



**ALUPE UNIVERSITY**  
COLLEGE

*...Bastion of Knowledge...*

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OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

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## UNIVERSITY EXAMINATIONS

### 2021/2022 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER MAIN EXAMINATION

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

**COURSE CODE: ZOO 112E**

**COURSE TITLE: VERTEBRATE ZOOLOGY**

**DATE: 31/05/2022**

**TIME: 2:00 P.M.-5:00 P.M.**

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### INSTRUCTIONS TO CANDIDATES

- SEE INSIDE

**THIS PAPER CONSISTS OF 3 PRINTED PAGES**

**PLEASE TURN OVER**

**REGULAR – MAIN EXAM**

**ZOO 112E: VERTEBRATE ZOOLOGY**

**STREAM: BED (SCIENCE)**

**DURATION: 3 Hours**

**INSTRUCTIONS TO CANDIDATES**

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

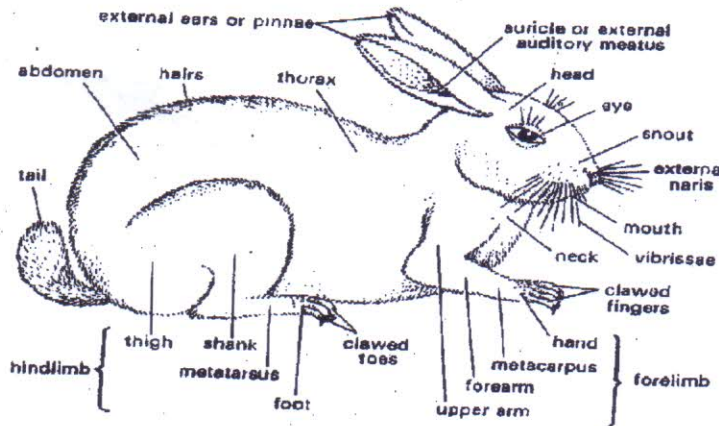
**SECTION A (30 MARKS)**

**Question One**

- a) Describe the structure of the notochord found in vertebrates. (2 Marks)
- b) Explain the role of scales found on early Agnathas body. (4 Marks)
- c) Describe any three functions of the notochord. (6 Marks)
- d) Describe three events that can trigger adaptive radiation. (3 Marks)

**Question Two**

- a) Highlight any four features that distinguish a reptile from other animals. (8 Marks)
- b) Describe the distinguishing feature of scales found in reptiles compared to ones in fishes. (4 Marks)
- c) Study the organism below:



What external features differentiate the organism from a fish? (3 Marks)

**SECTION B (40 MARKS)**

**Question Three**

- a) List two outstanding features of Placoderms (2 Marks)
- b) Explain any four significant evolutionary trends that occurred in later agnathans. (8 Marks)

**Question Four**

- a) Justify the features that have made fishes like tilapia more successful in aquatic habitat. (6 Marks)
- b) Describe how scales and long tails in fish aid in movement in water. (4 Marks)

**Question Five**

- a) Explain six external features of a toad and a frog. (6 Marks)
- b) What is the function of scales in reptiles? (4 Marks)

**Question Six**

- a) Explain six features of birds that make them efficient in flight. (6 Marks)
- b) Differentiate locomotion in birds and amphibians. (4 Marks)

**Question Seven**

- a) What is the role of fur on the mammalian skin? (2 Marks)
- b) Relate the adaptation of rabbits to their ability to live and thrive, in spite of their numerous enemies. (8 Marks)

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