



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2014/2015

DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION, BACHELOR OF ARTS AND BACHELOR OF SCIENCE

AGE 301: PHYSICAL GEOGRAPHY III

DATE: Thursday 30th April 2015

TIME: 4.30p.m-6.30p.m

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INSTRUCTIONS: *ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS;
AT LEAST ONE QUESTION FROM EACH SECTION.
USE ILLUSTRATIONS AS APPROPRIATE.*

SECTION A: (ATMOSPHERE AND BIOSPHERE)

Question 1

- i. Explain the influence of latitude, surface properties, and topography on global distribution of temperature. [6 marks]
- ii. Differentiate between:
 - a. 'Polar' or 'Tropical' air masses [4 marks]
 - b. 'Continental' or 'Maritime' air masses [4 marks]
 - c. 'Genetic' and 'Generic' climate classification. [4 marks]
 - d. 'Astronomical' and 'Man-made' climate change. [4 marks]
 - e. 'Biosphere' and 'Ecosystem'. [4 marks]
 - f. 'Disjoint' and 'Endemic' species distribution pattern. [4 marks]

SECTION B: (ATMOSPHERE)

Question 2

- a) Describe the relationship between ozone depletion and global warming. [10 marks]
- b) Explain how clearing of land for agriculture affects heat balance. [10 marks]

Question 3

Discuss how orography and aspect influence moisture distribution patterns. [20 marks]

SECTION C: (BIOSPHERE)

Question 4

Describe how solar energy availability influences:

- a) Carrying capacity of an ecosystem. [10 marks]
- b) Temporal changes in growth and developments in plants. [10 marks]

Question 5

Describe how local and global climates influence the distribution patterns of organisms. [20 marks]