

Roll No. ....

Total Pages : 3

**325102**

**December 2023**

**B.Sc. (Life Science) – I SEMESTER**

**Animal Diversity–I (NBLs–102)**

Time : 3 Hours]

[Maximum Marks : 75

*Instructions :*

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*
4. *Draw the diagrams wherever required.*

**PART–A**

1. (a) What are barrier reefs? (1.5)  
(b) Draw the diagram of nematocysts. (1.5)  
(c) Define diffuse type of nervous system. (1.5)  
(d) Write the economic importance of arthropods. (1.5)  
(e) Enlist the prominent characters of molluscan class cephalopoda. (1.5)  
(f) What is the difference between worker bees and drones? (1.5)

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- (g) What do you understand by book lungs? (1.5)  
(h) What do you understand by byssus apparatus? (1.5)  
(i) Enlist the prominent characters of echinoderm class holothuroidea. (1.5)  
(j) What do you understand by retrogressive metamorphosis? (1.5)

**PART-B**

2. (a) Discuss sycon and leucon type canal system along with a detailed diagram. (8)  
(b) With the help of diagram explain the structure of miracidium larva. (7)
3. (a) Discuss the basic body structure of cnidarians. (5)  
(b) Write a note on corals. (10)
4. Explain the life cycle of *Ascaris lumbricoides* with diagram. (15)
5. (a) Enlist the prominent features of following arthropod classes:  
(i) Arachnida. (1.5)  
(ii) Crustacea. (1.5)  
(iii) Merostomata. (1.5) (6)  
(b) Elaborate different types of metamorphosis found in insects. Also explain the role of hormones in insect metamorphosis. (9)

6. (a) Discuss the following echinoderm larva with diagram:  
(i) Ophiopluteus.  
(ii) Branchiolaria.  
(iii) Doliolaria. (9)  
(b) Explain the process of pearl formation. (6)
7. (a) Describe the ambulacral system found in echinoderms. (8)  
(b) Discuss the phenomenon of torsion found in gastropoda. (7)