



MACHAKOS UNIVERSITY COLLEGE

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

SCHOOL OF AGRICULTURE & NATURAL RESOURCES

DEPARTMENT OF AGRICULTURE

FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT)

ECD 109: ECOLOGY AND HUMAN ADAPTATION

Date: 2/12/2015

Time:

Instructions: Answer Three (3) Questions. Question One Is Compulsory.

1. a) Define the following terms :
 - i. Human Ecology (2 marks)
 - ii. Natural selection (2marks)
 - iii. Homeostasis (2 marks)
 - iv. Eutrophication (2 marks)
 - v. Niche (2 marks)
- b) Describe the 4 categories of services provided by the ecosystem. (10 marks)
- c) Describe four each of the positive and negative inter species interrelationships and give examples. (10 marks)
2. a) The Malthusian theory and the theory of evolution are key concepts with regards to human ecology and population regulation. Discuss (10 marks)
- b) Explain the concept of limits to growth and tragedy of the commons (10 marks)
3. Describe the relevance of the hydrological and carbon cycle and their relevance to man and the environment.
4. a) Differentiate between deep ecology and Frontier economics. (10 marks)
- b) Explain which resource management paradigm would be most suited to attain sustainable development in view of the current trends in kenya? (10 marks)
5. Discuss the global environmental challenges. (20 marks)