

**RONGO UNIVERSITY  
UNIVERSITY EXAMINATIONS, 2020/2021 ACADEMIC YEAR  
SECOND YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF**

**BACHELOR OF SCIENCE IN EDUCATION AND AGRICULTURE  
COURSE CODE: BOT 212**

**COURSE TITLE: PLANT ECOLOGY**

**INSTRUCTIONS:** Answer ALL questions in section A (30 marks) and any TWO selected from section B (40 marks).

**SECTION A: 30 MARKS**

**QUESTION ONE.**

- (a) Differentiate between a community and a population (2 Mks)  
(b) State any two distinguishing properties of a community. (4 Mks)

**QUESTION TWO.**

Briefly describe a mutualistic relationship that seems to contribute to the ecological integrity of the biosphere. (4 marks)

**QUESTION THREE.**

State three main aspects to be considered while studying ecosystem functioning. (4 marks)

**QUESTION FOUR.**

Differentiate between autogenic and allogenic succession. (4 marks)

**QUESTION FIVE.**

State the factors to be considered in conservation and storage of genetic material? (4 marks)

**QUESTION SIX.**

Explain an ecological niche. (4 marks)

**QUESTION SEVEN.**

State at least four features of xerophytic plants. (2 marks)

**QUESTION EIGHT.**

Briefly describe environmental factors within a plant population that encourage clumped distribution. (4 marks)

**SECTION B: 40 MARKS**

**QUESTION NINE.**

Write an essay on the succession process in the hydrosere. (20 marks)

**QUESTION TEN.**

Discuss the single channel energy model in an ecosystem.

(20 marks)

**QUESTION ELEVEN.**

Discuss various negative interactions in an ecosystem.

(20 marks)

**QUESTION TWELVE.**

Explain the importance of light in determining the growth of plants and the development of vegetation.

(20 marks)

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