



MACHAKOS UNIVERSITY COLLEGE

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

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

FIRST YEAR FIRST SEMESTER EXAMINATION FOR DEGREE IN BACHELOR OF
SCIENCE IN ENVIRONMENTAL SCIENCE (ENVIRONMENTAL RESOURCE
CONSERVATION)

ERC 108: NATURAL RESOURCE UTILIZATIONS AND MANAGEMENT

Date: 4/12/2015

Time:8:30 – 10:30 AM

INSTRUCTIONS:

Answer ALL questions in section A and ANY TWO questions in section B

1. a). Define each of the following terms
 - i) Rights (2 Marks)
 - ii) Civil Law (2 Marks)
 - iii) Criminal Law (2 Marks)
 - iv) Strict Liability (2 Marks)
 - v) The Law of Tort (2 Marks)
- b). Explain the FIVE general principles of riparian zone protection (5 Marks)
- c) Explain any FIVE principles guiding the implementation of the Wildlife Conservation and Management Act, 2013 of the laws of Kenya (5 Marks)
- d) Describe any FIVE ways in which insurance influences the law of tort (5 Marks)
- e) Discuss the FIVE general objectives of criminal law (5 Marks)
2. a). Explain any EIGHT functions of a riparian zone (12 Marks)
- b). Explain any FOUR reasons for which the Water Resources Management Authority may vary the use of a permit at request of the permit holder (4 Marks)
- c). List down the FOUR main challenges facing water sector under the Water Act Chapter 372 (4 Marks)

3. a). Explain the **FOUR** Dublin Principles in relation to water resources utilization and management (8 Marks)
- b). Explain any **FOUR** advantages of hydrological studies of a watershed (4 Marks)
- c). Explain any **EIGHT** categories of water use in a country (8 Marks)
4. a). List down the **FOUR** functions of water service providers (4 Marks)
- b). State any **SIX** activities that may require a prior written approval of the Director General NEMA before they are carried out in relation to a lake, river, or wetland (6 Marks)
- c). Outline any **TEN** functions of the National Land Commission (10 Marks)
5. a) Explain any **SIX** functions of the Mau forest ecosystem in Kenya (6 Marks)
- b) Explain any **SIX** main functions of the Kenya Forest Service under the Kenya Forest Act, 2005 (6 Marks)
- c) Explain any **SIX** functions of mangrove ecosystems (8 Marks)