

**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2016/2017**

**YEAR 2 SEMESTER 1 EXAMINATIONS FOR THE DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY**

**DIT 0305: OBJECT ORIENTED ANALYSIS AND DESIGN**

**DATE: JULY 2017 TIME: 1.5 HOURS**

QUESTION ONE

ai) Define object orientation (OO) and object oriented design (OOD) (4 marks)

ii) Explain how encapsulation and polymorphism can aid reusability

(3 marks)

bi) Give at least three goals of uml (3 marks)

ii) Explain any five modeling views (10 marks)

ci) State the main purpose of the use-case diagram (3 marks)

ii) Explain any four basic concept of object-oriented programming (8 marks)

QUESTION TWO (15 MARKS)

ai) What is UML (2 marks)

ii) What is Architecture involves (3 marks)

bi) Draw a diagram that deprit the states of the cpu (5 marks)

ii) Explain the aspects of an object (5 marks)

QUESTION THREE (15 MARKS)

a) What is a conceptual model (2 marks)

b) Define the following terms

i) An actor

ii) A use case

iii) a scenario (6 marks)

c) What is a model? Why is model important in OOAD (7 marks)

QUESTION FOUR (15 MARKS)

a) Differentiate between analysis phase ad design phase as used in UML

(3 marks)

b) Using diagram differentiate between object and class diagram (3 marks)

c) A bank has many branches in each zone, one branch is designated as the zonal head office that supervised the other branches in that zone. Each branch can have multiple accounts and loans. An account may be either a saving account or a current account. A customer may open both a saving account and a current account. However, a customer must not have more than one savings account or current account. A customer may also procure loans from the bank. Draw the corresponding class diagram (9 marks)