



# MASENO UNIVERSITY

## UNIVERSITY EXAMINATIONS 2012/2013

SECOND YEAR SECOND SEMESTER EXAMINATIONS  
FOR THE DEGREE OF BACHELOR OF SCIENCE IN  
EARTH SCIENCE WITH INFORMATION TECHNOLOGY  
(MAIN CAMPUS)

**NGA 210: QUATERNARY GEOMORPHOLOGY OF  
EAST AFRICA**

*Date: 16<sup>th</sup> July, 2013*

*Time: 11.00 a.m. – 1.00 p.m.*

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### INSTRUCTIONS:

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

## NGA 210: QUATERNARY GEOMORPHOLOGY OF EAST AFRICA

1. a) Write short notes on the following:
  - i). Eustatic changes (4 marks)
  - ii). Gamblian paleoclimates (6 marks)
  - iii). Documentary records in paleoenvironmental reconstructions (6 marks)
- b) Examine two palaeoclimatic proxy methods used to reconstruct past climate dynamics (8 marks)
- c) Discuss palaeomagnetism method of dating earth materials (6 marks)
2. Examine the Pan African Mozambique Orogenic Belt (20 marks)
3. Explain the evolution and areal extent of the following in Eastern Africa during Quaternary Period:
  - a) Lakes sediments (10marks)
  - b) Fluvial sediments (10 marks)
4. Discuss the effects of Anthropocene and Anthropogenic age in Eastern Africa during the Quaternary Period (20 marks)
5. Examine the major evolutionary changes on the Kenyan coastal landforms during Quaternary Period. (20 marks)
6. Discuss the volcanicity and evolution of the East African Rift System. (20 marks)