



ZIMBABWE

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

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL CERTIFICATE

IN

INSTRUMENTATION AND CONTROL

**MODULE: Safety, Health Environment Quality
Management**

PAPER NO: 337/22/M01

DURATION: 3 Hours

NOVEMBER/DECEMBER 2025 EXAMINATION

REQUIREMENTS

Non- programmable calculator.

INSTRUCTIONS TO CANDIDATE

- 1. Answer all questions.**
- 2. Do not write your name on the answer booklet.**
- 3. Do not write anything on this question paper.**

This paper consists of 3 printed pages.

QUESTION 1

Explain the role of the Environmental Management Act in waste disposal and pollution control. (10 marks)

QUESTION 2

- a) Define the phrase "Fail Safe Mode" for control devices. (2 marks)
- b) Outline three (3) routine maintenance practices that can be done on movable parts of certain machinery or equipment. (3 marks)
- c) Outline five (5) PPE when dealing with movable parts. (5 marks)

QUESTION 3

Describe the 5Ps of manual handling of materials. (10 marks)

QUESTION 4

- a) Identify the classes of fire caused by the following:
 - i) Ordinary combustibles (wood etc) (1 mark)
 - ii) Flammable liquids (gasoline) (1 mark)
 - iii) Electrical equipment (1 mark)
 - iv) Combustible metals(sodium) (1 mark)
 - v) Cooking oils and fats (1 mark)
- b) State any five (5) extinguishing agents. (5 marks)

QUESTION 5

Define the following terms:

- a) Emergency (2 marks)
- b) Risks (2 marks)
- c) Disaster (2 marks)
- d) Hazard (2 marks)
- e) Disaster management (2 marks)

QUESTION 6

- a) Give an example for the following
- i) Biodegradable waste (1 mark)
 - ii) Non- biodegradable waste (1 mark)
- b) Briefly explain the following waste management methods.
- i) Landfilling (2 marks)
 - ii) Incineration (2 marks)
 - iii) Recycling (2 marks)
 - iv) Composting (2 marks)

QUESTION 7

State and briefly describe the 5-S of housekeeping. (10 marks)

QUESTION 8

Describe the environmental and health impacts of improper waste disposal.

(10 marks)

QUESTION 9

State three (3) advantages and two (2) disadvantages of the following

- a) Landfill (5 marks)
- b) Incineration (5 marks)

QUESTION 10

Describe the first aid treatment for the following:

- a) Burns (5 marks)
- b) Electrical shock (5 marks)

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