

UNIVERSITY OF SWAZILAND

Faculty of Health Sciences

(BSC) IN ENVIRONMENTAL HEALTH

FIRST SEMESTER SUPPLEMENTARY EXAMINATION PAPER JULY 2018

TITLE OF PAPER : ENVIRONMENTAL ECOLOGY

COURSE CODE : EHS 315

DURATION : TWO HOURS

MARKS : 100

INSTRUCTIONS : ANSWER ONLY FOUR QUESTIONS

: EACH QUESTION CARRIES 25 MARKS

: BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR

QUESTION ONE

1. Define the term ecology. (2 marks).
2. What are the levels of biological organizations at which ecological interactions occur? (5 marks).
3. Discuss the areas that ecology is concerned with. (4 marks).
4. What is environmental disease? Give two examples. (4 marks).
5. What is the difference between an ecosystem and an ecosystem community? (4 marks).
6. Name two types of thermodynamic systems and list the general characteristics of a system. (6 marks).

TOTAL 25 MARKS

QUESTION TWO

1. Farming has always been described as managing land to keep it in an early stage of succession. Discuss the ecological perspectives on agriculture. (10 marks).
2. What is ecological restoration? (2 marks).
3. List the four principles of ecological restoration. (4 marks).
4. Differentiate between primary succession and secondary succession and name the three general kinds of species that are involved in a succession process. (9 marks).

QUESTION THREE

1. What is the difference between a negative and a positive feedback? Give two examples of each. (8 marks).
2. Draw a table similar to the one below and compare nine (9) characteristics of r-strategist and k-strategist species and give three examples of each. (17 marks).

Characteristic no.	r-strategist	k-strategist
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
Examples		

TOTAL 25 MARKS

QUESTION FOUR

1. What is a biome? (1 mark)
2. Write short notes on the **tropical rainforest biome** under the following themes:
 - a. Definition of a tropical rainforest biome (3 marks)

- b. What the climate is like in the tropical rainforest and what are the limiting factors in this biome? (6 marks)
- c. Structure of the tropical rainforest biome (10 marks)
- d. Threats to the tropical rainforest biome (5 marks)

TOTAL 25 MARKS

QUESTION FIVE

- 1. Respond to the following questions to describe the coral reefs life zone.
 - a. What they are (5 marks).
 - b. Their importance. (5 marks).
 - c. Threats to the coral reefs. (5 marks).
- 2. Respond to the following questions to describe the barrier Islands life zone
 - 1. What are the barrier islands? (3 marks).
 - 2. Their importance. (3 marks).
 - 3. Human impacts. (4 marks).

TOTAL 25 MARKS