



Kasarani Campus
Off Thika Road
Tel. 2042692 / 3
P.O. Box 49274, 00100
NAIROBI
Westlands Campus
Pamstech House
Woodvale Grove
Tel. 4442212
Fax: 4444175

KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
FIRST YEAR, SECOND SEMESTER EXAMINATION
FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY
CIT 1005: SYSTEMS ANALYSIS AND DESIGN

Date: 16TH APRIL 2024

Time: 8:30AM-10:30AM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Distinguish between the following terms as used in system analysis and design;
- i) Logical and Physical design. (2 Marks)
 - ii) Milestones and Deliverables. (2 Marks)
 - iii) Systems validation and System Verification. (2 Marks)
 - iv) Probabilistic and deterministic systems (2 Marks)
- b) Explain six roles played by the system analyst during information system development. (6 Marks)
- c) Explain four reasons why information system projects may fail. (4 Marks)
- d) Explain the meaning of the following terms; (4 Marks)
- i) Database architecture.
 - ii) Database management system.
- e) As a system analyst on the development team, you chair a meeting to define the aims of system improvement with the project owners and users. Describe any three reasons why system improvement is done. (6 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. (10 Marks)

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 (5 Marks)
- 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)