

TECHNICAL UNIVERSITY OF MOMBASA

UNIVERSITY EXAMINATION FOR:
Diploma in Information Communication Technology

Unit Code: EIT 2210
Unit Name: Object Oriented Analysis and Design
End of semester Examination

SERIES: April 2016

Paper 2
Time: 2 Hours

Attempt any **THREE** questions

Question 1 (20 Marks)

- a) Discuss advantages and disadvantages of Object Orient Design [10 Marks]
- b) Describe the advantages that the object-oriented approach to systems analysis and design has over the traditional systems development life cycle. In particular, discuss the limitations of SDLC and how OOSAD overcomes these limitations. [10Marks]

Question 2 (20 Marks)

- a) Identify and describe the modeling and diagramming techniques that are used for the structured, data-oriented, and object oriented analysis and design methodologies. [6 Marks]
- b) Describe the main role of a systems analyst in the systems development process. [4 Marks]
- c) Discuss several characteristics of successful systems development teams. [4 Marks]
- d) Define and describe the relationship between methodology, technique, and tool in terms of their contributions to information systems development. Give examples of each of these terms. [6 Marks]

Question 3 (20 Marks)

- a) Describe the following UML diagrams:
 - i. Class diagrams
 - ii. Object Diagrams
 - iii. Deployment Diagrams
 - iv. Use Case Diagrams [8 Marks]
- b) Explain any two advantages and one disadvantage of use case [4 Marks]

c) Briefly discuss the phases of the Unified Process

[8 Marks]

Question 4 (20 Marks)

a) Distinguish between functional and non-functional requirements

[4 Marks]

b) Discuss advantages of use case

[8 Marks]

c) Describe any FOUR limitation of use case

[8 Marks]

Question 5 (20 Marks)

a) Explain the following concepts giving an example as applied to Object Oriented Analysis and Design (OOAD):

- I. Class
- II. Object
- III. Encapsulation
- IV. Polymorphism
- V. Inheritance

[10 Marks]

b) Identify and describe four types of skills a person needs in order to succeed as a systems analyst. For each type of skill, indicate the tasks and roles in which the analyst will utilize the skill.

[10 Marks]