MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)
University Examinations 2015/2016

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF ENVIRONMENTAL STUDIES

SECOND SEMESTER EXAMINATION FOR DEGREE IN BACHELOR OF SCIENCE IN ENVIRONMENTAL STUDIES

BACHELOR OF SCIENCE IN ENVIRONMENTAL RESOURCE CONSERVATION

ENS 246: FOREST RESOURCES CONSERVATION AND MANAGEMENT

Date: 19/4/2016   **Time: 2:00 – 4:00 PM**

INSTRUCTIONS
    This paper consists of FIVE questions
    Answer question one and other two questions in this paper

SECTION A: THIS QUESTION IS COMPULSORY AND CARRIES 30 MARKS.

QUESTION ONE

(a)   Explain the following terms with respect to forest resources management   (10 marks)

      i.   Inexhaustible resources.   (2 marks)

      ii.   Shelter-wood harvesting system   (2 marks)

      iii.   Tragedy of the commons   (2 marks)

      iv.   Timber Stand Improvement   (2 marks)

      v.   Sustainable forest utilization   (2 marks)

(b)   Explain the importance of continuous forest corridors in enhancement of biodiversity and pollination success in the tropics.   (5 marks)

(c)   With clear examples, explain three human coping mechanisms for climate change and their effects to natural ecosystems.   .   (6 marks)

(d)   Explain three (3) major methods in forest regeneration   (9 marks)

SECTION B: ANSWER ANY TWO (2) QUESTIONS IN THIS SECTION. EACH QUESTION CARRIES 20 MARKS.

QUESTION TWO

(a)   Discuss the causes of forest degradation in Kenya   (14 marks)

(b)   With reference to forest structure, explain the following terms.

    i.   Heterogeneity and Forest Density.   (3 marks)

    ii.   Dead Trees and Snags   (3 marks)

QUESTION THREE

(a)   Explain five causes and effects of natural resource conflicts in Kenya   (10 marks)

(b)   Explain five natural resource conflict management and resolution strategies. (10 marks)

QUESTION FIVE

(a)   Discuss the importance of forests ecosystems.   (10 marks)

(b)   Using examples, explain four advantages and four disadvantages of alien plant species

                                                                                      (10 marks)

QUESTION FIVE

(a)   Explain the impacts of dryland salinity on terrestrial ecosystems.   (10 marks)

(b)   Explain five characteristics for selecting suitable tree species and shrubs for dry land
         rehabilitation.   (10 marks)