



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES
SCHOOL OF AGRICULTURE AND NATURAL RESOURCES SCIENCES
DEPARTMENT OF AGRICULTURAL SCIENCE AND AGRIBUSINESS**

QUALIFICATIONS : BACHELOR OF SCIENCE IN AGRICULTURE	
QUALIFICATIONS CODE: 07BAGA	LEVEL: 7
COURSE CODE: SRH611	COURSE NAME: SUSTAINABLE SMALL RUMINANT HUSBANDRY
DATE: JUNE 2023	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 150

FIRST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER:	MRS. LUCIA TUYENI-KELAO KAFIDI
MODERATOR:	DR. HILMA R. AMWELE

INSTRUCTIONS
<ol style="list-style-type: none">1. Answer all the questions.2. Write neatly and clearly.3. Mark all answers clearly with their respective question numbers4. All written work MUST be done in blue or black ink.5. No books, notes and other additional aids are allowed

PERMISSIBLE MATERIALS

1. Calculator
2. Examination paper
3. Examination script

**THIS QUESTION PAPER CONSISTS OF 4 PAGES
(Including This Front Page)**

QUESTION 1

1. If bales of fleece wool are marked as follows, what does it mean? Provide all the necessary information.
- 1.1 BM [2]
1.2 AAM [2]
1.3 CFF [2]

QUESTION 2

- 2.1 Name four steps of fermentation in the rumen of the ruminant animal. [4]
2.2 What are the common diseases that are ought to affect the fertility of the ram. [3]

QUESTION 3

According to the commercial production and reproduction operation calendar for sheep:2

- 3.1 What is the best time for lambing? [2]
3.2 What is the best time for buying rams? [2]

QUESTION 4

Discuss the following parts of the oestrous cycle of the small ruminant (goat and sheep). Indicate the timeline per period and the activities that are taking place at a time.

- 4.1 Metestrus [4]
4.2 Dioestrus [4]

QUESTION 5

- 5.1 Differentiate between Carding of wool and Worsted yarn [2]
5.2 Explain the features that determine the economical values of the wool. [6]

QUESTION 6

- 6.1 Explain the challenges facing the new farmers in running the farm as a business. [10]
6.2 Explain the differences between the goat kid meat and sheep lamb meat. [10]

QUESTION 7

- 7.1 The sheep meat in Namibia is marketed or sold as what? [2]
7.2 Describe the Body Condition (BCS) 2 (Two) of the sheep. [8]

QUESTION 8

Evaluate and analyse the small stock industry in Namibia, regarding the types of marketing.

- 8.1 Auctions (5)
- 8.2 Abattoir (5)

QUESTION 9

- 9.1 One of the tools of breeding and selection is visual selection. [10]
- 9.2 Assume that some of your sheep were serviced on the 18 March 2022. Calculate the expected lambing day. Show all steps included in determining of the estimated days. [10]

QUESTION 10

- 10.1 Distinguish between notifiable diseases and contagious diseases? [2]
- 10.2 Name six (6) of these notifiable diseases. [6]

QUESTION 11

- 11.1 What is Pregnancy Toxaemia in sheep? [3]
- 11.2 What causes of pregnancy toxaemia (disease)? [5]
- 11.3 How you would prevent or control Pregnancy Toxemia? [5]

QUESTION 12

- 12.1 Livestock farming can have various impacts on the environment. Demonstrates the understanding on how Usage of Arboricides and Pesticides is crucial to the environment and how could it be handled to comply with FANMeat standards. [5]
- 12.2 What are compulsory vaccinations according to the Animal Health Act? [5]

QUESTION 13

It is important to keep good record in any farming system. According to FANMeat standards with regards to record keeping, there are certain forms and documents that must be filled in timely and submitted to the respective recipients. Express your knowledge by naming and explaining these forms. [8]

QUESTION 14

A farmer mated 350 Does and 335 of these were scanned pregnant. 330 of these Does kidded, 990 kids were born alive, and 990 kids were weaned.

Calculate the following reproduction parameters for small ruminant livestock production.

- 14.1 Survival Rate (SR) [3]
- 14.2 Lambing Percentage (LP) [3]

QUESTION 15

Calculate the costs of the feed required to feed the ram for two months (December and January) if each feed ingredient costs N\$3.50 per part. A good ration for working rams must be composed of the following feed ingredients per day: [9]

- 2 of parts yellow mealie meal
- 5 of parts oatmeal
- 3 of part wheat bran
- 0.5 of part fishmeal

QUESTION 16

Use the tooth counts below to determine how old these goats are. [3]

