



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2011/2012

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN COMPUTER SCIENCE**

SCT 411: INFORMATION SYSTEMS MANAGEMENT II

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DATE: WEDNESDAY, 11TH APRIL 2012

TIME: 8.00 A.M – 10.00 A.M

INSTRUCTIONS

- Students from Computing and Information Technology to attempt questions in Section I.
- Students from Electronic and Electrical Engineering department to attempt questions in Section II

SECTION I (COMPUTER SCIENCE STUDENTS)

Attempt question ONE and any other TWO Questions from the same questions

QUESTION ONE (30 Marks)

- a) Define the following terms:
- i. Transaction Processing System (TPS) (1 Mark)
 - ii. Management Information Systems (MIS) (1 Mark)
 - iii. Executive Information System (EIS) (1 Mark)
 - iv. Strategic Information System (SIS) (1 Mark)
 - v. Artificial Intelligence (AI) (1 Mark)

b) . Describe the key characteristics of Management Information Systems (5 Marks)

c) Distinguish between structured and unstructured decisions (4 Marks)

d) Briefly explain the reasons why some information systems projects fail. (4 Marks)

e) Describe Decision Support System (DSS) in relation to organization functions.

(4 Marks)

f) Briefly explain the information system solution for operational and strategic functions.

(8 Marks)

QUESTION TWO (20 Marks)

a) Bring out the functions of an information system in an organization. (4 Marks)

b) Outsourcing is a major trend in the development and management of information systems. Discuss the advantages and disadvantages of outsourcing the IS/IT services

(6 Marks)

c) Business models are symbolic models which represent the operations of the organization by sets of logically linked and algebraic statements.

Discuss the various types of Computer based Information System models giving their descriptions and their functions. (10 Marks)

QUESTION THREE (20 Marks)

a) Briefly explain the following Information System development:

i) Online systems

(3 Marks)

ii) Web based systems (3 Marks)

iii) Mobile systems (3 Marks)

b) Using appropriate examples and illustrations bring out the End-User Computing and Office Automation based on any one of your answers for Question Three (a) above (11 Marks)

QUESTION FOUR (20 Marks)

- a) Distinguish between the Strategic Information System and Expert System. (4 Marks)
- b) In what major ways have information systems in business changed for the last 40 years? Highlight the key major changes in the trends of the information systems. (6 Marks)
- b) Construct a simple work breakdown structure for a Point of Sale Terminal (POST) with a client side and a server side that stores records on a database. (10 Marks)

QUESTION FIVE (20 Marks)

- a) Briefly explain the term Prototyping as used in Information Systems Development arena. (3 Marks)
- b) Discuss an application system development using prototyping model that focusing on how prototyping combined the steps of traditional systems development cycle of information system specialist and end users, (9 Marks)
- c) Using a well labeled diagram, prepare a template design view of an end user application of your choice. (8 Marks)

QUESTION ONE (30 Marks) SECTION II (SOFTWARE ENGINEERING)

Attempt question ONE and any other TWO questions from the same section

- a) Explain the following terms in relation to Organizational structure. (10 marks)
- i) Planning
 - ii) Organization
 - iii) Staffing
 - iv) Directing
 - v) Co-coordinating
- b) Clearly differentiate between the following terms (10 marks)
- i) E-business and E-commerce
 - ii) International information and external information
 - iii) Management and management information systems
 - iv) Closed decision making system' and 'open decision making system
 - v) Data and information
- c) Explain any four qualities of a manager (4 marks)
- d) Define any four basic components of information systems (4 marks)
- e) Define two factors that affect Return on Investment (ROI) in IT (2 marks)

Question Two (15 marks)

- a) Define the term Decision making (2 marks)
- b) Define the law of requisite variety in decision making (2 marks)
- c) Describe the Herbert Simon model of decision making (5 marks)
- d) Explain the problems in making rational decisions. (6 marks)

Question Three (15 marks)

- a) Explain any two management control system features. (3 marks)
- b) List and describe six reasons why information systems are so important for business today. (12 marks)

Question Four (15 marks)

- a) Describe five elements that Management Information system must contain (10 marks)
- b) Name and describe any three major functional subsystems in the organization. (5 marks)

Question Five (15 marks)

- a) Define the following terms (4 marks)
 - i) Integrated Management
 - ii) Direction
 - iii) Stakeholders
 - iv) Equitably
- b)
 - i) Define the term Information systems (1 mark)
 - ii) Discuss the five types of Information Systems (10 marks)

