



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)*