



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2019/2020

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (ANIMAL HEALTH AND PRODUCTION)

KAS 314: TOXICOLOGY

DATE: Tuesday 17th November 2020

TIME: 2.00p.m -4.00p.m

INSTRUCTIONS

Answer ALL questions in Section A and any TWO questions in Section B. Within a Section ALL questions carry equal marks. Illustrate your answers with diagrams and give examples where appropriate.

SECTION A- (40 MARKS) ANSWER ALL THE QUESTIONS IN THIS SECTION

1. Explain the following terms:
 - a) Toxicology
 - b) Toxicant
 - c) Potential
 - d) Bioaccumulation
 - e) Selective toxicity [5 marks]
2. Outline five ways in which toxicological knowledge may be utilized. [5 marks]
3. Outline the routes of exposure of toxicants to the animal body. [5 marks]
4.
 - a) Define the term 'dose'
 - b) Explain how the toxic dose can be measured. [5 marks]
5. Using a dose-response curve, demonstrate the following values:
 - a) Lethal Dose (LD₅₀)
 - b) No Observable Adverse Effect Level (NOAEL)
 - c) Lowest Observable Adverse Effect Level (LOAEL) [5 marks]
6. State the factors that determine the rate of elimination of toxic substances from the animal body. [5 marks]

7. a) Define the term antidote
b) State the antidotes of the following substance:
i) Lead
ii) Organophosphorous
iii) Cyanide [5 marks]
8. Explain the pathway of Asprin (Salisylates) can cause poisoning and how it can be treated. [5 marks]

SECTION B: ANSWER ANY TWO QUESTION IN THIS SECTION (30 MARKS)

9. Discuss the general principles that of use in treatment of poisoning. [15 marks]
10. Discuss organophosphorous poisoning under the following subheadings:
a) Sources of poisoning
b) Mode of action
c) Clinical signs in animals
d) Treatment
e) Prevention [15 marks]
11. Discuss the effects of the following in farm animals:
a) Mycotoxins [7 mark]
b) Botulism [7 marks]