



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

**THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR
BACHELOR IN ENVIRONMENTAL STUDIES (RESOURCE CONSERVATION)**

ERC 316: MULTIPLE USE FOREST MANAGEMENT

DATE: 26/9/2019

TIME:8.30-10.30 AM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Define the words a Forest and Forest Management and describe three functions of a forest in an ecosystem (10 marks)
- b) Differentiate between Global warming and climate change and enlist the factors contributing to global warming in Kenya (10 marks)
- c) Explain what ground fire, surface and crown fires mean and give their potential severity of each type of fire to the forest ecosystem (10 marks)

QUESTION TWO (20 MARKS)

Discuss the purposes and techniques for Multiple use Management concept in an ecosystem

QUESTION THREE (20 MARKS)

Outline the factors you will consider when managing a plantation forest for timber production as a forest manager in Kenya

QUESTION FOUR (20 MARKS)

Describe the effects of forest fires on the micro - organisms in a forest ecosystem and outline the measures you will use to prevent any further fire outbreak in the forest (20 marks)

QUESTION FIVE (20 MARKS)

As the forest manager of Kakamega forest explain what you understand by Biodiversity conservation and enumerate the steps you will take to manage the forest for biological diversity function.