University Examinations 2013/2014

STAGE II, EXAMINATION FOR DIPLOMA IN INFORMATION TECHNOLOGY

DIT 0203: SYSTEM ANALYSIS AND DESIGN

DATE: APRIL 2014   **TIME: 1½ HOURS**

INSTRUCTIONS: *Answer questions* **one** *and any other* **two** *questions*

QUESTION ONE - (30 MARKS)

a) (i) Define the term feasibility study.   (2 marks)
(ii) The output of feasibility study of the problem and proposed solution is the feasibility report. Outline four contents of a feasibility report.   (4 marks)

b)   Describe four qualities of a good system.   (4 marks)

c) State four roles of a system analyst in system development.   (4 marks)

d) Describe four reasons why projects fail.   (4 marks)

e) Describe two advantages and two disadvantages of building an information system using the traditional systems life cycle.   (8 marks)

f) What is CASE? How can it help system builders?   (4 marks)

QUESTION TWO – (15 MARKS)

a) Explain two constraints that may arise in the course of developing the new system.
(2 marks)
b) Describe three components of a system.   (3 marks)

c) Describe four elements of data flow diagrams.   (8 marks)

d) Why is staff training on new system so important?   (2 marks)

QUESTION THREE – (15 MARKS)

During development of Meru University Library system, there were many rules documented, that is a procedure for becoming a member of library, rule of r issuing books etc. The membership rule stated:"Anyone whose age is 18 or more than that can become a member of library. There are two types of memberships depending upon the duration of membership. First is for 6 months and other is for 1 year. 6 months membership fee if Rs 500 and 1 year membership fee is Rs 1000,"

a) Draw a decision tree for membership rule.   (8 marks)

b) Draw a decision table for membership rule   (7 marks)

QUESTION FOUR (15 MARKS)
a) State and describe four different methods of system changeover.   (8 marks)

b) Briefly describe three types of maintenance   (3 marks)

c) (i) Define software testing   (1 mark)

   (ii) Name any three types of testing   (3 marks)