



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF ENVIRONMENTAL STUDIES (ENVIRONMENTAL RESOURCE CONSERVATION)

ENS 246: FOREST RESOURCES MANAGEMENT

Date:

Time:

Instructions: Answer Question ONE and any other TWO

SECTION A (30 Marks)

1. (a) Define the following terms:

- i. Silviculture *(1 mark)*
- ii. Horizontal growth *(1 mark)*
- iii. Forest principles *(1 mark)*
- iv. Biodiversity *(1 mark)*

(b) State the location and the key cultural values of the following forests

- i. Kaya forests *(3marks)*
- ii. Tiriki forest *(3marks)*

(c) Describe the conditions at the forest floor of a typical tropical rain forest *(5marks)*

(d) Use a sketch to show the location of tropical and temperate forests in the globe *(5 marks)*

(e) Explain TWO principles for responsible forest management *(4 marks)*

(f) Explain the pertinent issues contained in the Kenya forest policy 2007 (6 marks)

SECTION B: (40 marks)

2. Discuss the various plant life forms in a typical forest ecosystem (20 marks)
3. With the aid of illustrations, explain how tree growth occurs (20 marks)
4. By highlighting specific examples, explain the uses of forest ecosystems in Kenya (20 Marks)
5. Using illustrations, discuss the concept of recruitment in a forest ecosystem (20 marks)