



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

ANS 301: RUMINANT ANIMAL PRODUCTION

DATE: 23/7/2019

TIME:2.00-4.00 PM

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## INSTRUCTIONS:

Answer **QUESTION ONE** and any two questions

### QUESTION ONE (30 MARKS)

- a) Explain **TWO** occasions where paint is used to identify animals (4 marks)
- b) Explain the advantages of full hand milking (4 marks)
- c) Explain **TWO** advantages of crossing *Bos indicus* and *Bos taurus* cattle breeds in the tropics (4 marks)
- d) Explain **FOUR** reasons for housing livestock (4 marks)
- e) Explain the terminology 'fertility' (2 marks)
- f) Explain the importance of the following.
  - i. Body condition (2 marks)
  - ii. Dehorning (2 marks)
- g) Distinguish between in breeding and line breeding (4 marks)
- h) Describe **FOUR** management activities that should be done on kidding (4 marks)

**QUESTION TWO (20 MARKS)**

- a) Explain **FIVE** advantages of mating heifers using Artificial insemination (10 marks)
- b) Describe 5 characteristics for a breeding doe (10 marks)

**QUESTION THREE (20 MARKS)**

- a) The teeth of an animal will determine its productivity and longevity of service to the farmer. Describe how the age of sheep can be determined using its teeth (10 marks)
- b) Explain **FIVE** advantages of partitioning a sheep house (10 marks)

**QUESTION FOUR (20 MARKS)**

- a) Describe **FIVE** factors that hinder Kenya from fully benefiting from animal ruminant livestock (10 marks)
- b) Describe **FIVE** pre-mating activities that should be carried out in bucks (10 marks)

**QUESTION FIVE (20 MARKS)**

- a) Describe **FIVE** practices to be considered when weaning lambs (10 marks)
- b) Explain **FIVE** roles of camels in the pastoralist economy (10 marks)