



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2013/2014**

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

**(MAIN CAMPUS)**

**NGA 211: PRINCIPLES OF GEOLOGY**

*Date: 24<sup>th</sup> March, 2014*

*Time: 11.15am – 1.30pm*

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**INSTRUCTIONS:**

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

## NGA 211: PRINCIPLES OF GEOLOGY

1. a) Write short notes on the following:
  - i. Catastrophic uniformitarianism. [6 marks]
  - ii. Continental drift theory. [6 marks]
  - iii. Law of superposition. [4 marks]
- b) Describe different scales with which sediment grain size can be compared. [6 marks]
- c) Discuss the classification and flow characteristics of volcanic rocks. [8 marks]
2. Explain the major types of economic minerals and their associated uses. [20 marks]
3. Discuss types of metamorphism and factors that influence metamorphism. [20 marks]
4. Describe ways in which sediments and particles can be transported. [20 marks]
5. a. Discuss the types of seismic waves. [10 marks]  
b. Examine scales of earthquake intensity and magnitude determination. [10 marks]
6. Explain the principle classes of geological structures and their mode of formation. [20 marks]