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

SPECIAL/SUPPLEMENTARY EXAMINATION
SERIES: OCTOBER 2013
TIME: 2 HOURS

<u>**Instructions to Candidates:**</u>
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) (i) Explain TWO types of systems: **(4 marks)**

(ii) Name any FOUR System Analysis and Design tools and techniques **(4 marks)**

b) Outline any TWO logical structure techniques **(2 marks)**

c) (i) Outline the objectives of logical data structure (LDS) **(3 marks)**

(ii) Outline the contents of feasibility study report (system proposal) **(6 marks)**

(iii) Name and discuss the THREE conceptual models **(9 marks)**

(iv) Name any TWO levels of organizational information for management **(2 marks)**

Question Two

a) (i) Name and differentiate TWO types of data flow diagrams **(4 marks)**
(ii) Name TWO uses of data flow diagrams (DFDs) **(2 marks)**

b) (i) Outline the procedure for drawing Data Flow Diagram (DFD) **(5 marks)**
(ii) Name FOUR data processing methods **(4 marks)**

Question Three

With an aid of a diagram, describe the structured system analysis and design methodology (SSADM) hierarchical structure **(15 marks)**

Question Four

a) Name TWO advantages of structured system Analysis and design methodology (SSADM)
(2 marks)
b) Explain the aim of feasibility study. **(4 marks)**

c) Discuss the THREE levels of organizational information for management **(9 marks)**

Question Five

A company has one Chief Executive Officer who is not employed by the other companies. It has several divisions each of which employ several people. No employee works for more than one division.

Each division produces several products; no product is made by more than one division. Each product may be made out of one or more raw materials. Any raw materials may go into more products.

Construct a logical data structure (LDS) for the above information **(15 marks)**