



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES AND COMMUNITY DEVELOPMENT

ECD 415: POVERTY, ECOSYSTEMS AND HUMAN WELL-BEING

DATE: 8/5/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS: Answer question ONE and any other TWO questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain the following concepts citing relevant examples
 - i) Ecosystems (2 marks)
 - ii) Human well-being (2 marks)
 - iii) Ecosystem assessment (2 marks)
 - iv) Ecosystem services (4 marks)
- b) As a consultant hired for the assessment of the Mara ecosystem, discuss the indicators you would consider in measuring the integrity of the ecosystem. (10 marks)
- c) Discuss key factors to consider in developing scenarios for assessment of potential changes in future supply of ecosystem services and human well-being. (10 marks)

QUESTION TWO (20 MARKS)

Using marine resources in Kenya as an example, discuss the different types of ecosystem services and their linkages to human well-being.

QUESTION THREE (20 MARKS)

Discuss, using relevant examples, the contribution of ecosystem goods and services in the attainment of the Sustainable Development Goals (SDGs).

QUESTION FOUR (20 MARKS)

Discuss the general procedure that can be adopted in the assessment of any ONE given ecosystem in Kenya and highlight the significance of public participation in each step.

QUESTION FIVE (20 MARKS)

- a) Citing relevant examples, discuss the factors contributing to diminishing ecosystem services from the key water towers in Kenya (10 marks)
- b) Evaluate the significance of NEMA in the sustainable management of ecosystems and ecosystem services in Kenya. (10 marks)