

GWANDA STATE UNIVERSITY



FACULTY OF LIFE SCIENCES
DEPARTMENT OF ANIMAL SCIENCES
BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE
APPLIED ANIMAL NUTRITION

LAS 4203

Second Semester Final Main Examination Paper

June 2019

This examination paper consists of 3 pages

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: None
Examiner's Name: Prof. N. Assan

INSTRUCTIONS

1. Answer **all** questions in Section A
2. Answer only **two** questions in Section B

MARK ALLOCATION

QUESTION	MARKS
SECTION A	60
SECTION B	40
TOTAL ATTAINABLE MARKS	100

Copyright: Gwanda State University

SECTION A ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION 1

- a) Compare and contrast the characteristics of dry forage and roughage and protein supplements or feedstuff. {10}
- b) Discuss the role of water provision in poultry production {10}

QUESTION 2

- a) Tannins and protease inhibitors (trypsin inhibitors) are some of the prominent anti-nutritional factors. Briefly discuss their specific adverse effects, their main feedstuff sources and explain how to minimise their effects. {12}
- b) Give 3 examples of feed additives used in poultry production {3}
- c) Briefly describe the expected response after use of feed additives in dairy cattle performance {5}

QUESTION 3

- a) State **FIVE** factors that should be considered in ration formulation {5}
- b) Use person square method to assist a farmer in ration formulation, where a final ration with 25.5% is required. The farmer has barley (11 %) and soybean meal (44% CP). Assume final weight of ration is 50kg. {9}
- c) Discuss the use of waste products in pig production. {6}

SECTION B ANSWER ONLY TWO QUESTIONS

QUESTION 4

- a) Non-conventional feed resources refer to all those feeds that have not been traditionally used for animal feeding. Discuss their major concern and/or constraints in their utilization in applied animal nutrition. {7}
- b) Discuss the factors that affect feed intake in broilers {13}

QUESTION 5

Discuss the nutritional factors that affect egg quality parameters' in layers' (20)

QUESTION 6

- a) Discuss the factors that affect urea utilisation in ruminant nutrition {10}
- b) Outline a phase feeding program in cattle {10}

QUESTION 7

- a) Discuss the feeding of lactating sows in pig production {10}

b) Acidosis is one of the common nutritional disorders in cattle. Discuss. {10}

THE END