THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION TECHNOLOGY – DIT/MAY2011

EIT 2211: SYSTEMS ANALYSIS & DESIGN II

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: MAY/JUNE 2012
TIME: 2 HOURS

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

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

Question 1 (compulsory – 30 marks)

a) Briefly explain any three roles of a system analyst   [3 marks]

b) Differentiate between   [8 marks]
       i) Formal and informal information systems
      ii) Logical and Physical Data Flow Diagrams

c) State the deliverables of each of the following SDLC stages   [4 marks]
     i) Problem definition
     ii) Feasibility study
     iii) System analysis
     iv) System design

d) Briefly explain the three features of SSADM   [3 marks]

e) State three objectives of system design   [3 marks]

f) Explain the importance of software maintenance   [3 marks]

g) Explain any three features of user interface design that affect the acceptance of computer systems by users   [6 marks]

Question 2

a)   Explain any **three** types of feasibility study   [6 marks]

b)   Briefly explain any four fact finding techniques   [8 marks]

c)   Construct a decision Table for the below description.   [6 marks]
A patient is charged according to the deductible and the type of visit as described in the following paragraph.

No charges are reimbursed to the patient until the deductible has been met. After the deductible has been met, reimburse 50% for Doctor's Office visits (D) or 80% for Hospital visits (H).

Question 3

a)   State the functions of information systems   [3 marks]

b)   Describe the **THREE** levels of organizational information for management   [9 marks]

c)   Explain any **THREE** types of conceptual models in requirements specification during system analysis   [6 marks]

d)   State any two activities carried out during systems Implementation   [2 marks]

Question 4

a) IIEC had launched an investigation on the viability of online transmission of results to the head office during 2012 general election. After the investigation, the team wanted to record the results of their investigation. State **FOUR** techniques that the team could have used.   [6 marks]

b) Describe any **THREE** conversion strategies during systems implementation   [9 marks]

c) Explain the terms module decoupling and module cohesion and state why they are desirable characteristics in modular software design   [5 marks]

Question 5

In Structured Systems Analysis and Design Methodology (SSADM), the design stages are numbered 4, 5 and 6.

    i)   Name the three design stages in SSADM.   [3 Marks]
    ii) Describe briefly the input to Stage 4 from Stage 3.   [3 Marks]
    iii) Explain briefly the activities in each of the three design stages.   [9 Marks]
    iv) Name the end-product of Stage 6 and summarize its contents.   [3 Marks]
    v) What follows SSADM Stage 6 the project life cycle   [2 marks]