



UNIVERSITY OF EMBU

2016/2017 ACADEMIC YEAR

FIRST SEMESTER EXAMINATION

**FIRST YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN**

AGROECOSYSTEM MANAGEMENT

AEM 101: INTRODUCTION TO ENVIRONMENTAL SCIENCE

DATE: DECEMBER 2, 2016

TIME: 8:30-10:30AM

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions.

QUESTION ONE

- a) Define the term albedo (2 marks)
- b) Explain the major environmental problems experienced in Kenya (6 marks)
- c) Explain five evolutionary stages of environmental ethics (5 marks)
- d) Explain how climate influences the type of soil formed in an area (5 marks)
- e) Differentiate the Alfisols and Mollisols types of soil profiles (6 marks)
- f) Explain the formation of dendritic drainage pattern (6 marks)

QUESTION TWO

- a) Discuss the effects of temperature on distribution of living things (10 marks)
- b) Explain the effects of fire on plants and animals in an ecosystem (10 marks)

QUESTION THREE

a) Discuss types of soil erosion and their control measures under the following sub headings:

- i) Types of erosion (10 marks)
- ii) Control measures (10 marks)

QUESTION FOUR

Discuss the processes that lead to movement and phase change in water (20 marks)

QUESTION FIVE

- a) Describe the physical properties of minerals (10 marks)
- b) Using an illustration describe the water cycle (10 marks)