



<b>FACULTY</b>	AGRICULTURE, ENGINEERING & NATURAL SCIENCES		
<b>DEPARTMENT</b>	ENVIRONMENTAL SCIENCE		
<b>SUBJECT</b>	DISTURBANCE AND RESTORATION ECOLOGY		
<b>SUBJECT CODE</b>	EBL 3802		
<b>DATE</b>	OCTOBER/NOVEMBER 2021		
<b>DURATION</b>	2 HOURS	<b>MARKS</b>	90

### **REGULAR EXAMINATION**

**Examiner:** Dr. W. C. Nesongano (University of Namibia)

**Internal Moderator:** Prof. I. Mapaure (University of Namibia)

**External Moderator:** Prof. C.T. Downs (University of KwaZulu-Natal)

This examination paper consists of three **pages**, including the cover page.

#### ***Instructions***

**SECTION A:** answer ALL questions

**SECTION B:** choice questions (answer only ONE question).

**UNIVERSITY OF NAMIBIA EXAMINATIONS**

**Section A**

Answer **all** questions in this section. This section is worth 60 marks.

1. Describe three (3) reasons why disturbance is considered as an integral part of an ecosystem. (6)
2. Explain why ecosystem stability considered a dynamic equilibrium and not stasis equilibrium. (4)
3. Study the two communities (A and B) below and answer the following question.

<b>Community A</b>	<b>Community B</b>
Low resistance	Low resistance
Low resilience	High resilience

- Which community is more stable? Explain your choice (5)
4. Describe how redundancy affects ecosystem stability (5)
  5. Using an example, briefly describe the discipline of Functional Ecology. (5)
  6. Define the term model and explain the important models in disturbance studies. (4)
  7. Briefly describe any two strategies plants have evolved to cope with (a) fire and, (b) herbivory. (4)
  8. Distinguish between generalists and specialist as categories of herbivory. (4)
  9. Describe how reference ecosystems are used to measure the degree of ecological restoration success. (7)
  10. Briefly discuss how species diversity affects ecosystem stability (6)
  11. Outline the potential involvement of rural communities in restoration work (10)

## **SECTION B**

Answer **only one question** from this section. This section is worth 30 marks.

### **Question 1**

Discuss fire as a disturbance in an ecosystem. Clearly highlighting the important aspects of fire and **not limited to**: the types of fires, characteristics of the fire regime, the advantages and disadvantages of fire. (30)

**OR**

### **Question 2**

As a restoration manager, discuss how you would plan for a restoration project. Highlight the important steps/functions that should be undertaken in your planning. (30)

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END OF EXAMINATION

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