



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)
SUPPLEMENTARY / SPECIAL EXAMS**

SCHOOL OF NURSING MIDWIFERY AND PARAMEDICAL SCIENCES

**UNIVERSITY EXAMINATIONS
2021 / 2022 ACADEMIC YEAR**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN GLOBAL
HEALTH**

COURSE CODE: NCG 221

COURSE TITLE: HAZARDOUS WASTE MANGEMENT

DATE: Tuesday 4th /October/ 2022

Time: 8am to 11am

INSTRUCTIONS TO CANDIDATES

All questions are compulsory

DURATION: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This paper consists of 4 (Four) printed pages. Please turn over.

SECTION A: Multiple Choice Questions MCQs 15 Marks

1. What is considered as a waste under Basel convention?
 - a) Substance which has to be thrown
 - b) Substance which has to be disposed by law
 - c) Throw away object
 - d) Object not in use

2. The main element of Basel convention is ____
 - a) Control regime for waste movement
 - b) Control regime for hazardous waste movement
 - c) Control regime for waste
 - d) Control regime for waste analysis

3. Which of the following can be considered as source reduction of hazardous waste?
 - a) Material substitution
 - b) Treating offsite
 - c) Analysis
 - d) Landfill disposal

4. Which one of the following hazardous waste cannot be recycled?
 - a) Used oil
 - b) Treatment waste
 - c) Paints
 - d) Batteries

5. What does the term “exposure” to chemical pollutants from hazardous waste management processes indicate?
 - a) contact with chemical substances that can potentially cause adverse health effects
 - b) contamination level
 - c) spatial distribution of contaminant
 - d) None of the above.

6. The severity of toxic exposure on an individual depends on _____
 - a) Age and health
 - b) Genetics
 - c) Dose and susceptibility
 - d) Diet

7. What is the main purpose of hazard identification?
 - a) To minimize the effect of a consequence
 - b) For better risk management
 - c) To characterize adverse effect of toxins
 - d) To reduce probability of occurrence

8. The _____ process determines whether exposure to a chemical can increase the incidence of adverse health effect.
 - a) Hazard identification
 - b) Exposure assessment
 - c) Toxicity assessment
 - d) Risk characterization

9. Results from long-term exposure to lower doses of a chemical is known as _____
- Acute toxicity
 - Chronic toxicity
 - Moderate toxicity
 - High toxicity
10. What is the main objective of toxicity assessment?
- To determine source of pathway
 - To determine chemical concentration
 - To estimate how much of a substance does what kind of harm.
 - To analyse chemical exposure
11. LD50 in a toxicity test stands for _____
- a dose that will kill 50% of an exposed population
 - a dose that would not affect or harm 50% of an exposed population
 - a dose that will kill 25% of an exposed population
 - a dose that would not kill 25% of an exposed population
12. What is the aim of Basel Convention?
- Controlling movement of hazardous waste
 - Restricting movement of waste
 - Analysis of waste
 - Characterization of waste

TRUE OR FALSE STATEMENTS

13. Hazard is defined as the probability of suffering harm or loss.
- True
 - False
14. Toxicity test is the experimental study of the adverse effects of exposure of a living organism to a substance for a defined duration under defined conditions.
- True
 - False
15. Acute effects of hazardous waste may take years to show up.
- True
 - False

SECTION B: SHORT ANSWER QUESTIONS (SAQs) 45 Marks

- Classify hazardous wastes (8 Marks)
- Explain your understanding of oxidizing agents, by use of examples (8 Marks)
- Explain four (4) ways in which hazardous waste can enter into somebody's body (8 Marks)
- By using diagrams, describe the signage used in identifying hazardous wastes (8 marks)

5. Describe how you would safely transport hazardous waste from the source to the disposal site (8. Marks)
6. What is your role as a global health specialist in managing hazardous waste (5 Marks)

SECTION C: LONG ANSWER QUESTIONS (LAQs) 40 Marks

1. Discuss the management of hazardous waste substances (20 Marks)
2. Discuss the various treatment methods of hazardous wastes (20 Marks)

END