

2024

(FYUGP)

(2nd Semester)

ZOOLOGY

(Minor)

Paper Code : ZOO/M-2

(Non-Chordates—II : Coelomates)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

(PART : B—DESCRIPTIVE)

(Marks : 50)

*The figures in the margin indicate full marks
for the questions*

1. Explain the evolution and significance of coelom. 6+4=10

Or

Give the general characteristics of Onychophora. 10

2. Write the general characters of phylum Annelida. 10

Or

What is the economic importance of Annelida? Enumerate the types of locomotion in Annelida. 3+7=10

3. Describe in detail the mechanism of vision in Arthropoda. 10

Or

What are the different types of metamorphosis in insects? Add a note on parthenogenesis in insects. 6+4=10

4. Give the general characteristics of phylum Mollusca. 10

Or

Illustrate the process of torsion and detorsion in Gastropoda.

5. Elucidate the water-vascular system in starfish. 10

Or

Explain in detail the larval forms in Echinodermata with proper diagrams.

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Paper Code : ZOO/M-2

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(PART : A—OBJECTIVE)

(Marks : 25)

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I. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×15=15

1. The evolutionary significance of coelom and metamerism in ancient organism is inclined towards

(a) appropriate attachment to substratum ()

(b) efficiency and flexibility to movement ()

(c) convenient digestion and excretion ()

(d) None of the above ()

2. Which of the following is true for onychophorans?

- (a) Terrestrial, carnivorous, free-living ()
- (b) Only viviparous, blood is red in colour ()
- (c) Laterally symmetrical, well-differentiated head ()
- (d) Trilobed brain, distinct ganglia ()

3. Biologists' curiosity in onychophorans is driven by

- (a) interest in understanding the evolution of arthropods ()
- (b) their classification as non-ancient animal ()
- (c) their spongy legs ()
- (d) their evolution from annelids ()

4. *Pheretima* belongs to the class

- (a) Polychaeta ()
- (b) Oligochaeta ()
- (c) Hirudinea ()
- (d) Archiannelida ()

5. Annelids are

- (a) bilaterally symmetrical and triploblastic ()
- (b) bilaterally symmetrical and diploblastic ()
- (c) radially symmetrical and diploblastic ()
- (d) asymmetrical and triploblastic ()

6. Excretory system of annelids consists of metamerically disposed coiled tubes is called

- (a) Malpighian tubules ()
- (b) kidney ()
- (c) nephridium ()
- (d) contractile vacuole ()

7. Book lung is a characteristic of

- (a) Annelida ()
- (b) Arthropoda ()
- (c) Echinodermata ()
- (d) Mollusca ()

8. Which of the following is false for an insect?
- (a) Respiration by tracheae ()
- (b) Development with metamorphosis ()
- (c) They are unisexual ()
- (d) Two pairs of legs ()
9. The complete metamorphosis occurs in
- (a) silverfish ()
- (b) mosquitoes ()
- (c) true bugs ()
- (d) cockroaches ()
10. The excretory organs of Arthropoda are
- (a) flame cells ()
- (b) nephridia ()
- (c) Malpighian tubules ()
- (d) None of the above ()
11. Pearl oyster belongs to the class
- (a) Bivalvia ()
- (b) Cephalopoda ()
- (c) Gastropoda ()
- (d) Scaphopoda ()

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12. Torsion is the characteristic of
- (a) Gastropoda ()
- (b) Pelecypoda ()
- (c) Scaphopoda ()
- (d) Aplousophora ()
13. Excretory organ in Echinodermata is
- (a) skin ()
- (b) nephridium ()
- (c) book lung ()
- (d) absent ()
14. Larval form of Echinodermata is
- (a) bipinnaria ()
- (b) brachiolaria ()
- (c) doliolaria ()
- (d) All of the above ()
15. Water-vascular system is a distinctive feature of
- (a) Mollusca ()
- (b) Echinodermata ()
- (c) Arthropoda ()
- (d) Annelida ()

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II. Write short notes on any five of the following : 2×5=10

1. Coelom

2. Triploblastic vs. Diploblastic

3. Metamerism

4. Excretory organ in annelids

5. Ocelli

6. Pearl formation

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(12)

7. Tube feet

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(13)

8. General characters of Arthropoda

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