



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURE EDUCATION AND EXTENSION

ANS 301: RUMINANT ANIMAL PRODUCTION

DATE: 2/5/2019

TIME: 2:00 – 4:00 PM

INSTRUCTIONS: Answer Question One and Any Two Questions

QUESTION ONE (COMPULSORY)(30 MARKS)

- a) Distinguish between
- i) fore gut and hind gut fermenters (2 marks)
 - ii) Ruminants and pseudo ruminants (2 marks)
- b) Explain **FOUR** roles of ruminants in the Kenyan economy (4 marks)
- c) Explain the importance of the following routine management practices in ruminant animal husbandry
- i) Docking. (2 marks)
 - ii) Vaccination (2 marks)
- d) Explain **TWO** attributes of camel milk that distinguishes it from cow milk. (4 marks)
- e) A farmer is concerned that is no inbreeding herd of cattle. Explain **FOUR** ways he can make sure this does not happen (4 marks)
- f) Explain the following terminologies.
- i) Flushing (2 marks)
 - ii) Drenching (2 marks)
- g) Explain **FOUR** characteristics of a good breeding buck. (4 marks)
- h) Explain **TWO** disadvantages of using tattoos in livestock identification (2 marks)

QUESTION TWO (20 MARKS)

- a) Explain **FIVE** reasons every dairy farmer must learn and implement clean milk production principles. (10 marks)
- b) A farmer wants to improve on his dairy herd performance. Explain **FIVE** ways artificial insemination can help him achieve this. (10 marks)

QUESTION THREE (20 MARKS)

- a) Explain **FIVE** requirements of small ruminants housing. (10 marks)
- b) Farmers in semi-arid Tana River County having been experiencing challenges with the nomadic pastoral production systems. Explain **FIVE** advantages of ranching over nomadic pastoral production system. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Explain 5 reasons for cow replacement in herds. (10 marks)
- b) Giving relevant examples, explain five management practices of draught animals. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Describe **FIVE** constraints facing ruminant animal production in Kenya. (10 marks)
- b) Explain **FIVE** feeding habits that enable camels survive in arid areas. (10 marks)