



ZIMBABWE

**MINISTRY OF HIGHER AND TERTIARY EDUCATION,
INNOVATION, SCIENCE AND TECHNOLOGY
DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL DIPLOMA

IN

APPLIED BIOLOGICAL TECHNOLOGY

MODULE: Safety, Health and Environmental Management PAPER NO: 503/23/M02

DURATION: 3 Hours

NOVEMBER/DECEMBER 2025 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

- 1) Answer any five (5) questions.
- 2) Do not write your name on the answer script.
- 3) Each question carries 20 marks.

This paper consists of 3 printed pages.

QUESTION 1

- a) State any three (3) importance of TLVs. (3 marks)
- b) Discuss the three (3) categories of TLVs. (9 marks)
- c) Explain the safe transportation of hazardous substances. (8 marks)

QUESTION 2

- a) Outline the considerations when purchasing and selecting equipment. (10 marks)
- b) Discuss five (5) ways in which occupational accidents can be classified. (10 marks)

QUESTION 3

- a) Define the following terms:
 - i) Risk assessment (2 marks)
 - ii) Pests (2 marks)
 - iii) Hazards (2 marks)
 - iv) Occupational health (2 marks)
 - v) Personal hygiene (2 marks)
- b) Explain the standard operating procedures in safely selecting equipment. (10 marks)

QUESTION 4

- a) Explain the first aid that is conducted in the following scenarios:
 - i) Haemorrhage (2 marks)
 - ii) Poisoning (2 marks)
 - iii) Fractures (2 marks)
 - iv) Asphyxia (2 marks)
 - v) Shock (2 marks)

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MANAGEMENT

- b) Explain any three (3) legislations related to occupational health and safety in the microbiological industries. (10 marks)

QUESTION 5

- a) Define the term industrial hygiene (2 marks)
- b) Explain the role of industrial hygienists on the safety of workers. (10 marks)
- c) Outline the principles of industrial hygiene (8 marks)

QUESTION 6

Explain the importance of industrial waste water treatment (20 marks)

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