



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES, MIHINTALE.**

**B.Sc. (General) Degree in Applied Sciences
First year – Semester I Examination – April/May 2015**

BIO 1202 - ANIMAL DIVERSITY I

Index Number:

Time: Two (02) hours

Answer question 1 (compulsory) and three questions from questions 2-5.

Illustrate your answer with labelled diagrams where appropriate.

- 1) a) Describe what a nerve net is and name two phyla that bear nerve nets as their nervous system.

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(5 marks)

- b) Contrast the nerve net to the type of nervous system seen in bilateral worms.

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(6 marks)

- c) Briefly describe the advancements in the arthropod nervous system in relation to other invertebrate phyla.

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(8 marks)

d) Echinodermites do not show cephalization. How does this help with their mode of life?

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(6 marks)

- 2) Describe the basic body plan of the Mollusca and explain how each class of the phylum differs from the basic plan with respect to the shell, radula, foot, mantle cavity, gills, head and the circulatory system.
- 3) Arthropods are one of the most successful groups of invertebrates. Discuss the adaptations and features that made this group highly successful.
- 4) a) Describe the characteristic features of the Echinodermata.
b) Distinguish the different classes of echinoderms using the major characteristics of each class.
- 5) Write short notes on the following.
 - a) Class Oligochaeta
 - b) Open and closed circulatory systems
 - c) Protostomes and Deuterostomes
 - d) Protonephridia and Nephridia