KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2022/2023 ACADEMIC YEAR
FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY
CIT 1005- INTRODUCTION TO SYSTEM ANALYSIS AND DESIGN

Date: 14TH DECEMBER 2022
Time: 2:30PM – 4:30PM

INSTRUCTIONS TO CANDIDATES
ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS
QUESTION ONE (30 MARKS)

a) Explain the term information technology as used in systems analysis and designs   (2 Marks)
b) Outline two characteristics of a knowledge based system.   (2 Marks)

c) Outline five types of system users that could be found in organizations.   (5 Marks)

d) Differentiate between open questionnaire and closed questionnaire as used in data

collection.   (4 Marks)

e) Rita was required to investigate the advantages of a closed loop system. Explain five advantages
that she likely to have identified.   (5 Marks)
f) Highlight various tools and techniques used for system development   (5 Marks)
g) Brian intends to carry out system testing with users in order to ascertain that it meets their
requirements. He prefers to release trial versions to users in order to achieve his objective.
  i) Explain the type of testing strategy employed by Brian.   (2 Marks)
  ii) Explain two drawbacks of the strategy explained in (i)   (4 Marks)

QUESTION TWO (20 MARKS)

a) Describe the system development life cycle   (10 Marks)
b) Discuss the main role of a system analyst in a software project management   (3 Marks)
c) Using your own words define "effective system"   (2 Marks)
d) Discuss main characteristics of user interface   (5 Marks)

QUESTION THREE (20 MARKS)

a) State and explain the three advantages and two disadvantages of using questionnaires as a
technique   (5 Marks)
b) Explain any three desirable properties of good system design   (6 Marks)
c) Describe software usability   (2 Marks)
d) Identify the main factors contributing to software usability   (4 Marks)
e) Explain the advantages of flow chart   (3 Marks)

QUESTION FOUR (20 MARKS)

a) Define the following terms as used in System Analysis and Design.   (10 Marks)
   - i.   System
   - ii. Sub-System
   - iii. System Design
   - iv. Information System
   - v.   Feasibility.

b) Discuss different types of system in System Analysis and Design.   (10Marks)

QUESTION FIVE (20 MARKS)

a) With the aid of a sketch in each case, outline three components of system flow chart.   (5 Marks)

b) Outline the strengths of object oriented methodology as used in system development   (5Marks)

c) Differentiate between black box and white box testing methods.   (5 Marks)

d) Paul intends to use case diagram to analyze a proposed information system. Outline five
    advantages he would realize while using the tools.   (5 Marks)