



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS  
2018/2019 ACADEMIC YEAR  
FIRST YEAR SECOND SEMESTER**

**SCHOOL OF TOURISM AND NATURAL RESOURCE  
MANAGEMENT  
CERTIFICATE IN TOURISM AND WILDLIFE  
MANAGEMENT**

**COURSE CODE: CTW 016  
COURSE TITLE: BIOLOGICAL SCIENCES II**

**DATE: 28<sup>TH</sup> AUGUST, 2019**

**TIME: 1430 - 1630 HRS**

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## **INSTRUCTIONS TO CANDIDATES**

This paper has two sections A & B.

Answer **ALL** questions in Section A and any **TWO** in Section B.

## **SECTION A (30mks)**

### **QUESTION:1.**

- (i) Give meanings of the following terms (2mks)
  - (a) Animal biology
  - (b) Ethology
- (ii) Distinguish between the following terms: (6mks)
  - (a) Protostome and deuterostome
  - (b) Coelomate and pseudocoelomate
  - (c) Protozoa and metazoan
- (iii) State the distinguishing features between prokaryotes and eukaryotes. (5mks)
- (iv) Briefly explain the features used to classify animals. (3mks)
- (v) While giving examples explain the various sources of binomial nomenclature. (10mks)
- (vi) How does the segmentation of an annelid worm differ from the repeating units of the body of a tapeworm? (4mks)

## **SECTION B: Answer any TWO questions.**

### **QUESTION 2.**

- (i) State **three** theories that explain the origin of metazoan. (3mks)
- (ii) Using a flow diagram illustrate the levels of organization of metazoans. (10mks)
- (iii) Explain **four** importance of using binomial nomenclature system. (4mks)
- (iv) Identify **three** domains of classification. (3mks)

### **QUESTION 3.**

- (i) While giving examples in each case describe **three** main animal body plans. (6mks)
- (ii) Differentiate between Archaeobacteria and Eubacteria. (4mks)
- (iii) How does the animal's body size affect its energy requirements? (2mks)
- (iv) State the rules of writing binomial names. (3mks)
- (v) State the characteristics of birds. (5mks)

### **QUESTION 4.**

- (i) Identify **three** kingdoms of life consisting of multicellular eukaryotic organisms. (3mks)
- (ii) Explain **four** facts that support the classical colonial theory. (4mks)
- (iii) Other than body size, explain two factors affecting animal's energy requirement. (4mks)
- (iv) Describe the **two** major cavities found in vertebrate animals. (4mks)
- (v) State **five** characteristics of animals. (5mks)

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