



MAASAI MARA UNIVERSITY

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

**SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
DIPLOMA IN TOURISM AND WILDLIFE
MANAGEMENT**

COURSE CODE: NDTW 121

**COURSE TITLE: NATURAL HISTORY OF
INVERTEBRATES**

DATE: 19TH AUGUST, 2019

TIME: 0830 - 1030 HRS

INSTRUCTION TO CANDIDATES

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

SECTION A (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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