



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ENVIRONMENTAL STUDIES (RESOURCE MANAGEMENT)

ERC 316: MULTIPLE USE FOREST MANAGEMENT

DATE: 10/11/2020

TIME: 8.30-10.30 AM

INSTRUCTIONS:

Answer question ONE and any other TWO questions

Use Illustrations Where Necessary.

QUESTION ONE (30 MARKS)

- a) Explain the following concepts
 - i. Forest management (2 marks)
 - ii. Forest Ecosystem (2 marks)
 - iii. Carbon Sequestration (2 marks)
 - iv. Silviculture (2 marks)
- b) Describe three major functions of Mau forest (6 marks)
- c) Discuss the importance of multiple use forestry management (10 marks)
- d) Explain different types of forest fires and give their potential severity of each type of fire to the forest ecosystem (6 marks)

QUESTION TWO (20 MARKS)

Discuss the role of forests in mitigation of global warming

QUESTION THREE (20 MARKS)

You are in charge of a forest station in Aberdare forest and of late there has been reported incidences of forest fire outbreak in other neighbouring forest stations, explain measures that you can explore to prevent forest fire at your station.

QUESTION FOUR (20 MARKS)

Identify and explain factors to consider in management of forests for sustainable timber production.

QUESTION FIVE (20 MARKS)

Discuss the relevant laws and policies that govern trade in forest products in Kenya and suggest current challenges of enforcing these laws Kenya.