TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN INFORMATION COMMUNICATION TECHNOLOGY

EIT 4106: APPLICATION BUILDING

SPECIAL SUPPLEMENTARY EXAMINATION

SERIES SEPT. : Select series2017

TIME:2HOURS

DATE:19Sep2017

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attemptquestion ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

QUESATION ONE (30 MARKS)

Using relevant examples discuss the following OOP concepts

i.	Object	[6 marks]
ii.	Class	[6 marks]
iii.	Inheritance	[6 marks]

iv. Polymorphism   [6 marks]
v. Abstraction   [6 marks]

QUESATION TWO (20 MARKS)

A. Human-Computer Interaction is a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use. Using reverent examples discuss how the following principles are realized in HCI

    i.   Task Analysis   [4 marks]
    ii. Prototyping   [4 marks]
    iii. User Interface   [4 marks]
    iv. Interaction Design   [4 marks]
    v.   Evaluation   [4 marks]

QUESATION THREE (20 MARKS)

Using UML Class Diagram Notations describe the following OOP concepts

    i.   Association   [5 marks]
    ii. Cardinality   [5 marks]
    iii. Inheritance   [5 marks]
    iv. Composition   [5 marks]

QUESATION FOUR (20 MARKS)

A transaction is the DBMS's abstract view of a user program, which composes of a series of, reads and writes of database objects. Using relevant examples discuss the following ACID properties of a transaction

    i.   Atomicity   [5 marks]
    ii. Consistency   [5 marks]
    iii. Isolation   [5 marks]
    iv. Durability   [5 marks]

QUESATION FIVE (20 MARKS)

Using a well label diagram discuss the following phases of SDLC

    i.   Requirement Analysis   [5 marks]
    ii. Design   [5 marks]
    iii. Coding   [5 marks]
    iv. Testing   [5 marks]
    v.   Maintenance   [5 marks]