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(*University of Choice*)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

(MAIN CAMPUS)

UNIVERSITY EXAMINATIONS (MAIN PAPER) 2022/2023 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE OF MASTER OF SCIENCE IN BIOMEDICAL SCIENCES, (FORENSIC MEDICINE)

COURSE CODE: **BMF 822**

COURSE TITLE: **FORENSIC CHEMISTRY AND TOXICOLOGY**

DATE: **26TH APRIL 2023** **TIME: 08.00 – 11.00AM**

INSTRUCTIONS TO CANDIDATES

Answer **ANY FOUR** questions. **DO NOT WRITE ON THE QUESTION PAPER.**

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

1. Crimes such as homicide, suicide and abortion sometimes may be committed through exposure of the victim to some toxic substances.
   a. State three (3) major routes of administration of poisons (3 marks).
   b. Discuss four (4) factors that influence the action of a poison (8 marks).
   c. Briefly discuss how poisons can be classified (10 marks).
   d. Briefly discuss the four (4) characteristics of ideal suicidal poisons (4 marks).

2. Organic acids cause extensive destruction of the tissues and are commonly used by criminals.
   a. State three (3) common organic acids used by criminals in Kenya (3 marks).
   b. Discuss the post – mortem appearances observed in cases of poisoning based on the organic acids stated in question 2 (a) (20 marks).
   c. Discuss the medical legal aspects of mineral acid poisoning (2 marks).

3. Discuss mercury poisoning and the following heading:
   a. Mode of action (4 marks).
   b. Effects of both inorganic and organic lead exposure (3 marks).
   c. Post mortem changes (8 marks).
   d. Diagnosis (4 marks).
   e. Medicolegal aspects (4 marks).

4. Discuss alcohol intoxication under the following headings:
   a. Absorption (6 marks).
   b. Detoxification (4 marks).
   c. Excretion (2 marks).
   d. Pharmacological action (8 marks).
   e. Diagnosis (5 marks).

5. Citing relevant examples, discuss different types of animal poisons (25 marks).