



MACHAKOS UNIVERSITY

University Examinations for 2017/2018

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES AND COMMUNITY
DEVELOPMENT

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF
ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT)

ECD 415: POVERTY, ECOSYSTEMS AND HUMAN WELL-BEING

DATE: 4/12/2017

TIME: 11.00-1.00 PM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Citing relevant examples, discuss the concept of Total Economic Value (TEV) as used in valuation of ecosystem services. (10 marks)
- b) Discuss the role of NEMA in ensuring sustainability of ecosystems and ecosystem services in Kenya (10 marks)
- c) Discuss how the indicators developed for the Convention on Biological Diversity in relation to their 2010 target can be applied in protection of the Mara ecosystem in Kenya. (10 marks)

QUESTION TWO (20 MARKS)

Discuss the different types of ecosystem services and their linkages to human well-being (20 marks)

QUESTION THREE (20 MARKS)

- a) Discuss the factors to consider in a scenario building exercise to assess the future of ecosystem services and human well-being in the Mau ecosystem (10 marks)
- b) Discuss, using relevant examples, to what extent ecosystem goods and services guarantee achievement of the Sustainable Development Goals (SDGs) (10 marks)

QUESTION FOUR (20 MARKS)

- a) Citing relevant examples, discuss the factors contributing to diminishing ecosystem services from the key water towers in Kenya (10 marks)
- b) Using examples, discuss how integrating ecosystem value into policy and decision making process presents a feasible opportunity for sustainable management of ecosystems in Kenya (10 marks)

QUESTION FIVE (20 MARKS)

Discuss various steps that can be adopted in the assessment of any ONE given ecosystem in Kenya (20 marks)