



MAASAI MARA UNIVERSITY

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

**SCHOOL OF TOURISM & NATURAL RESOURCES
MANAGEMENT
DIPLOMA IN TOURISM AND WILDLIFE
MANAGEMENT**

**COURSE CODE: NDTW 121
COURSE TITLE: NATURAL HISTORY OF
INVERTEBRATES**

DATE: 4TH DECEMBER 2018

TIME: 8:30 AM - 10:30 AM

INSTRUCTION TO CANDIDATES

- This paper has two sections A & B.
- Answer question **ONE** in section A and any **TWO** in section B.

This paper consists of 2 printed pages. Please turn over.

SECTION A: QUESTION ONE IS COMPUSLORY (30mks)

QUESTION 1

- (i) Briefly explain the following terms: (3mks)
(a) Sexual dimorphism.
(b) Haplodiploidy
(c) Eucoelomate
- (ii) State the function of the following structures found in invertebrates: (3mks)
(a) Corona
(b) Radula
(c) Clitellum
- (iii) Describe the distinguishing features of members of phylum porifera. (4mks)
- (iv) While giving examples in each case state the two classes of phylum Annelida and state their distinguishing features. (6mks)
- (v) Describe **five** general characteristics of invertebrates. (5mks)
- (vi) Describe the **two** morphological body forms of Cnidarians. Give an example of organism in each case. (4mks)
- (vii) Explain the economic and biological importance of insects. (5mks)

SECTION B(40mks): answer any two questions.

QUESTION 2

- (i) Distinguish between the following terms: (4mks)
(a) Internal fertilization and external fertilization
(b) Acoelomate and pseudocoelomate
- (ii) Describe the distinguishing characteristics of phylum Mollusca. (5mks)
- (iii) Name and highlight the key features of the classes of phylum Mollusca. (7mks)
- (iv) What are the distinguishing characteristics of phylum Nemertea. (4mks)

QUESTION 3

- (i) State the distinguishing features of Platyhelminthes. (4mks)
- (ii) Identify and briefly describe the characteristics of the classes of phylum Platyhelminthes. (8mks)
- (iii) Describe the general characteristics of Rotifers. (4mks)
- (iv) How do the male and female rotifers differ? (2mks)
- (v) Explain the ecological importance of members of phylum Rotifera. (2mks)

QUESTION 4

- (i) *Caenorhabditis elegans* is a nematode that has been used greatly in biological research. Give **five** reasons for this. (5mks)
- (ii) Nematodes and Arthropods are in super phylum Ecdysozoa. State **one** similarity and **three** differences between them. (4mks)
- (iii) While giving an example in each case briefly describe four sub-phyla of the living forms in phylum arthropoda. (8mks)
- (iv) What are the distinguishing features of phylum arthropoda. (3mks)

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