



MACHAKOS UNIVERSITY COLLEGE

**(A Constituent College of Kenyatta University)
University Examinations for 2015/2016 Academic Year**

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

**SECOND SEMESTER EXAMINATION FOR
BACHELOR OF EDUCATION (SCIENCE)
BACHELOR OF EDUCATION
BACHELOR OF (ARTS)**

AGE 301: PHYSICAL GEOGRAPHY III

Date: 9/8/2016

Time: 2:00 – 4:00 PM

INSTRUCTIONS:

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 Marks)

- a) Distinguish the terms climatic elements and climatic controls. (5 marks)
- b) Define the following terms. (10 marks)
 - (a) Temperature Inversion
 - (b) Air mass
 - (c) Cloud seeding
 - (d) Biodiversity
 - (e) Tolerance limits
- c) Differentiate the terms Climate change and global warming. (5 marks)
- d) Discuss the theory of climax community. (5 marks)
- e) With the aid of a diagram, describe the physical and chemical properties of soil (5 marks)

QUESTION TWO (20 MARKS)

- a) Compare and contrast genetic and generic climatic classification schemes. (10 marks)
- b) Discuss the human activities in your home County that are likely to lead to climate change and how they can be addressed. (10 marks)

QUESTION THREE (20 MARKS)

Discuss the causes and effects of human induced pressures on any one of forest ecosystems in Kenya. (20 marks)

QUESTION FOUR (20 MARKS)

- (a) Explain how the following factors affect the pattern and distribution of living organisms in an ecosystem: Edaphic, Competition, Topography, Anthropogenic (10 marks)
- (b) Explain the stages of ecological succession in an ecosystem following a catastrophic disturbance by a Tsunami. (10 marks)

QUESTION FIVE (20 MARKS)

Describe the soil conservation and management measures used by farmers in your home County. (20 marks)