

CHUKA



UNIVERSITY

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**UNIVERSITY EXAMINATIONS**

**SECOND YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE IN ANIMAL  
HEALTH AND PRODUCTION**

**ANHE 00127: BASIC PHARMACOLOGY AND TOXICOLOGY**

**STREAMS: CERT ANHE Y2S1**

**TIME: 2 HOURS**

**DAY/DATE: THURSDAY 13/12/2018**

**11.30 A.M – 1.30 P.M**

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**INSSTRUCTIONS:**

- **Answer all questions in section A and any TWO in section B**

1. (a) Differentiate between the following terms:
  - (i) Pharmacodynamics and pharmacokinetics. [2 marks]
  - (ii) Drug absorption and drug distribution. [2 marks]
  - (iii) Generic name of a drug and a trade name. [2 marks]
  - (iv) Antagonistic effect and synergistic effect of a drug. [2 marks]
2. (a) Define parenteral route of drug administration. [2 marks]  
(b) List five advantages of intravenous (i/v) route of drug administration. [5 marks]
3. Name three types of reactions involved in phase I of drug metabolism. [3 marks]
4. List five main targets of antimicrobial drugs. [4 marks]
5. State five critical considerations for efficient use of drugs. [5 marks]
6. Give five ways in which antibiotics may be misused leading to possible resistance.

[5

marks]

7. Briefly explain how genetic factors of an animal affect drug metabolism. [3 marks]

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

9. (a) Discuss the factors that affect drug absorption from topical administration. [6 marks]

- (b) Giving relevant examples, describe the following types of drug interactions:
- (i) Synergistic interactions. [5 marks]
  - (ii) Antagonistic interactions. [4 marks]
10. (a) Briefly describe the mechanism of antimicrobial drug action by inhibition of cell wall synthesis. [5 marks]
- (b) Briefly explain how the following factors affect drug absorption in the gastrointestinal tract (GIT)
- (i) Lipid solubility [5 marks]
  - (ii) Physical and chemical interaction with co-administered drug. [5 marks]
11. Discuss Bracken fern poisoning in cattle under the following headings:
- (i) Predisposing factors [5 marks]
  - (ii) Clinic signs [5 marks]
  - (iii) Prevention [5 marks]
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