

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER DECEMBER 2006

**TITLE OF PAPER:** ECOLOGY

**COURSE CODE:** B304

**TIME ALLOWED:** THREE HOURS

**INSTRUCTIONS:**

1. ANSWER ANY FOUR QUESTIONS
2. EACH QUESTION CARRIES TWENTY FIVE (25) MARKS
3. ILLUSTRATE YOUR ANSWERS WITH LARGE AND CLEARLY LABELLED DIAGRAMS WHERE APPROPRIATE

**SPECIAL REQUIREMENTS:**

NONE

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS  
BEEN GRANTED BY THE INVIGILATORS**

**QUESTION 1**

- a) Describe the physical features of lentic system noting the various life forms within each zone. (15 marks)
- b) Explain why primary production is low in most deep tropical lakes and tropical waters of the open seas. (10 marks)  
[25 Marks]

**QUESTION 2**

Write concise essays on the following:

- a) Adaptations to estuarine life by the animal community. (10 marks)
- b) Adaptations to desert life by the plant and animals communities. (15 marks)  
[25 Marks]

**QUESTION 3**

Write a detailed essay on the savanna grassland noting the importance of fire as an ecological factor in this habitat. [25 Marks]

**QUESTION 4**

Discuss the biological consequences of pollution in fresh-water bodies. [25 Marks]

**QUESTION 5**

Explain your understanding of populations, survivorship curves and K & r selection strategies. [25 Marks]

**QUESTION 6**

Write concise notes on **Two** of the following:

- a) Mutualism (12½ marks)
- b) Autogenic succession (12½ marks)
- c) Detritus and Humus (12½ marks) [25 Marks]