INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF BUSINESS MANAGEMENT

END OF SEMESTER EXAMINATIONS - AUGUST 2025

PROGRAMME: BTHM
YEAR/SEM: YEAR 1/SEMESTER 2
COURSE CODE: BTHM 1203
NAME: ANIMAL ECOLOGY

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

Section A is a case study and it is Compulsory (40 marks)

Question 1:

Case study 1

African Elephants (Loxodonta Africana are large herbivores that inhabit savannas, forests and deserts in sub-Saharan Africa. They are one of the most iconic and ecologically important species in Africa. As large herbivores, they play a crucial in shipping their ecosystems through their foraging and food selection. Understanding their foraging behavior is essential for conservation efforts and managing human wildlife conflict.

African Elephants are bulk feeders, consuming large quantities of plant material including grasses, leaves, fruits, and bark. They use their trunks to gather food and their dietary references vary depending on the season and location. During the wet, they tend to feed on lush vegetation, including grasses and leaves, while during the dry season, they rely more on woody plants such as bark and roots.

They are very selective feeders, preferring certain plants with high nutritional value, such as those rich in protein and energy. For example they have been known to feed on pods of Acacia trees, which are rich in protein and sugar. They also have strong sense of smell, which helps them detect the presence of water and food sources from great distances.

Foraging behavior and food selection of African elephants are complex and influenced by variety of factors. By understanding these complexities conservation efforts can be tailored to meet the needs of elephant’s populations and promote their long-term survival.

Required

(a. Examine the factors which influence diet selection in both the dry and wet seasons for African Elephants (10marks)

(b. Examine the primary food sources for African elephants , and show how they gather food (10marks)

(c. Examine the factors which influence diet and food selection for African elephants(10 marks)

(d. In your opinion, which conservation efforts should be implemented to ensure long term sustainability of African Elephants populations considering their foraging behavior and food selection (10 marks)

Question 2:

Case study 2

Chimpanzees (pan troglodytes are one of the closest relatives of humans and are known for their complex social behavior. They live in large communities, often with multiple males, females and their offspring. Understanding the social behavior on chimpanzees can provide insights into the evolution of human social in animal societies.

Chimpanzees live in a hierarchical society, with dominant individuals holding higher ranks than subordinate ones. Dominant males often lead the group and have priority access to food and mating opportunities. Females also form close bonds with each other and play an important role in maintaining social stability. They hunt in groups using coordinated attacks to catch prey. This cooperative behavior allows them to obtain food which would be very difficult to catch alone.

Chimpanzees share food, particularly with each other often in exchange for social favors. These social behaviors help to strengthen social bonds and reduce stress. Grooming is an important way for chimpanzees to show affection and build relationship.

Required

(a. Describe the role of dominant males in chimpanzee's societies (10 marks)

(b. Examine the benefit and challenges of chimpanzees living in groups (10 marks)

(c. Examine the factors which may cause aggression in chimpanzees living together (10 marks)

(d. Explain the strategies used by chimpanzees to resolve conflicts and how effective are these strategies in maintaining social stability (10 marks)

SECTION B

Answer any Three Question

Question 1:

a. Describe how tourism can be used as a tool for conservation and biodiversity protection (10 marks)

b. Examine the associated potential risks associated with conservation and biodiversity protection. (10 marks)

Question 2:

Discuss the adaptations and socialization strategies that enable carnivores to thrive in their environments, using specific examples to illustrate your answer. (20 marks)

Question 3:

Analyze the role of human activities in contributing to habitat loss for wildlife and discuss the potential solutions to address these issues (20 marks)

Question 4:

a. Discuss the adaptations of desert animals that enable them to conserve water and survive in arid environments. (10 marks)

b. In your own opinion, elaborate on the strategies you would recommend for reversing the threatening desert in Karamoja region so as to save Kideo valley National park. (10 marks)

Question 5:

a. Suppose you are a tourism operator designing a wildlife watching tour in a sensitive environment ecosystem. How would you use your knowledge of animal adaptations to minimize your impact on the environment and respect the animals (10 Marks)

b. Examine some of the major tourist activities you would design for your tourist interested in visiting the desert environments (10 marks)

Question 6:

a. Examine the common types of behavior in animas and show how these behaviors help them to survive (10 marks)

b. Examine the threats of competition in animals (10marks)

Question 7:

a Discuss the characteristics of mammals that enable them to thrive in a wide range of environments. (10 marks)

b. Examine the advantages and disadvantages of Viviparity in mammals (10 marks)

Question 8:

a. Analyze the adaptations of ruminant herbivores such as cows and deer's and explain how their four chambered stomach helps them digest plant material. (10 marks)

b. Describe the different types of herbivores, and explain what types of plant material they feed on (10 marks)

Question 9:

Analyze the impacts of human wildlife populations and wildlife populations and discuss potential solutions for mitigating them (20 mark)

Question 10:

a. Examine the potential consequences of over tourism on wildlife viewing experiences (10 marks)

b. Discuss the role of local communities in ensuring sustainable tourism management (10 mark)

Question 11:

a. Examine the key factors which drive evolution of animal s species. (10 marks)

b. Describe the adaptations that have evolved in animals to survive in

extreme environments such as deserts, deep sea, and Polar Regions. (10 marks)

Question 12:

You are a tour operator planning to launch a new wildlife safari tour in a national ark. How would you ensure that your tour is sustainable and minimizes its impacts on wildlife and ecosystems? (20 marks)