In a computerized environment, the goals of asset safeguarding, data integrity, system efficiency and system effectiveness can be achieved only if an organization's management sets up a system of internal controls. Discuss five components of internal controls (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss the major techniques used to commit cyber frauds (10 marks)
- b) When risks are identified and analyzed, it is not always appropriate to implement controls to counter them. Discuss five Risk management strategies (10 marks)

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