

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE (ANIMAL NUTRITION)

ANSC 824: LIVESTOCK FEED PROCESSING TECHNOLOGY

STREAMS:MSC (ANIMAL NUTRITION)

TIME: 2 HOURS

DAY/DATE: TUESDAY 10/04/2018

8.30 A.M – 10.30 A.M

INSTRUCTION:

- **Answer four questions**

1. Processing of feed ingredients is a prerequisite in the production of quality feeds .
 - (a) Give reasons for milling feeds. [3marks]
 - (b) Discuss the wet and dry milling processes indicating their suitability for manufacture of different products. [4marks]
 - (c) Explain the effects of method of production on the nutritive value of oil seed cakes. [4marks]
2. Production of feeds must be based on least –cost formulation
 - (a) What do you understand by least-cost formulation
 - (b) Outline the factors that must be considered when manufacturing animal feeds. [8marks]
 - (c) Discuss 5 main reasons of processing animal feeds. [5marks]
3. Quality control is essential in any feed manufacturing plant.
 - (a) Explain the above statement. [2marks]
 - (b) Outline a quality control program for a feed plant. [4marks]

- (c) Why is moisture a major consideration in this exercise. [4marks]
- (d) Describe the production of meat and bone meal and comment on its quality. [5marks]
4. Proteins are the most expensive components of a ration.
- (a) Discuss the considerations in selecting a protein source for inclusion in a poultry ration. [8marks]
- (b) Comment on the use of animal by-products in the ration. [4marks]
- (c) Describe the factors to consider in making rations for poultry. [3marks]
5. Feed manufacturers capitalize on processes that add value to the final product.
- (a) Discuss the advantages of making pellets in feed manufacturing. [6marks]
- (b) What is considered in making quality pellets? [4marks]
- (c) Describe the role of fat gelatinization in feed processing. [3marks]
- (d) Contrast between horizontal and vertical mixers. [2marks]
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