



MACHAKOS UNIVERSITY

University Examinations 2022/2023 academic Year

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (BIOLOGY)

SZL 100 : GENERAL ZOOLOGY

DATE:

TIME:

INSTRUCTIONS

1. Answer Question 1 (compulsory) and **any two** questions in Section B.
2. Use clean well labelled diagrams wherever appropriate.

SECTION A: QUESTION 1. COMPULSORY (30 MARKS)

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| a) | Outline any three classes of subphylum sarcodina. | (3 marks) |
| b) | Justify the study of invertebrates in zoology. | (3 marks) |
| c) | Explain why echinodermata are considered closely related to chordates. | (3 marks) |
| d) | Distinguish between agnathans and gnathostomes. | (3 marks) |
| e) | Outline any three sources of animal diversity. | (3 marks) |
| f) | Distinguish between Lamarkian and Darwinian theories of evolution. | (3 marks) |
| g) | Differentiate between eccrine and apocrine glands. | (3 marks) |
| h) | Outline three features which make annelids superior to other worms. | (3 marks) |
| i) | Describe skeleton modifications in birds. | (3 marks) |
| j) | Briefly describe circulation in molluscs. | (3 marks) |

SECTION B: ANSWER ANY TWO QUESTIONS

QUESTION TWO (20 MARKS)

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| a) | Discuss reasons for the success of arthropods on earth. | (10 marks) |
| b) | Describe the generalized life cycle of sporozoans. | (10 marks) |

QUESTION THREE (20 MARKS)

Discuss the economic and ecological importance of class Aves.

QUESTION FOUR (20 MARKS)

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| a) | Discuss any five challenges tetrapods overcame to colonize land. | (10 marks) |
| b) | Describe the digestive system in Lizards. | (10 marks) |

QUESTION FIVE (20 MARKS)

Describe the characteristics of amniotes.