THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

Faculty of Engineering & Technology

DEPARTMENT COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION & COMMUNICATION TECHNOLOGY (DICT 10M)

EIT 2211: SYSTEMS ANALYSIS & DESIGN II

END OF SEMESTER EXAMINATIONS

SERIES: DECEMBER 2011

TIME: 2 HOURS

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

This paper consists of **FIVE** questions.
Answer question any **THREE** questions
Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question one 20 marks

a) Define the term decision table.   (2 marks)

b) An insurance company invites applicants from motorists regarding insurance cover. Applicants submit the following details
- Name and address
- Numbers of accidents in the last ten years.
- Licence type (provisional or full)

The acceptance rules are as follows:-

(i) Motorists who are 31 years or over with no accidents in the last ten years and hold a full licence are accepted for full cover.

(ii) Motorists who are 31 years or over with no accidents in the last ten years and hold a provisional licence are accepted for third party cover.

(iii)   All others are rejected.

Construct a full limited entry decision table and reduce it appropriately.   (18 Marks)

Question two 20 marks

a) Define functional decomposition   (2 Marks)

b) Explain the properties of modules developed using functional decomposition.   (6 Marks)

c) Explain the benefits of using functional decomposition in system development.   (6 Marks)

d) With the aid of appropriate notations, explain **THREE** control structures supported by Jackson structured programming (JSP) technique.   (6 Marks)

Question three 20 marks

a) Define the term "System changeover"   (2 Marks)

b) Explain the different methods of changeover giving one advantage and one disadvantage of each
                                                                                  (18 Marks)

Question four 20 marks

a) Explain the term "System Control"   (2 Marks)

b) Explain the objectives of controls in a system   (14 Marks)

c) Explain any **TWO** types of information systems in an organization   (4 Marks)

Question five 20 marks

a) Explain the term system flowcharts   (2 Marks)

b) Draw and name any **five** process symbols for drawing system flowcharts. (10 Marks)

c) State any **four** advantages and four disadvantages of flowcharts (8 Marks)