



MACHAKOS UNIVERSITY

University Examinations For 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

SECOND YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES AND COMMUNITY DEVELOPMENT

BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)

ERC 213: INTRODUCTION TO WILDLIFE AND RANGELAND RESOURCES

DATE: 2/5/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS: Answer question ONE and TWO other questions

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain how plants are adapted to survive in rangelands. (8 marks)
- b) Underline the need to conserve rangeland vegetation. (7 marks)
- c) Discuss the use of controlled fire in some rangeland ecosystems. (7 marks)
- d) Explain the factors influencing dispersal and distribution of wildlife in the rangelands. (8 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the factors that increase grazing resistance to range plants. (10 marks)
- b) Describe the driving forces of human-wildlife conflicts. (10 marks)

QUESTION THREE (20 MARKS)

Distinguish between the following concepts using relevant examples:

- a) Habitat selection and Habitat suitability (10 marks)
- b) Plant Succession and Climax Community (10 marks)

QUESTION FOUR (20 MARKS)

- a) Describe the characteristic constraints experienced in rangelands in Kenya. (15 marks)
- b) Discuss the various ways of rehabilitating rangeland vegetation. (5 marks)

QUESTION FIVE (20 MARKS)

Discuss the challenges to wildlife conservation and management in the rangelands.