THE TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY (DICT)

EIS 2101: SYSTEMS ANALYSIS & DESIGN

END OF SEMESTER EXAMINATION
SERIES: AUGUST 2013
TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
- *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **TWO** printed pages

Question One (Compulsory)

a) Define the term Information System **(3 marks)**

b) Distinguish between formal and information systems **(8 marks)**

c) Explain any **THREE** roles of a systems Analyst **(9 marks)**

Question Two

a) Describe the **FOUR** fact finding methods **(8 marks)**

b) State any **TWO** advantages and **ONE** disadvantage of each of the fact-finding methods in z (a) above. **(12 marks)**

Question Three

a) Define the term "system development life cycle" **(2 marks)**

b) State the fundamental principles of system development **(6 marks)**

c) Explain the stages of the system development life cycle **(12 marks)**

Question Four

a) Define a decision table. **(2 marks)**

b) An insurance company invites applications from motorists regarding insurance cover. Applicants submit the following details.

- Name and address
- Number of accidents in the last ten years
- Licence type (provisional or full)

The acceptance rules are as follows:

- Motorists who are over 31 years old with no accidents in the last ten years and hold full licence are accepted for full cover
- Motorists who are over 31 years old with no accidents in the last ten years and hold a provisional licence are accepted for third party cover
- All others are rejected.

Construct a full limited entry decision table and reduce it using the dash rule. **(18 marks)**

Question Five

a) Draw and name the symbols used in constructing data flow diagrams. **(8 marks)**

b) Draw a data flow diagram for the following description. **(12 marks)**
When an invoice is received from a supplier, it is checked against a file of authorized purchases. If the invoice does not match an authorized purchase, then it is returned to the supplier with a querying letter. If the invoice matches an authorized purchase but is for incorrect amount, then it is returned to the supplier with a standard form. If the invoice reconciles, a payment authorization

is made out. A cheque is then sent to the supplier and the invoice and the authorization are filed.