



TECHNICAL UNIVERSITY OF MOMBASA
INSTITUTE OF COMPUTING AND INFORMATICS

Select department

UNIVERSITY EXAMINATION FOR:

BSIT/AUG2021/J/S-FT

CSE 4403: SOFTWARE DEVELOPMENT AND MANAGEMENT

END OF SEMESTER EXAMINATION

SERIES:DECEMBER2024

TIME:2HOURS

DATE:Pick DateDec2024

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- a. Explain the following types of documentations used in system analysis and design
- i. Program documentation (3 marks)
 - ii. System documentation (3 marks)
 - iii. Operations documentation (2 marks)
 - iv. User documentation (2 marks)
- b. Extensive documentation is needed throughout the life cycle of a computer system. The analysis and design stages generate part of the overall documentation.
- Name the main items of documentation, state their purpose, and describe briefly their contents under the following headings:
- i. Project management (4 marks)
 - ii. Systems analysis stage (4 marks)
 - iii. Systems design stage (4 marks)
 - iv. Development (implementation) (4 marks)

v. User documentation (4 marks)

Question two

- (a) With a good illustration explain stages followed during system development in waterfall method. (8 marks)
- (b) Discuss the major types of Information systems. (6 marks)
- (c) What is structured analysis? Explain its importance (6 marks)

Question three

- (a) Describe the role of modularity and abstraction in software design. How do these principles contribute to creating a robust and maintainable system? (6 marks)
- (b) Describe the four types of software maintenance: corrective, adaptive, perfective, and preventive. Provide examples of each type. (8 marks)
- (c) The data flow diagram and data dictionary are some of tools used in structured analysis. Define and explain the importance of these tools in system analysis project. (6 marks)

Question four

- a. Explain the appropriateness of economic and behavioral feasibilities. (6 marks)
- b. Give detailed differences between a Data Flow Diagram and an Entity Relationship Diagram (6 marks)
- c. Discuss iterative and incremental development models in software development process. (8 marks)

Question five

- a. Explain some of the advantages that make an interview better in comparison to other finding methods. (6 marks)
- b. Explain all the inter-related types of feasibility studies. (4 Marks)
- c. Write short notes on the following
 - i. System (3 Marks)
 - ii. Feasibility Analysis (4 Marks)
 - iii. Functions of System Analyst (3 Marks)