

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR  
OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION.

ANSC 450: RUMINANT PRODUCTION

STREAMS: AGED Y4S2 P/T

TIME: 2 HOURS

DAY/DATE: FRIDAY 9/08/2019

5.00 P.M - 7.00 P.M.

INSTRUCTIONS:

- Attempt ALL Questions in section A and any TWO in B
- Do not write anything on the question paper

SECTION A

1. a) Describe ruminant agriculture. (1 mark)  
b) Explain characteristics of ruminant agriculture. (2 marks)  
c) Highlight constraints in free range ruminant production system. (2 marks)  
d) Describe traits of economic importance the composition of a herd/ flock is based on. (2 marks)  
e) Outline breeding technologies used in ruminant animals. (3 marks)
2. a) Outline benefits of small ruminants over large. (2 marks)  
b) Highlight factors regulating the proportion of bulls to cows in a beef cattle herd. (2 marks)  
c) Outline advantages of steaming a dairy cow. (2 marks)  
d) Highlight structural adaptations of camel to hot and arid environment. (2 marks)  
e) Describe rut and its signs in camel. (2 marks)

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- 3. a) Highlight advantages of flashing in sheep. (2 marks)
- b) Highlight reasons why artificial insemination is not commonly in goats. (2 marks)
- c) Outline factors influencing infective agent in causing disease. (2 marks)
- d) Outline four (4) signs of an ill-health in cattle. (2 marks)
- e) Outline the main operations carried out in calf management. (2 marks)

**SECTION B**

- 5. a) Discuss factors influencing selection in agricultural ruminants. (10 marks)
- b) Discuss factors influencing usage of natural mating in ruminant farm animals. (10 marks)
- 6. a) Explain dairy cattle management in details. (10 Marks)
- b) Discuss factors influencing clean milk production. (10 marks)
- 7) a) Discuss raw milk processing of ruminant animals. (10 marks)
- b) Discuss factors influencing construction of small ruminants' facilities. (10 marks)

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