

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE GENERAL DEGREE LEVEL I
(SEMESTER I) EXAMINATION – JUNE 2023

Subject : Zoology

Course Unit : ZOO 1112 – Invertebrate Diversity I

Time: 01½ hours

Index No :

Answer the **Part A** and **any two** questions from **Part B**.

Illegible handwriting would be penalized.

Question No.	Marks
Part A	1
	2
	3
	4
Part B	1
	2
	3
Assessment	
Total	

Part A (40 minutes)

1. (i). Write **any four** periods belonged to Paleozoic era.

1. 2.
 3. 4.

- (ii). Mention **two differences** between polynomial nomenclature and binomial nomenclature.

1.

 2.

- (iii). Mention **two** groups of **winged insects** that appeared in the **Carboniferous period**.

1.
 2.

- (iv). Mention **two functions** of the body covering of Protozoans.

1.
 2.

(v). Mention **modes of nutrition** observed in **Protozoans**.

- (1). (2).
(3). (4).

2. (i). (a). Mention the type of **cells** found in **pinacoderm of Poriferans**.

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(b). State **two functions** performed by **Choanocytes** of Cnidarians.

1.
2.

(ii). (a). Mention **two differences** between **Asconoid** and **Leuconoid** type water canal systems.

1.
.....
2.
.....

(b). State **two** types of **asexual reproduction** methods of **Poriferans**.

1.
2.

(iii). Name the **three** types of **larval forms** found in **Cnidarians**. Of these larval forms which is **common** to all the three classes of Cnidarians?

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(iv). Name **three** types of **cells** found in **ectoderm of Cnidarians** and mention **one function** of each cell type you mentioned.

1.
2.
3.

- (v). Mention **three** characteristic features of class **Anthozoa**.
1.
 2.
 3.
3. (i). In which class of Phylum Platyhelminthes includes the Opisthaptor? Mention its function and location.
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- (ii). State the **structures** found on the **scolex of Cestodes**.
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- (iii). State **three** functions of **Nematode cuticle**.
1.
 2.
 3.
- (iv). Mention the **main difference** that can be seen in the **buccal cavity** of Genus **Ancylostoma** and Genus **Necator**.
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- (v). State the importance of **stylet** in **plant parasitic nematodes**.
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4. (i). What is an **indicator organism**? Give examples of Polychaeta species that can be used as bio indicators of organic pollution and seawater temperature.
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Index No :

- (ii). What is **Vermicomposting**? Give **two** **benefits** of using **vermicompost** in agriculture.

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- (iii). Using suitable examples, write **one** ecological importance and **one** economic importance of Class – Hirudinea and Class – Polychaeta.

	Ecological importance	Economic importance
Class – Hirudinea		
Class – Polychaeta		

- (iv). Outline the **characters** that can be used to **identify** an Epigeic earthworm from an Anecic earthworm.

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- (v). What is **cephalization**? Briefly explain the **evolutionary significance** of cephalization.

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(40 minutes)

(40 marks)

Part B

1. Briefly describe the following;

- (i). Locomotory organelles of Protozoans.
- (ii). "Polymorphism" in Cnidarians.

(25 minutes)

(15 marks)

2. Write an account on Turbellarian diversity.

(25 minutes)

(15 marks)

3. "External body form, mode of locomotion and feeding methods seen in Annelids are closely related to their habitats". Justify this statement with suitable examples representing different classes of Annelids.

(25 minutes)

(15 marks)

 For the assessment

(30 marks)

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