



“Investing in Africa’s Future”

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

DEPARTMENT OF ENVIRONMENTAL STUDIES AND NATURAL RESOURCES

NANE 211: ENVIRONMENTAL SCIENCE AND POLLUTION

END OF SECOND SEMESTER FINAL EXAMINATIONS

APRIL 2022

LECTURER: MS. M. C. KUREHWATIRA

DURATION: 3 HOURS

INSTRUCTIONS

Answer all question in Section A and any two question in Section B.

Section A

Question 1

- a) With the aid of a diagram, describe in detail the modified activated sludge sewage treatment process. **[15 marks]**
- b) Describe, giving relevant examples the non-point sources of water pollution. **[10 marks]**

Question 2

- a) Around the world, five major types of substances are released directly into the atmosphere in their unmodified forms in sufficient quantities to pose a health risk. describe any three of these substances. **[9 marks]**
- b) Describe the following;
- i. Priority pollutants **[4 marks]**
 - ii. Global warming **[4 marks]**
 - iii. Ozone depletion **[4 marks]**
 - iv. Acid deposition **[4 marks]**

Section B

Question 3

Discuss any five environmental challenges facing Africa today and suggest possible solutions to these challenges.

[25 marks]

Question 4

Describe in detail the function elements of a solid waste management system. **[25 marks]**

Question 5

Assuming you are an environmental management consultant, you are required to write a report advising your community on the best strategy to mitigate air pollution in the community. In the report, you must include,

- a) the impacts of air pollution to both humans and the environment and **[15 marks]**
- b) your proposed strategy to mitigate air pollution in the community. **[10 marks]**

END OF EXAMINATION PAPER