



Machakos University College

(A Constituent College of Kenyatta University)

University Examinations 2014/2015

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

EXAMINATION FOR DIPLOMA IN ACCOUNTANCY

MANAGEMENT INFORMATION SYSTEMS

Date: 9/12/2014

Time: 11:00-1:00 pm

INSTRUCTIONS

- Answer question ONE and any other TWO questions
- Don't write on this question paper

Question 1

- a) Define the term *data processing* as used in information systems. (2 marks)
- b) Outline **three** reasons why organizations require information. (3 marks)
- c) Outline any **four** qualities/characteristics of good information. (4 marks)
- d) Information in an organization can be classified with reference with the management level that it supports. Using a diagram, describe the **three** types of information in an organization. (6 marks)
- e) Describe the reasons why business organizations may be interested in artificial intelligence. (4 marks)
- f) Differentiate between an *open system* and a *closed system* as used in systems theory. (4 marks)
- g) Describe **four** benefits of computer networks to an organization. (4 marks)
- h) Fire by itself is a real problem to information systems. Outline *three* reasons why it is classified as a serious security threat. (3 marks)

Question 2

- a) A college student who had paid full fees for the term received his computer printed fees statement, and on observing it, he realised that it showed that he still had a balance of

Ksh 2000. When he approached the finance officer for clarification, he was told that it was a computer error. As a computer expert, account for this phenomenon. (4 marks)

- b) Describe **three** factors you would consider in determining the method of data processing to use. (6 marks)
- c) Briefly explain how the *central processor* is able to serve two or more users with different processing tasks simultaneously under time sharing processing. (6 marks)
- d) Distinguish between *sequential* file organization and *indexed sequential* file organization. (4 marks)

Question 3

- a) Describe Decision Support Systems as applied in an enterprise. (2 marks)
- b) Differentiate between *structured* and *unstructured decisions* in an organization. (4 marks)
- c) Describe **three** areas in an enterprise where transaction processing system can be majorly applied. (6 marks)
- d) Describe the following components of an Expert System:
 - i. Knowledge base;
 - ii. Inference engine;
 - iii. Explanation component;
 - iv. Knowledge acquisition component. (8 marks)

Question 4

- a) Explain the following terms as used in systems theory giving examples where necessary:
 - i. Feedback;
 - ii. Decoupling ;
 - iii. Synergy; (6 marks)
- b) Explain the following types of office automation systems:
 - i. Electronic data interchange;
 - ii. Electronic funds transfer. (4 marks)
- c) Explain why mobile banking (m-banking) has gained popularity in modern countries. (10 marks)

Question 5

- a) Michael porter gave a classical model of competitive strategies in which any business that wants to survive and succeed must develop and implement to effectively counter the competitive forces that it faces in its industry. Briefly explain **five** of these strategies. (10 marks)

- b) Differentiate between the following terms in respect to data communication and networks:
- i. LAN and WAN
 - ii. Bus topology and Star topology. (8 marks)
- c) Outline **two** counter measures against unauthorized access. (2 marks)