



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

APRIL SESSION EXAMINATION FOR BACHELOR OF EDUCATION

KRM 203: PRINCIPLES OF ANIMAL PRODUCTION

DATE: SCHOOL BASED

TIME:

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

- a) Define the following terms in relation to animal production.
- | | |
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| i. Coprophagia | (2 marks) |
| ii. Nutrient absorption | (2 marks) |
| iii. Feed utilisation | (2 marks) |
| iv. Growth | (2 marks) |
| v. Maintenance | (2 marks) |
| vi. Mycotoxins | (2 marks) |
| vii. Fodder | (2 marks) |
- b) Define "digestion" by describing the processes involved (5 marks)
- c) Explain why under normal feeding conditions, little to no glucose is absorbed from the digestive tract of ruminants (5 marks)
- d) What are the TWO sources of amino acids absorbed in the blood from the digestive tract of ruminants (4 marks)
- e) Name TWO domestic livestock that are fore gut fermenters (2 marks)

QUESTION TWO (20 MARKS)

- a) What FOUR digestive adaptations do ruminants have that make them different from monogastric (non-ruminant) animals in the way that they extract and use energy from their feed (8 marks)
- b) Discuss the classification of factors to consider when formulating animal feeds. In each class, give FOUR examples (12 marks)

QUESTION THREE (20 MARKS)

- a) Describe FOUR ways of nutrient absorption (12 marks)
- b) Explain FOUR ways how livestock utilize feeds they consume (8 marks)

QUESTION FOUR (20 MARKS)

- a) Outline FIVE internal stimuli factors of an animal that influence food intake (5 marks)
- b) Outline FIVE animal physiologic factors that influence food intake (5 marks)
- c) Discuss FIVE feed intake management considerations (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss any FOUR domestic livestock feed resources (8 marks)
- b) Discuss any SIX contaminants in animal feeds (12 marks)