

ZOO 200E



ALUPE UNIVERSITY
COLLEGE
Bastion of Knowledge...

P.O.Box 845-50400 Busia(K)
principal@auc.ac.ke
Tel: +254 741 217 185
+254 736 044 469
off Busia-Malaba road

OFFICE OF THE DEPUTY PRINCIPAL
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

UNIVERSITY EXAMINATIONS

2018 /2019 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF
EDUCATION (SCIENCE)**

COURSE CODE: ZOO 200E

COURSE TITLE: SYSTEMATICS AND TAXONOMY

DATE: 19TH DECEMBER, 2018

TIME: 2.00 PM – 5.00 PM

INSTRUCTIONS TO CANDIDATES

- SEE INSIDE



THIS PAPER CONSISTS OF 3 PRINTED PAGES

PLEASE TURN OVER

ZOO 200E

ZOO 200E: SYSTEMATICS AND TAXONOMY

STREAM: BED (SCIENCE)

DURATION: 3 Hours

INSTRUCTIONS TO CANDIDATES

- i. Answer *ALL* questions from section A and any *THREE* from section B.
 - ii. Diagrams should be used whenever they serve to illustrate the answer.
 - iii. Do not write on the question paper.
-

SECTION A (24 MARKS)

Question One

- a) Define the following terms;
 - i. Phylogeny (1 Mark)
 - ii. Biosystematics (1 Mark)
 - iii. Species (1 Mark)
- b) State the rules that govern binomial nomenclature (4 Marks)
- c) What three main characteristics are currently used to identify living organisms? (3 Marks)
- d) What is the significance of classification? (2 Marks)

Question Two

- a) Differentiate the following terms
 - i. Monophyletic group and polyphyletic group (2 Marks)
 - ii. Clade and variety (2 Marks)
- b) Outline any three leaf features used to identify plants (3 Marks)
- c) Highlight the contribution of Carolus Linnaeus in taxonomy (2 Marks)
- d) Describe taxonomic character in numerical versus descriptive terms (3 Marks)

SECTION B (36 MARKS)

Question Three

- a) What is taxonomy? (2Marks)
- b) Discuss the five sources of phylogenetic evidence (10 Marks)

ZOO 200E

Question Four

- a). Distinguish between artificial and natural classification (2 Marks)
- b) Name any two identification keys (2 Marks)
- c) State the demerits of artificial classification (5 Marks)
- d) Describe Phylocode as used in modern taxonomy (3 Marks)

Question Five

Give an account of the four phases of plant systematics (12 Marks)

Question Six

- a). Classify a dog using the various taxonomic units (7 Marks)
- b). Critique the following characteristics of living things.
 - i. Growth (2 Marks)
 - ii. Metabolism (3 Marks)

Question Seven

- a). Compare and contrast anagenesis and cladogenesis. (4 Marks)
- b). Discuss any four principles of International Code of Botanical Nomenclature. (8 Marks)

