

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE IN ANIMAL HEALTH

BIOL 00100: BOTANY AND ZOOLOGY

STREAMS: CERT ANHE Y1S1

TIME: 2 HOURS

DAY/DATE: TUESDAY 10/04/2018

8.30 A.M – 10.30 A.M

INSTRUCTION:

- **Answer ALL questions in section A and any two in section B**
- **Do not write anything on the question paper**
- **Use illustrations where appropriate to enhance your answers**

SECTION A (30MARKS)

1. Explain what each of the following branches of biology is involved in: [5marks]
 - (i) Taxonomy
 - (ii) Ethology
 - (iii) Herpetology
 - (iv) Myrmecology
 - (v) Histology
2. (a) Distinguish between:
 - (i) Prokaryotic and eukaryotic cells [2marks]
 - (ii) Mitosis and meiosis with regard to daughter cells obtained and their ploidy. [3marks]
3. Describe the zonation of the root tip. [5marks]

4. (a) In the binomial nomenclature, state the taxon describe by the:
- (i) First descriptor [½ mark]
 - (ii) Second descriptor [½mark]
- (b) In writing names of organisms, state the descriptor that begins with the:
- (i) Capital letter [½mark]
 - (ii) Small letter [½mark]
- (c) Write the following names of organisms correctly (if incorrect) using the binomial nomenclature: [3marks]
- (i) Oryza sativa
 - (ii) Mangifera Indica
 - (iii) LANTANA CAMARA
 - (iv) ZEA MYS
 - (v) Coffea Arabia
 - (vi) Cammelia sinensis
5. Study the diagram below and answer the questions that follow:

(b) Identify the organism shown in the diagram. [1mark]

- (b) Name and state the functions of the structure labeled K. [2marks]
- (c) Name the space labeled L. [1mark]
- (d) State whether the cell is prokaryotic or eukaryotic. [1mark]

SECTION B (40MARKS)

6. (a) (i) Define the term organ system. [2marks]
- (ii) List the organ systems in the human body. [5marks]
- (b) With the aid of sketches, discuss the types of inflorescences found among plants. [13marks]
8. Write an essay on the classification of angiosperms. [20marks]
8. Discuss the structure of the animal cell and the functions of its parts. [20marks]
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