



KENYATTA UNIVERSITY

SUPPLEMENTARY/SPECIAL EXAMINATION 2020/2021

EXAMINATION FOR THE DEGREE BACHELOR OF SCIENCE IN ANIMAL
HEALTH AND PRODUCTION

KAS 206: PRINCIPLES OF NUTRITION

OCTOBER, 2021

TIME: 2 HRS

INSTRUCTIONS

Answer All questions in Section A and any other Two questions in Section B

SECTION A: Answer ALL questions (40 marks)

1. Explain why Antonie Lavoisier is referred to as the “founder” of the science of nutrition. (5 marks)
2. Outline the advantages of rumen fermentation in ruminant animals. (5 marks)
3. Differentiate between the following terms:
 - i) Dietary essential nutrients and dietary non-essential nutrients (1 mark)
 - ii) Catabolic pathway and Anabolic pathway (1 mark)
 - iii) Succulent roughages and Dry roughages (1 mark)
 - iv) Micro minerals and Macro minerals (1 mark)
 - v) True proteins and non protein nitrogen (1 mark)
4. Outline factors which affect the absorption of inorganic elements. (5 marks)
5. State the main sources from which animals obtain water. (5 marks)
6. Define the term “metabolism” and state its functions in the body. (5 marks)
7. Define and illustrate the concept of compensatory growth. (5 marks)
8. using Pearson square, formulate the following ration of Dairy concentrate CP 16% using Cotton Seed Cake CP 35% and Maize Grain CP 10%. (5 marks)

SECTION B: Answer any Two Questions (30 marks)

9. Discuss the physical factors that influence the nutritive value of herbage (15 marks)
10. a) List the classes of nutrients that are important in animal nutrition. (3 marks)
b) Give two functions and two deficiency symptoms for each of the nutrient named in 3 (a) above. (12 marks)
11. As an expert in animal nutrition, discuss the feeding management practices you would recommend to a farmer to maximize efficiency of the operation and minimize wasted feed. (15 marks)