TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:
BACHELOR OF BUSINESS ADMINISTRATION

HBC 2124: INFORMATION SYSTEMS ANALYSIS & DESIGN

END OF SEMESTER EXAMINATION
SERIES: AUGUST 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) List **THREE** factors used as a basis for selecting a systems project **(3 marks)**

b) Explain **TWO** key areas of cost benefit analysis as used in feasibility study **(4 marks)**

c) Explain **TWO** outputs from the definition phase **(3 marks)**

d) Describe **TWO** contents of a design specification **(4 marks)**

e) Describe three guidelines used in testing programmes at implementation phase. **(6 marks)**

f) Explain **THREE** factors used to assess a system performance **(6 marks)**

g) Describe **TWO** techniques used in fact gathering   **(4 marks)**

Question Two

a) Define the following terms:
    (i)   System
    (ii)   Systems Analysis   **(4 marks)**

b) Outline systems theory   **(4 marks)**

c) Differentiate between:
    (i)   Open and closed systems
    (ii)   Transaction and decision support systems
    (iii)   Positive and negative feedback   **(12 marks)**

Question Three

a) Use a diagram to explain functions at three different levels of an organization   **(8 marks)**

b) Explain **TWO** decisions that can be made at each level of the pyramid.   **(8 marks)**

c) State the software classifications that can be used at each level of the organization hierarchy.
        (4 marks)

Question Four

a) State **FOUR** characteristics of a software project   **(4 marks)**

b) List **FIVE** reasons that make software projects more problematic compared to other conventional projects.   **(5 marks)**

c) Briefly discuss the relationship between budgets and schedules in projects.   **(8 marks)**

d) Describe **THREE** risks in software projects.   **(3 marks)**

Question Five

a) Explain the following terms as used in network analysis.
    (i)   Critical path   **(2 marks)**
    (ii)   Activity   **(1 mark)**
    (iii)   Event   **(1 mark)**

b) Given the following data:

Activity	Preceding Activity	Duration
A	-	2
B	-	2
C	A	3
D	B	2
E	C, D	1
F	C, D	4
G	E	2
H	F	4
I	G, H	2

(i) Draw the network diagram for the project   **(12 marks)**

(ii) Identify the critical path and duration of the project   **(4 marks)**