



UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE CERTIFICATE IN
ANIMAL SCIENCE AND TECHNOLOGY
SECOND SEMESTER 2024/2025
[SEPTEMBER – DECEMBER, 2024]**

ANSC 00230: ANIMAL NUTRITION AND LIVESTOCK FEEDING

STREAM: Y1 S2

TIME: 2 HOURS

DAY: TUESDAY, 3:00 - 5:00 P.M.

DATE: 10/12/2024

INSTRUCTIONS:

- 1. Do not write anything on this question paper.***
- 2. Answer question ONE in section A (Compulsory) and any other TWO questions from section B.***

SECTION A (40 MARKS)

1. Explain the following terms in nutrition in livestock
 - a. Feed conversion Efficiency
 - b. Metabolic Water
 - c. Fibrous proteins
 - d. Storage sugars
 - e. Protein quality
 - f. Disaccharides
 - g. Regeneration
 - h. Essential amino acids
 - i. Saturated fats
 - j. Condensation
2. Describe the importance of proteins in livestock growth, development and production (10 marks)
3. How does amount of body changes with the age in animals (2mks) fat is an enemy of body water. Explain this statement stating how this affects animal production. (4 marks)

SECTION B (30 MARKS)

4. Discuss the importance of major elements/microelements in the diet of animals giving relevant examples of such elements. (10 marks)

5. a. state the sources of vitamin D in cattle (2 marks)
- b. state the functions of vitamin D in Animals (3 marks)
- c. State the signs of lack of Vitamin D in Livestock (5 marks)
6. classify livestock feeds and feedstuffs stating the relevant examples. (10 marks)
7. what is the importance of feed conservation (2 marks)
- Briefly discuss the steps or techniques of silage preparation (8 marks)