



A Constituent College of Kenyatta University

**UNIVERSITY EXAMINATIONS 2010/2011 ACADEMIC YEAR**

**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER EXAMINATION FOR THE DIPLOMA OF**

**STREAM: DIPLOMA IN AGRICULTURE & MARKETING, DIPLOMA  
IN ANIMAL HEALTH AND DIPLOMA IN AGED  
AGRICULTURE AND ENTERPRISE DEVELOPMENT**

**ADA 202: RUMINANT PRODUCTION**

**END SEMETER: I**

**TIME: 2 HOURS**

**DAY/TIME: THURSDAY: 5.00 TO 7.00 P.M. DATE: 25/11/2010**

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**INSTRUCTIONS**

- Answer ALL the questions in Section A and TWO questions from Section B

**SECTION A: - (40 MARKS)**

- Q.1) Losing approximately 20% of the body's water could lead to death due to dehydration Ordinarily what are the negative causes of water deprivation? (2 marks)
- Q.2) Explain and discuss why? (4 marks)
- a) Without the oesophageal groove reflex calves, lambs and kids would not survive beyond one month of age.
  - b) The East African Zebu is a breed?
- Q.3) Gestation length is a constant that determines productivity of dams. (4 marks)
- a) Define gestation length

- b) What causes variation of gestation length?
- c) What are the average gestation lengths in days of cows, ewes and does?
- Q.4) A ruminant body composition varies with age in relation to ash, protein, fat and water Compare and contrast body composition between a one month calf and a three year old steer. (4 marks)
- Q.5) You are mandated by your village youth group to buy female goats from the market that are one to three years old. After discovering at the market sellers do not know the age of their goats, how will you use dental formula to determine their ages. (4 marks)
- Q6) Sketch and label the digestive system of a cow from the end of the oesophageal to the beginning of the colon. (4 marks)
- Q.7) Detecting unhealthy animals early is important for a successful treatment programme and if necessary isolation . List 15 observable symptoms of livestock sickness. (5 marks)
- Q.8) Discuss four ways in which the camel adapts to heat stress? (4 marks)
- Q.9) Compare and contrast pastoralism and ranching in Kenya (5 marks)
- Q.10) Milk is a noble food
- a) Discuss attributes that consumers look for in milk and its products
- b) If a farmer has excess milk and no storage facility; What one of two milk products will you advise him to process? What are the concentration rates of the end products?

### **SECTION B - 30 MARKS**

- Q.11) With the help of a well labeled figure/diagram illustrate and explain a twelve months production cycle of a cow from one calving to the next in relation to its nutritional demands for different functions. (15 marks)
- Q.12) Sketch and discuss a management calendar of sheep and goat production under bimodal rainfall with a total annual rainfall of 600 to 900 mm per year. (15 marks)

Q.13) The importance of a heifer cannot be overemphasized because it is your future cow. (15 marks)

- a) Explain why the age of a heifer before its first service should be given due consideration and what are the current recommendations?
- b) Distinguish between flushing and steaming up in relation with a heifer.