



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2023/2024

FIRST YEAR, SECOND SEMESTER EXAMINATION FOR THE DIPLOMA IN  
INFORMATION TECHNOLOGY

### CIT 2213: SYSTEM ANALYSIS AND DESIGN

DATE: APRIL 2024

TIME: 1<sup>1</sup>/<sub>2</sub> HOURS

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#### INSTRUCTIONS:

1. Answer Question ONE, and any other TWO
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#### QUESTION ONE (30 MARKS)

- a. Differentiate the following as used in system analysis and design
  - i) System and information system (2 marks)
  - ii) Legal feasibility and Economic feasibility. (2 marks)
  - iii) Physical design and logical design (2 marks)
- b. Describe three functions of an information system. (6 marks)
- c. Highlight two measures of project success. (2 marks)
- d. Describe three components of a system. (6 marks)
- e. Outline four importance of system analysis. (4 marks)
- f. Describe three components of a Data flow diagram. (6 marks)

#### QUESTION TWO (15 MARKS)

- a. Explain three roles of a system analyst. (6 marks)
- b. Discuss three activities involved in the system implementation phase of system development life cycle. (9 marks)



### QUESTION THREE (15 MARKS)

- a) Outline three qualities of good documentation (3 Marks)
- b) Explain three purposes for maintenance (6 Marks)
- c) It is possible for system analysis involved in the introduction of new or upgraded computer systems to encounter resentment and opposition from existing employees. This may take many forms from outright opposition active hostility towards the new system during fact-finding interviews.
  - i. Outline three reasons for employees to react in his manner (3 Marks)
  - ii. Outline three measures that can be taken by the system analyst to alleviate this resistance (3 Marks)

### QUESTION FOUR (15 MARKS)

- a. During development of Meru University Library System, there were many rules documented, that is a procedure for becoming a member of library, rule for issuing books etc. The membership rule stated: “Anyone whose age is 18 or more than that can become a member of library. There are two types of memberships depending upon the duration of membership. First is for 6 months and other is for 1 year. 6 months’ membership fee is KSh 1000 and 1-year membership fee is KSh 1500.”
- i. Draw a decision tree for the membership rule (8 marks)
  - ii. Draw a decision table for the membership rule (7 marks)