UNIVERSITY OF EMBU

2017/2018 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

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

CSC 452: INORMATION SYSTEMS CONTROL AUDIT

DATE: APRIL 11, 2018   TIME: 11:00 AM – 1:00 PM

INSTRUCTIONS:

Answer Question ONE and ANY other two Questions

QUESTION ONE (30 MARKS)

a) Describe two roles of systems control in information systems.   (5 marks)

b) Explain two major information systems security concerns.   (5 marks)

c) Discuss different levels of management activities in management planning and control hierarchy   (5 marks)

d) Define the following terms:

    i)   Abstract System

    ii)   Physical System

    iii)   Entropy   (3 marks)

e) Describe the various controls that can be implemented to prevent fraud.   (5 marks)

f) Describe any four major requirements that an information system auditor should meet in order to carry out his work efficiently.   (4 marks)

g) Explain three applications of Expert Systems   (3 marks)

QUESTION TWO (20 MARKS)

a) What are the major benefits to be gained by an organization by conducting an information system audit? (4 marks)

b) Describe four challenges of conducting an information systems audit (4 marks)

c) The most difficult part in preparing a backup plan is to ensure that all critical resources are backed up. Discuss the resources that must be considered in the same. (6 marks)

d) Pan Saharan Credit Bank has a problem of their customer losing money from their accounts, it's suspected that their information system may be contributing to this problem. Discuss a solution to this problem as an information systems auditor.

(6 marks)

QUESTION THREE (20 MARKS)

a) Describe the following types of controls used in protecting information systems.

(9 marks)

    i) Detective controls

    ii) Preventive controls

    iii) Corrective controls

b) Explain how a firewall works in securing information systems (3 marks)

c) Audit techniques are understood to be all methods used to determine the facts of the matter. Briefly explain four auditing techniques. (8 marks)

QUESTION FOUR (20 MARKS)

a) Explain the various types of network security devices. (6 marks)

b) Describe the reasons why organizations fail to achieve their systems development objectives (6 marks)

c) Describe four advantages and three disadvantages of virtualizing a software

(6 marks)

d) Explain software integrity policies in brief (4 marks)

QUESTION FIVE (20 MARKS)

a) Explain the term cyber security and how it can be realized. (2 marks)

b) ABC bank has been experiencing interferences with their network, you are asked as an IS auditor to solve this problem. Discuss your solution. (8 marks)

c) XYZ Company developed an information system for the integration of various organizational processes. The company wanted to sell this system as an ERP solution, but any system has to posses few characteristics to qualify for a true ERP solution. What are those characteristics? Explain in brief. (5 marks)

d) Describe the following processes in brief:
   i) Forecasting
   ii) Fund management
   iii) Budget allocation
   iv) Material requirement planning
   v) Quality control (5 marks)

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