

**BACHELOR OF SCIENCE (CBCS-2018 COURSE)**  
**S. Y. B. Sc. Sem-III :SUMMER- 2022**  
**SUBJECT : ZOOLOGY : FUNCTIONAL ANATOMY OF NON-CHORDATES-II &**  
**BIODIVERSITY**

Day : Tuesday  
Date : 19-07-2022

**S-18356-2022**

Time : 03:00 PM-06:00 PM  
Max. Marks : 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagrams **WHEREVER** necessary.

**Q.1** Attempt any **TWO** of the following: **(12)**

- a) Describe water vascular system of starfish.
- b) Give general characters of phylum echinodermata. Add a note on class Asteroidea.
- c) Write food, feeding mechanism and physiology of digestion in starfish.

**Q.2** Attempt any **TWO** of the following: **(12)**

- a) Describe development of nematoda.
- b) Explain metamorphosis in insects.
- c) Describe shell modification in mollusca.

**Q.3** Attempt any **TWO** of the following: **(12)**

- a) How the light is produced by the animals in bioluminescence? Add a note on its significance.
- b) Give general characters of phylum arthropoda. Mention the classes with suitable example.
- c) Write an essay on mimicry in insects.

**Q.4** Attempt any **THREE** of the following: **(12)**

- a) Write systematic position of starfish with reasons.
- b) Write general characteristics of phylum hemichordata.
- c) Sketch and label digestive system of starfish.
- d) Write general characters of mollusca.

**Q.5** Attempt any **FOUR** of the following: **(12)**

- a) Write any three characters of class pelecypoda.
- b) Write habits and habitat of *Asterias rubens*.
- c) Write short note on types of bioluminescence.
- d) Write a note on foot in gastropoda.
- e) Write a note on autotomy and regeneration in starfish.
- f) Explain foot in cephalopoda.