



“Investing in Africa’s future”

**COLLEGE OF HEALTH, AGRICULTURE AND NATURAL
SCIENCES**

NAAS 402: RUMINANT ANIMAL PRODUCTION

END OF SECOND SEMESTER FINAL EXAMINATIONS

APRIL 2022

LECTURER: DR. S. CHAKEREDZA

DURATION: 3 HOURS

INSTRUCTION

1. Answer All Questions in Section A, and
2. Answer Any Three Questions from Section B

Section A (answer all, possible marks 40)

1. Ruminants and nonruminants are different. What are the major differences?[2]
2. List four species of each kept by smallholder farmers of ruminant and non-ruminant animals. [6]
3. Define what the following terms mean in sheep and goat production: whether, hogget, Chevon, Teaser and Simmer. [10]
4. When grading beef carcasses, which possible grades are given? [10]
5. How does the government of Zimbabwe set as requirements for milk to be processed (statutory requirements)? [10]
6. How do you formulate a concentrate fraction to achieve 12 % crude protein (CP) using soyabean meal (45 % CP) and maize meal (9.6 % CP)? [2]

Section B (Choose any 3, maximum possible marks 60)

1. Discuss the Proximate Scheme of Feed Analysis highlighting its shortcomings and what are the proposals for newer formulation systems. [20]
2. Write an essay tracing the liquid milk value-chain. [20]
3. Discuss the principles of marketing of pen fattened beef cattle using the 4Ps approach. [20]
4. Discuss the factors that affect the choice of sheep or goat production system. [20]
5. Given the seasonal changes in feed quality of vegetation in tropical regions, discuss the measures you would take in looking after your ruminant livestock to enhance productivity. [20]

END OF EXAMINATION PAPER