



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF ENVIRONMENTAL SCIENCE

DEPARTMENT OF ENVIRONMENTAL HEALTH

BACHELOR OF ENVIRONMENTAL SCIENCE HONOURS DEGREE IN PUBLIC HEALTH

HEALTH AND SAFETY

EPH 2204

Final Examination Paper

April 2025

This examination paper consists of 3 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: Calculator

Examiner's Name: Mr P.L Moyo

INSTRUCTIONS

1. Answer any **FOUR** questions
2. Each question carries 25 marks

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

QUESTION 1

Describe and explain with appropriate examples how you would apply the hierarchy of control in dealing with hazards in a workplace (25)

QUESTION 2

With an aid of a diagram, explain all the components of a risk management framework based on ISO 31000 (25)

QUESTION 3

- a) Explain the role played by policies and legislation in health and safety at a community level. (15)
- b) Using relevant examples, come up with measures to ensure the safety of vulnerable groups (10)

QUESTION 4

Describe the Factories and workers Act 14:08 and explain how this piece of legislation ensure protection of workers. (9)

Mine X recorded the following occupational health and safety data for the year 2024

- Total number of recorded injuries = 5
- Total number of lost workdays due to injury = 75
- Total number of employees = 250
- Total number of hours worked by employees 50000

Using the above information calculate the frequency rate and severity. Show all your workings clearly (10)

Describe the three-step sequence of accidents and explain how this is important in defeating the accident process. (6)

QUESTION 5

- a) Illustrate with the diagram the components of ergonomic triangle and explain how these are important in fostering good safe working conditions (15)
- b) Identify and briefly explain any five work-related musculoskeletal disorders (10)

QUESTION 6

- a. Explain using relevant examples the concept of incident costs using the iceberg theory in occupational health and safety. **(15)**
- b. Explain the role of management in dealing with occupational stress and psychosocial risks in a workplace **(10)**