NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES

DEPARTMENT OF NATURAL RESOURCES SCIENCES

QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT	
QUALIFICATION CODE: 08BNRH	**LEVEL:** 8
COURSE CODE: INM821S	**COURSE NAME:** INTEGRATED ENVIRONMENTAL MANAGEMENT
DATE: NOVEMBER 2024	
DURATION: 3 HOURS	**MARKS:** 100

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Dr Tendai Nzuma
MODERATOR:	Prof Hilton Ndagurwa

INSTRUCTIONS
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

PERMISSIBLE MATERIALS

1. Examination question paper
2. Answering book
3. Calculator and Ruler

THIS QUESTION PAPER CONSISTS OF 2 PAGES (Excluding this front page)

Question 1: Define the following terms and provide an example for each. Each definition is worth 1 mark, and each example is worth 1 mark. 20]

a) **Environmental Impact Assessment (EIA)**

b) **Strategic Environmental Assessment (SEA)**

c) **Sustainable Development**

d) **Mitigation**

e) **Environmental Monitoring**

f) **Ecosystem Services**

g) **Cleaner Production**

h) **Public Participation**

i) **ISO 14000**

j) **Environmental Audit**

Question 2: Short Answer Questions (20 marks)

a) Discuss the key components of Namibia's environmental legal framework. [10]

b) Explain the importance of public participation in Environmental Impact Assessments. [10]

Question 3: Short Answer Question (20 marks)

a) Outline the steps involved in conducting an Environmental Impact Assessment (EIA). [10]

b) What is the role of mitigation in managing environmental impacts? [10]

Question 4: Long Answer Case Study (40 marks)

Scenario:

A mining company in Namibia has proposed the development of a new open-pit copper mine. The project is expected to create economic benefits, but there are concerns about its potential environmental impacts, including deforestation, water contamination, and increased carbon emissions. You are tasked with evaluating the environmental impacts and proposing mitigation measures. Additionally, you are required to calculate the carbon emissions from the fuel used during mining operations.

a) Identify and describe three major environmental impacts of the proposed mining project. [15]

b) Propose mitigation measures for each of the impacts identified. [15]

c) Assume the mine uses 1,000,000 litres of diesel per year. If the emission factor for diesel is 2.68 kg CO2 per litre, calculate the total CO2 emissions from fuel usage in one year. [10]

THE END

TOTAL MARKS: 100