
CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF
COMPUTER SCIENCE

COSC 812: STRATEGIC INFORMATION SYSTEMS

STREAMS: MSC COMP SCI Y1S2 P/T

TIME: 3HOURS

DAY/DATE: WEDNESDAY 7/08/2019

2.30 P.M - 5.30 A.M.

INSTRUCTIONS:

- Answer all questions in section A and any other two questions from section B.
- No Reference Material is allowed in the exam Room.
- Write legibly on both sides of answer sheet.

SECTION A (COMPULSORY)

QUESTION 1 (COMPULSORY) [30 MARKS]

- a) Describe FIVE strategic advantages of information systems in businesses. (5 marks)
- b) Taking a business environment of your choice; explain how THREE management support systems are changing the business environment in order to meet their strategic goals. (6 marks)
- c) Discuss five reasons why an organization would opt to buy their information system instead of in-house development. (5 marks)
- d) Current organizations require Executive support systems to offer intelligent information, for strategic benefits, from their computerized systems. Outline FIVE of such intelligent information that can be provided by the system. (5 marks)
- e) A certain financial institution's business strategy had the following strategic objectives, among others.
- To enable seamless communication with its clients on a 24hrs basis
 - To enable automated mobile lending and payment of loans .
 - Incorporate dispensation of new currencies on their Automated teller machines

COSC 812

Develop FIVE information technology strategies that could ensure the above objectives are achieved; clearly indicating how they have been aligned to the business strategy. (5 marks)

f) A certain Cooperative society opted to strongly secure their systems to mitigate computer threats. Explain four threats that they were likely to face, and propose a security mechanism for each threat. (4 marks)

SECTION B (ANSWER TWO QUESTION FROM THIS SECTION)

QUESTION 2 [15 MARKS]

a) Upendo Cooperative society wanted to change their banking systems from manual to computerised system, for strategic advantage purposes. They chose to use the following data collection methods.

- i) Joint Application design
- ii) Brainstorming
- iii) Prototyping

Explain each of the above method of data collection; hence outline an advantage and a disadvantage of each of the above method of data collection. (9 marks)

b) Explain SIX business pressures that necessitate the development of ICT strategy. (6 marks)

QUESTION 3 [15 MARKS]

a) Assume you have been employed in a newly established production company, without any process control systems.

- i) Explain what is a process control system (1 mark)
- ii) Identify THREE process control systems that you would put in place, hence indicate how each process will be contributing to the strategic advantage of the company. (6 marks)
- iii) Outline the various infrastructure tools to put in place in order to achieve (ii) above (3 marks)

b) Describe FIVE ethical guidelines that Information Technology professionals in workplaces should adhere to. (5 marks)

QUESTION 4 [15 MARKS]

COSC 812

a) A certain telecommunication organization wanted to use balanced score card as an ICT strategic management tool. Develop for them a simple balanced score card chart with the following parameters: -

- i) At least TWO strategic objectives each focusing on finance, customers, internal processes, organization capacity (3 marks)
- ii) At least TWO Measures each under every strategic objective (3 marks)
- iii) At least TWO targets each under every strategic objective (3 marks)
- iv) At least TWO proposed ICT projects under every strategic objective (2 marks)

b) During organization change management, ICT plays an important role. Describe FOUR roles of ICT in change management (4 marks)

QUESTION 5 [15 MARKS]

a) You have been called upon to be part of a team to develop ICT policy document for a higher learning institution. You have been tasked to write the following sub-sections of the policy document.

- i) Internet access
- ii) Passwords
- iii) Harnessing with emerging technologies
- iv) Server security
- v) Decommissioning of ICT equipment

Write the sub-sections of the policy document. Ensure that each sub-section is about half a page and should have at least: - a statement, TWO strategic objectives, and an expected outcome. (15 marks)

.....