



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: +254(0) 799 529 958, +254(0) 799 529 959, +254 (0)712 524 293

Website: www.must.ac.ke Email: info@mucst.ac.ke

UNIVERSITY EXAMINATIONS 2023/2024

FIRST YEAR, SECOND SEMESTER EXAMINATION FOR DIPLOMA IN INFORMATION TECHNOLOGY AND CERTIFICATE IN INFORMATION TECHNOLOGY

CIT 1213/ CIT 2213: SYSTEMS ANALYSIS AND DESIGN

DATE: DECEMBER 2024

TIME: 1½ HOURS

INSTRUCTIONS: Answer Question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

- a) Differentiate the following as used in system analysis and design
 - i. System analysis and system design (2 Marks)
 - ii. System and project (2 Marks)
 - iii. Functional and non-functional requirements (2 Marks)
 - iv. Technical feasibility and legal feasibility. (2 Marks)
 - v. Direct changeover and parallel changeover (2 Marks)
- b) Describe two roles of a system analyst during SDLC. (4 Marks)
- c) Outline three types of DFDs. (6 Marks)
- d) Outline three advantages of prototyping. (3 Marks)
- e) Outline two characteristics of a good system. (4 Marks)
- f) Describe the importance of documentation in system analysis and design. (3 Marks)



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QUESTION TWO (15 MARKS)

- a) Explain two methods of fact finding. (4 Marks)
- b) Describe what happens during the design phase of SDI-C. (6 Marks)
- c) What activities are involved in the deployment phase of the SDLC? (5 Marks)

QUESTION THREE (15 MARKS)

- a) Structured walkthrough is a planned review of system by people not involved in its development effort. describe three reasons why it's important carry out a structured walkthrough during system development. (6 Marks)
- b) Describe two activities carried out during the system implementation phase of the System Development Life Cycle. (4 Marks)
- c) Explain two types of information systems. (5 Marks)

QUESTION FOUR (15 MARKS)

- a) Discuss three differences between waterfall model and the spiral model. (5 Marks)
- b) A fast food joint has expanded the number of outlets around a city. At the moment the outlets use conventional cash tills. The fast food joint would like to implement a Point-Of-Sale (POS) system in all its outlets with linkages to a centralized computer. Assume you are the systems analyst and you have been asked to assist in the conversion process from the existing system to the new one.
 - i. Describe the change-over options that are available and recommend the most suitable method for the new system. [10 Marks]