



# **EMBU UNIVERSITY COLLEGE**

**(A Constituent College of the University of Nairobi)**

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**2015/2016 ACADEMIC YEAR**

**SECOND SEMESTER EXAMINATION**

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE (MANAGEMENT OF AGRO-ECOSYSTEMS AND ENVIRONMENT)  
AND BACHELOR OF SCIENCE (WATER RESOURCES MANAGEMENT)**

**AEM 207: BIODIVERSITY USE AND CONSERVATION**

**DATE: APRIL 13, 2016**

**TIME: 02:00-04:00**

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**INSTRUCTIONS:**

**Answer Question ONE and ANY Other TWO Questions**

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**QUESTION ONE**

- a) Explain the following terms:
- i) Sustainable development (2 Marks)
  - ii) Phylogenetic diversity (2 Marks)
  - iii) Ecological trajectory (2 Marks)
- b) Differentiate between the following terms:
- i) Poaching and cropping (2 Marks)
  - ii) In-situ and Ex-situ conservation (2 Marks)
- c) State the attributes of ecological restoration progress (4 Marks)
- d) State FIVE conventions on biodiversity conservation (5 Marks)
- e) Explain biodiversity decline due to policy failure (5 Marks)
- f) Describe the major components of biodiversity (6 Marks)

**QUESTION TWO**

- a) Discuss the impacts of Biotechnology on biodiversity. (10 Marks)
- b) Explain why indigenous knowledge is important in biodiversity conservation.

(10 Marks)

**QUESTION THREE**

- a) Discuss the values and functions of biodiversity components giving relevant examples. (10 Marks)
- b) Discuss the ecological impacts of species invasion. (10 Marks)

**QUESTION FOUR**

- a) Discuss climatic change as a threat to biodiversity. (10 Marks)
- b) Using relevant examples, describe the various protected areas in Kenya. (10 Marks)

**QUESTION FIVE**

- a) Discuss the guidelines that are set up as components for biodiversity conservation integrated approach. (10 Marks)
- b) You have been appointed as the Chief Ecologist by Embu County with one of your key responsibilities being overseeing the restoration of the County's degraded ecosystems. Using relevant examples, discuss the key considerations to incorporate in the restoration plan. (10 Marks)

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