



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES**

**SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES**

**DEPARTMENT OF NATURAL RESOURCES SCIENCES**

<b>QUALIFICATION : BACHELOR OF NATURAL RESOURCES MANAGEMENT</b>	
<b>QUALIFICATION CODE:</b> 07BNRS	<b>LEVEL:</b> 7
<b>COURSE CODE:</b> ZLY621S	<b>COURSE NAME:</b> ZOOLOGY 2
<b>DATE:</b> JANUARY 2025	
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 150

<b>SECOND OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	Mrs. Gertruida Louisa Theron
<b>MODERATOR:</b>	Mr. Jeremia Amutenya

<b>INSTRUCTIONS</b>	
<ol style="list-style-type: none"><li>1. Answer ALL the questions.</li><li>2. Write clearly and neatly.</li><li>3. Number the answers clearly.</li></ol>	

**PERMISSIBLE MATERIALS**

1. Examination question paper
2. Answering book
3. Calculator and Ruler

**THIS QUESTION PAPER CONSISTS OF 3 PAGES** (Including this front page)

**SECTION A: SHORT QUESTIONS (Terminology)****[30 MARKS]****QUESTION 1**

Give the correct scientific term for each of the following ethological terms.

**[10]**

- 1.1 Active at dusk and dawn.
- 1.2 A group of females guarded by one male who defends his mating rights.
- 1.3 Grimace or facial expression of males when testing chemical signals to see if females are sexually receptive.
- 1.4 Social structure that ranks animals in order of dominance, also called pecking order.
- 1.5 The collective noun for a group of Warthogs or any Suidae.
- 1.6 A process of removing or weeding out those less fit to survive the challenges of their environment.
- 1.7 All females in a herd breed or have their young at the same time or within a short period.
- 1.8 A social status that allows privileged access to resources such as food or females because subordinate animals give way to the ones with higher status.
- 1.9 Adaptive convergence of closely related forms.
- 1.10 Populations that meet in a narrow geographic zone and retain distinctness.

**QUESTION 2**

- 2.1 Name the Sub-class that all Namibian mammals belong to. (1)
- 2.2 Give the super cohort and order to which each of the following mammals belong: (6)  
(Spelling does count)
  - a) Aardvark
  - b) Bushbaby
  - c) Klipspringer
- 2.3 Give the scientific name of each of the following mammals. (Spelling does count). (3)
  - a) Black rhinoceros
  - b) Warthog
  - c) African buffalo

**[10]****QUESTION 3**

Distinguish between the following:

- 3.1 "Conditioning" and "Habituation" (2)
- 3.2 "Arena" and "Aggregation" (2)
- 3.3 "Instinctive" and "Learned" behaviour (2)
- 3.4 "Scansorial" and "fossorial" animals. (2)
- 3.5 "Matriarchy" and "Oligarchy" (2)

**[10]****SECTION B: LONGER QUESTIONS (Ethology)****[60 MARKS]****QUESTION 4**

- 4.1 Discuss the feeding behaviour for each of the following Orders. (9)  
Tubilidentata  
Hyracoidea  
Proboscidae
- 4.2 Distinguish, using examples, between sedentary bovids and migratory bovids. Also, explain the influence/effect that this has on parent/offspring behaviour. (6)

**[15]**

**QUESTION 5**

Briefly explain to Conservancy members the following terms as they relate to *Giraffa camelopardalis*.

- 5.1 Social organization. (4)
  - 5.2 Anti-predator behaviour. (2)
  - 5.3 Feeding behaviour. (6)
- [12]**

**QUESTION 6**

In Tabular form, differentiate between Black and White Rhino in terms of their appearance (6) and behaviour (6).

**[12]**

**QUESTION 7**

- 7.1 Name and explain 4 basic methods of anti-predator behaviour used by primates. (8)
  - 7.2 Discuss the importance of grooming for the Chacma baboon. (6)
- [14]**

**QUESTION 8**

- 8.1 Discuss the anti-predator behaviour of *Smutsia temminckii*. (4)
  - 8.2 Describe the social organisation of hippos. (3)
- [7]**

**SECTION C: LONGER QUESTIONS (Adaptations)**

**[45 MARKS]**

**QUESTION 9**

The food of vertebrates varies greatly and so do the ways that they **use to locate/access their food**. Explain 10 different methods used by various vertebrates. Make sure you discussed **TEN different** methods and provide examples of animals using each method.  
USE PROPER SENTENCES.

**[20]**

**QUESTION 10**

Explain 5 different ways of digging found in animals. Provide one example (for each method) of an animal using it.

**[15]**

**QUESTION 11**

Compare the structural adaptations of cursors to that of saltators. Provide one mammalian example for each lifestyle.

**[10]**

**SECTION D: LONGER QUESTIONS (Zoogeography)**

**[15 MARKS]**

**QUESTION 12**

- 12.1 Explain 7 possible ways in which animals can become dispersed. (7)
  - 12.2 What evidence is there today for the former connection of the continents? (8)
- [15]**

**TOTAL [150]**