TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION

TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN INFORMATION COMMUNIATION TECHNOLOGY

EIT 2205: OBJET ORIENTED ANALYSIS & DESIGN

SPECIAL/ SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

(Paper 2)

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 any THREE questions.

Do not write on the question paper.

Question 1 (20 Marks)

a) Discuss advantages and disadvantages of Object Orient Analysis & Design   **[10 Marks]**

b) Describe the disadvantages of Structured systems development life cycle (SDLC)   **[6 Marks]**

c) Discuss how Object Oriented Design overcomes the limitations of Structured SDLC   **[4 Marks]**

Question 2 (20 Marks)

a) Differentiate between functional and non-functional requirements   **[2 Marks]**
b) List any four functional and four non-functional requirements   **[4 Marks]**
c) Discuss three categories of testing   **[6 Marks]**
d) Outline any four advantages and four disadvantages of DFD diagrams   **[8 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)   Describe the types of relationships between use cases   **[4 Marks]**
c)   Briefly discuss the phases of the Unified Process   **[8 Marks]**

Question 4 (20 Marks)

a)   List four uses of deployment diagrams   **[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)   Using suitable diagrams explain the following types of inheritances:

      I.   Single inheritances
      II.   Multiple inheritances
      III.   Multilevel Inheritances   **[6 Marks]**

c)   Identify and describe four types of skills a person needs in order to succeed as a systems analyst. **[4 Marks]**