THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

Faculty of Business & Social Studies

DEPARTMENT OF BUSINESS STUDIES

BACHELOR OF BUSINESS ADMINISTRATION

HBC 2124:   INFORMATION SYSTEMS ANALYSIS AND DESIGN

END OF SEMESTER EXAMS

SERIES: APRIL/MAY 2010.

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

1.   The paper consists of **FIVE** questions.

2.   Answer Question **1** (compulsory) and any other **TWO** questions.

3.   Write your student registration number on every answer sheet you use.

Q.1   (a)   Define "a system".   (2 marks)

    (b)   Describe **THREE** basic requirements of system.   (6 marks)

    (c)   (i)   Draw and label an organizational pyramid showing the

                    Decision levels.   (4 marks)

            (ii)   List at least **TWO** decisions at each level in c(i) above applicable

                    in a University/College.   (8 marks)

    (d)   Outline **FOUR** characteristics of a project.   (4 marks)

    (e)   How does a Software project differ with other projects.   (3 marks)

    (f)   Explain the means for controlling a project.   (3 marks)

Q.2 (a) Outline 'Systems theory'. (2 marks)

(b) Explain the difference between the following:

(i) Dynamic and Cybernetic system

(ii) Open and Closed system

(iii) Formal and Informal systems (6 marks)

(c) Explain why system objectives must be broken down. (3 marks)

(d) Explain why lower level objectives must be kept in line with the

higher level objectives. (3 marks)

(e) State **THREE** guidelines that must be observed when breaking

down the higher level objectives to lower level objectives. (6 marks)

Q.3 (a) Briefly outline the following systems development methodologies:

(i) SDLC/Waterfall

(ii) Prototyping (6 marks)

(b) For each methodology in (a) above, list:

(i) **Two** strengths

(ii) **Two** weaknesses

(iii) Situations where most appropriately applied

(iv) Situations where least appropriate to apply (12 marks)

Q.4 (a) Explain the functions of staff training. (6 marks)

(b) List factors that determine the extent of training to be carried out. (3 marks)

(c) Describe **THREE** methods used in changeover. (2 marks)

(d) List two file conversion methods. (2 marks)

Q.5 Miradi Ltd. intends to undertake a project. Initial information available about the project is as follows:

Activity	Preceding Activity	Duration (Weeks)	Men required
A	-	3	6
B	-	5	3
C	B	2	4
D	A	1	4
E	A	6	5
F	D	3	6
G	C, E	3	3

There is a labour force of 9 men available and each man is paid a fixed wage regardless of whether or not he is actively working on any day. Every man is capable of working on any of the seven activities. If extra labour is required during any day, men can be hired on a weekly basis at the rate of Ksh.1,000 per week.

(a) Draw a network diagram for the project. (14 marks)

(b) Draw a Gantt chart for the project. (4 marks)

(c) Determine the extra payment that must be made for the hired labour
if the project is to be carried out without any rescheduling. (2 marks)