

# UNIVERSITY OF FORT HARE

**AGA 221**

## Degree Examinations (Supplementary)

**November 2018**

**Time** : 3 Hours

**Subject** : Principles of Animal Nutrition

**Marks** : 100

This paper consists of 2 printed pages including the cover page

**Internal Examiner**

Dr. C. T. Mpendulo

### **Instructions**

1. ANSWER ALL QUESTIONS
2. It is in your best interest to write clearly and legibly.

**Question 1 [25 marks]**

- a. Write short notes on associative digestibility. (15 marks)
- b. What are the pros and cons of tannins in animal nutrition? (10 marks)

**Question 2 [25 marks]**

List and explain the significance of non-nutritive additives in animal nutrition. (25 marks)

**Question 3 [25 marks]**

Describe causes, symptoms, treatment and prevention methods of each of the following conditions/disorders/deficiencies.

- a. Bloat. (15 marks)
- b. Milk Fever. (10 marks)

**Question 4 (25 marks)**

- a. With the aid of a simple diagram describe the process of digestion in ruminants. (15 marks)
- b. Explain the 4 main stages of digestion that occur in the gastro-intestinal tract (GIT) of animals (10 marks).