



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

Faculty of Engineering and Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

**DIPLOMA IN INFORMATION TECHNOLOGY – DIT 10M
YR II SEM I**

ECS 2202: SYSTEMS ANALYSIS & DESIGN

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer booklet*

This paper consists of **TWO** sections **A & B**

Answer question **ONE (COMPULSORY)** in section **A** and any other **TWO** questions in section **B**

This paper consists of **THREE** printed pages

SECTION A – Answer all questions in this section (30 MARKS)

Question 1 (Compulsory)

- a) Describe the following (4 marks)
- (i) System theory
 - (ii) System decomposition
- b) State any **FIVE** features of a system (5 marks)
- c) Identify any **FIVE** elements of a system (5 marks)
- d) Explain the difference in meaning between the following. (6 marks)
- (i) Decoupling and Coupling
 - (ii) Negative feedback and Positive feedback
 - (iii) Open system and Closed system
- e) Why are there different types of information systems? (3 marks)
- f) State any **THREE** functions of information systems (3 marks)
- g) Differentiate between informal information systems and formal information systems (4 marks)

SECTION B (Answer any TWO questions) – 40 MARKS

Question 2

- a) Explain the term 'system analyst' (2 marks)
- b) Explain any **FOUR** roles of a system analyst (8 marks)
- c) Define the term 'Information System' (2 marks)
- d) Describe any **FOUR** components of information systems (8 marks)

Question 3

- a) Explain the term "Transaction Processing Systems" (3 marks)
- b) State any **FIVE** activities carried out by a Transaction Processing System (5 marks)
- c) State any **FOUR** examples of Transaction Processing Systems (4 marks)
- d) Briefly explain any **FOUR** data processing methods (8 marks)

Question 4

- a) What is Management Information Systems? (3 marks)
- b) Explain any **THREE** types of control in system development (5 marks)
- c) State any **FOUR** examples of Management Information Systems (4 marks)
- d) Briefly describe and **FOUR** types of reports produced by MIS (8 marks)

Question 5

- a) Describe any **THREE** levels of organizational information for management (9 marks)
- b) Briefly explain the following categories of information systems (6 marks)
 - (i) Informal Information System
 - (ii) Formal information system
- c) What are the most common types of information systems in an organization? (5 marks)