



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2015/2016**

**FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR SCIENCE IN EARTH SCIENCE WITH  
INFORMATION TECHNOLOGY**

**MAIN CAMPUS**

**NGA 107: INTRODUCTION TO STRATIGRAPHY AND  
STRUCTURAL GEOLOGY**

Date: 22<sup>nd</sup> April, 2016

Time: 8.30 - 10.30 am

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**INSTRUCTIONS:**

- Answer question ONE and any other TWO questions.
- Sketch maps and diagrams should be used whenever appropriate.



**NGA 107: INTRODUCTION TO STRATIGRAPHY AND STRUCTURAL  
GEOLOGY**

1. a) Explain the use of graded beddings, cross beddings and unconformities in determining the way-up structure 10marks  
b) Describe the use of index fossils in determining the ages of fossil bearing rocks 4mks  
b) Describe any four principles of stratigraphy 16marks
2. Describe weathering and the types of weathering processes 20marks
3. Examine the stratigraphic hierarchy and its use in the correlation of rock strata 20marks
4. a) Write precise notes on the following;  
i) Dip 4marks  
ii) Plunge and plunge lines 4marks  
iii) Strike and strike lines 4marks  
b) Explain how geological maps are made 8marks
5. a) Describe the fold geometry 10marks  
b) Discuss any five causes of folding 10marks
6. a) Examine the different types of sediments transportation and depositional mechanisms 12marks  
b) Describe the classification of faults based on the direction of dip 8marks