



***“Investing in Africa’s future”***

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

**NAAS 403 NON RUMINANT ANIMAL PRODUCTION**

**END OF SECOND SEMESTER FINAL EXAMINATIONS**

**APRIL 2022**

**LECTURER: DR. S. CHAKEREDZA**

**DURATION: 3 HOURS**

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**INSTRUCTION**

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

### **Section A (answer all, possible marks 40)**

1. Give the animal Feed Nutrients . [6]
2. Define Caecotrophy and state where it occurs. [3]
3. What are the factors that influence the size of an egg? [8]
4. How is egg quality assessed? [7]
5. Hatchability of eggs are influenced by which factors? [8]
6. What are the advantages of rabbit meat over other livestock species meat as used for human consumption? [8]

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

1. What are the advantages and disadvantages of rabbit keeping under smallholder farmer conditions of sub-Saharan Africa ?  
[20]
2. Trace how feed energy is utilized in the body indicating the losses which occur from energy intake until net energy utilization (Diagrammatic is best).  
[20]
3. With your knowledge of pig production, Discuss the advantages and disadvantages of pig production in tropical and subtropical conditions. [20]
4. For a smallholder farmer compare and contrast the extensive free-range systems of poultry raising in the tropics and subtropical regions.  
[20]
5. For successful insemination in pigs you need to understand the estrus cycle. Describe the stages in the signs of heat in a sow/gilt and comment on the recommended practices during heat period . [20]

**END OF EXAMINATION PAPER**