



“Investing in Africa’s Future”

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

DEPARTMENT OF ENVIRONMENTAL STUDIES AND NATURAL RESOURCES

NANE 401: ENVIRONMENTAL AND ECOLOGICAL REHABILITATION

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2021

LECTURER: MS M. C. KUREHWATIRA

DURATION: 5 HRS

INSTRUCTIONS

- Type your Registration Number
- Answer only **one question** of your choice.
- Each full question carries 100 marks.
- Begin your answer for each question on a new page.
- Font: Times New Roman; Font size 12; Line space: 2.0.
- Credit is given for neat, well-written and lucid work.

Question 1

- a) 2021 marks the beginning of the United Nations Decade on Ecosystem Restoration. It is believed that ecosystem restoration can help to end poverty, combat climate change and prevent mass extinction. Using examples from Africa, discuss in detail how ecosystem restoration can help to;
- i. End poverty, **[10 marks]**
 - ii. Combat climate change, **[10 marks]**
 - iii. Prevent a mass extinction. **[10 marks]**
- b) In spite of the COVID 19 pandemic, Africa and the rest of the world was not on track in achieving the sustainable development goal targets.
- i. Describe in detail, the principles that can guide you in preparing an ecological restoration plan for your country in order to achieve the SDGs' set targets. **[40 marks]**
 - ii. With the aid of a diagram, give a detailed explanation of the steps you will take to restore a degraded aquatic ecosystem. Also give the rationale for each step. **[30 marks]**

Question 2

Assuming you are an environmental manager. You have conducted a site inspection in and around Africa University to assess environmental degradation.

- a) Describe in detail the nature and extent of the environmental degradation in and around Africa University. **[20 marks]**
- b) Give a critical analysis of the impacts of the degradation to the Africa University community as well as the communities around Africa University. **[20 marks]**
- c) Suggest and describe in detail any two possible approach to restore the degraded terrestrial ecosystem around Africa University. Highlight the motivation behind each of the approaches you have suggested. **[60 marks]**

Question 3

- a) With reference to an African country of your choice, give a critical analysis of the nature and extent of ecological degradation in the named country. **[30 marks]**
- b) Analyse the potential challenges that are likely to be faced by organisations in the country named in Question 3 c) when restoring degraded ecosystems, and suggest possible solutions to these challenges. **[40 marks]**
- c) With reference to a degraded ecosystem in your country, describe in detail the steps you will take to rehabilitate the ecosystem. **[30 marks]**

END OF EXAMINATION PAPER