



# **GRE TSA UNIVERSITY - THIKA**

## **UNIVERSITY EXAMINATIONS JANUARY - APRIL 2021 SEMESTER**

### **CERTIFICATE IN TRAVEL & TOUR GUIDING**

**COURSE CODE: CTTG 008**

**COURSE TITLE: MAMMOLOGY**

**DATE: 11 MAY 2021**

**TIME: 11.30 AM - 1.30**

**PM**

#### **INSTRUCTIONS TO CANDIDATES**

1. SECTION A IS **COMPULSORY**.
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **DO NOT** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

**CAUTION:** All exam rooms are under CCTV surveillance during the examination period.

## SECTION A: COMPULSORY

### QUESTION ONE

- a) Define the following terms;
- (i) Divergent evolution [2 Marks]
  - (ii) Convergent evolution. [2 Marks]
  - (iii) Mammology. [2 Marks]
  - (iv) Taxonomy [2 Marks]
  - (v) Territoriality. [2 Marks]
- b) Differentiate the following terms;
- (i) Hibernation versus Estivation. [2 Marks]
  - (ii) Predator versus Prey. [2 Marks]
  - (iii) Tusks versus Horns. [2 Marks]
- c) Describe how the following influence reproduction in mammals;
- (i) Hormonal regulation. [2 Marks]
  - (ii) Delayed fertilization and implantation. [2 Marks]
  - (iii) Environmental cues. [2 Marks]
- d) Define the following and list two characteristics and at least one example of each;
- (i) Monotremes. [2 Marks]
  - (ii) Marsupials. [2 Marks]
  - (iii) Placental mammals. [2 Marks]
- e) (i) Define torpor. [2 Marks]
- (ii) List three advantages and two disadvantages of torpor in mammals. [5 Marks]
- (iii) Outline five sense organs and the specific information each relays to the nervous system.

[5

Marks]

## SECTION B: ANSWER ANY THREE QUESTIONS

### QUESTION TWO

List five characteristics that define mammals in each of the following orders.

- a) Order Primates [5 Marks]
- b) Order carnivora [5 Marks]
- c) Order insectivora [5 Marks]
- d) Order chiroptera. [5 Marks]

### QUESTION THREE

- a) Explain the two types of evolution in mammals. Give examples for each. [10 Marks]
- b) Discuss the mammalian environmental physiology in relation to thermoregulation [10 Marks]

### QUESTION FOUR

- a) What is the main threat to mammal habitats in Kenya? [2 Marks]
- b) Describe four ways in which habitat loss can be combated. [8 Marks]
- c) Discuss five roles of mammals in an ecosystem. [10 Marks]

### QUESTION FIVE

- a) Describe the following social behaviours giving examples;
- (i) Reproductive behaviour. [5 Marks]
  - (ii) Group behaviour. [5 Marks]
- b) Discuss five benefits of mammal conservation in Kenya. [10 Marks]

