



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

**MAIN CAMPUS
MAIN EXAMINATIONS**

**UNIVERSITY EXAMINATIONS (REGULAR)
2021/2022 ACADEMIC YEAR**

**THIRD YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF B.Sc. IN: AGRICULTURE AND BIOTECHNOLOGY**

COURSE CODE: AAP 303

COURSE TITLE: ANIMAL NUTRITION AND FEEDING

DATE: 27TH APRIL, 2022

TIME: 12-2 PM

INSTRUCTIONS TO CANDIDATES

Answer ALL questions in section A and ANY TWO questions in section B

TIME: 2 Hours

Total marks=70

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

SECTION A (30 MARKS)

1.
 - a) Describe the importance of feed evaluation in animal nutrition (5 Marks)
 - b) Explain the effects pelleting and crumbling on the nutritive value of feedstuff (5Marks)
 - c) Describe the physiological effects of gossypol in poultry (2 Marks)
 - d) Explain what is meant by a maintenance ration in animals (2 Marks)
 - e) Describe the importance of feeding a ruminant a consistent diet (2 Marks)
 - f) Explain the differences between as fed and dry matter (2 Marks)
 - g) Describe a balanced diet as applied in animal nutrition (3 Marks)
 - h) Describe the information to consider on feedstuffs during ration formulation for animals (6 Marks)
- i) Use persons square to mix groundnut meal (41% CP) and maize meal (9%CP) to make a 14 % CP mixture (3 Marks)

SECTION B (40MARKS)

2. Describe factors that impact on feed intake and utilization in farm animals (20Marks)
- 3a) Describe the digestion of carbohydrates in non- ruminants (10 Marks)
- b). Describe the digestion of carbohydrates in ruminants (10 Marks)
- 4 a.) Explain the term “alternative feed” as used in animal feeding (2 Marks)
- b.) Describe factors to consider while using alternative ingredients in feeding (18 Marks)