

UNIVERSITY OF RUHUNA
FACULTY OF FISHERIES AND MARINE SCIENCES & TECHNOLOGY
Academic Year 2023/2024

Bachelor of Science Honors in Fisheries and Marine Sciences Degree

Level I Semester I Examination - October/November 2024

FAQ 1122: Evolution and Biology of Shell-fish

Time: 1 hour & 30 minutes

Answer all questions in Part A and select any two (02) questions from Part B

Part A

Answer all questions

(Time: 30 minutes)

1. List out five (05) general characters of class Crustacea. (10 marks)
2. Define the term "molting". Briefly explain the importance of molting in crustaceans. (10 marks)
3. State the main functions of the following structures found in crustaceans.
 - a) Green glands
 - b) Antennae
 - c) Stalked eyes
 - d) Gills
 - e) Rostrum(10 marks)
4. How are the shrimps and prawns distinguished with respect to their body plan? (15 marks)
5. Mention 05 different sensory organs observed in Phylum Mollusca. Write the function of each. (15 marks)
6. Briefly explain the structure of the bivalve shell using suitable diagrams. (20 marks)
7. Briefly describe the gas exchange mechanism in molluscs with the help of ctenidia. Use appropriate diagrams. (20 marks)

Part B

Answer any two (02) questions from Part B

(Time: 1 hour)



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FAQ 2113

1. a) Write an essay on the morphological features of a typical shrimp. Use diagrams wherever necessary.

(60 marks)

- b) Briefly describe the life cycle of a shrimp.

(40 marks)

2. "Shell coiling and torsion are two different phenomenon that can be identified in the Class Gastropods". Justify this statement using suitable diagrams.

(100 marks)

3. Write short notes on any four (04) of the following.

- a) Sexual dimorphism in crustaceans
- b) Life cycle of lobsters
- c) Feeding appendages of crabs
- d) Feeding mechanism in bivalves
- e) Commercial importance of sea cucumbers
- f) Adaptations for predator avoidance found in cephalopods

(100 marks)

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