

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 series 2017

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. Polymorphismv. Abstraction[6 marks][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]
	Design	[5 marks]
iii.	Coding	[5 marks]
iv.	Testing	[5 marks]
v.	Maintenance	[5 marks]