



# KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTIONAL BASED PROGRAM (IBP) DECEMBER SESSION

EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION AND

BACHELOR OF SCIENCE

**SBT 200: PLANT ECOLOGY**

**DATE: WEDNESDAY 27<sup>TH</sup> APRIL 2011**

**TIME: 4.30 P.M – 6.30 P.M**

**INSTRUCTIONS:**

Answer ALL questions in SECTION A, and any ONE question in SECTION B. Answers in Section A should be concise, and should be written within the spaces provided in the question paper.

**SECTION A**

**INSTRUCTIONS: Answer all questions within the space provided (5 marks each)**

1. Give one (1) adaptation of afro-alpine plant species towards survival in extremes in temperature. ( 5 marks)

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2. Give the name of a genus (1) whose species can carry out the following processes:

a) Ammonification: \_\_\_\_\_  
( 2.5 marks)

b) Conversion of nitrites to nitrates: \_\_\_\_\_  
( 2.5 marks)

3. Indicate whether the following statements are true or false on the space provided.

(1 mark each)

a) Permafrost can be considered a part of the hydrosphere. \_\_\_\_\_

b) The radiation released by the sun is in the wavelength range of 0.2 to 4.0 microns.  
\_\_\_\_\_

c) Without the green house effect, the earth would be a cold and lifeless planet  
\_\_\_\_\_

d) Synecology deals with the study of populations and their individual organisms  
\_\_\_\_\_

e) Ernst Haeckel defined ecology as the study of the relationships of organisms or groups of organism to each other and to their environment \_\_\_\_\_

4. Name 5 sub-components of the Clementian succession model. ( 1 mark each)

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_

5. Give one disadvantage of using the systematic (regular) sampling design. (5 marks)

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6. Briefly explain the process of melanisation in soil development. (5 marks)

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7. Briefly explain the meaning of the word 'eutrophication'. (5 marks)

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8. What is commensalism? (5 marks)

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**SECTION B: ESSAY QUESTIONS (30 MARKS)**

**Write an essay on any 1 (ONE) of the following topics: Use the provided answer booklet.**

1. Global warming green house effect
2. The forest of East Africa.
3. Measurement of primary productivity in aquatic habitats.

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