

W1-2-60-1-6

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2014/2015**

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE**

**OF BACHELOR OF BUSINESS INFORMATION TECHNOLOGY**

**BBT 2205: OBJECT ORIENTED ANALYSIS AND DESIGN**

**DATE: AUGUST 2015 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

1. Briefly describe the following OO concepts: [4 marks]
2. Class
3. Object
4. Polymorphism
5. Inheritance
6. Describe the uses of the following structure diagrams: [6 marks]
7. Class diagram
8. Deployment diagram
9. Package diagram
10. Discuss the types of relationship used by use cases. [9 marks]
11. Explain THREE loses of UML [3 marks]
12. Describe object oriented analysis [4 marks]
13. Differentiate between ‘method’ and ‘methodology’ [4 marks]

**QUESTION TWO (20 MARKS)**

1. Define robustness analysis [2 marks]
2. Identify any THREE elements of a UML robustness analysis diagram. [6 marks]
3. Discuss the characteristics of a class diagram. [6 marks]
4. Discuss the stages covered during the UML development process. [6 marks]

**QUESTION THREE (20 MARKS)**

1. Discuss the class-level relationships in OO. [10 marks]
2. Explain the difference between sequence diagrams and collaboration diagrams. [4 marks]
3. Differentiate between the following as used in OO: [6 marks]
4. Model and modeling
5. Functional requirements and non-functional requirements
6. Actors and scenario

**QUESTION FOUR (20 MARKS)**

A client has given you a contract to supply his business with a system that will

help him/her run her/his IT training centre. Using one of the SDLC approaches,

explain how you will come up with the system. Show the main activities to do

in each stage of the development until it is working.

**QUESTION FIVE (20 MARKS)**

1. Discuss FOUR advantages of using OO methodologies as opposed to

traditional methodologies. [6 marks]

1. Explain why modeling is commonly used in OO. [4 marks]
2. Booch, Jacobson and Rumbaugh are key in OO methodologies,

especially UML. Discuss the method advocated by each man. [6 marks]

1. Explain any FOUR limitations or problems associated with using UML

and other structural analysis methods. [4 marks]